



ABSTRACT BOOK



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MAINTANCE IMMUNOGLOBULINE THERAPY IN SYMPTOMATIC TREATMENT OF MYASTHENIA GRAVIS

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Introduction. Myasthenia gravis (MG) is a neuromuscular disorder that causes weakness in the skeletal muscles, which are the muscles your body uses for movement. It occurs when communication between nerve cells and muscles becomes impaired. This impairment prevents crucial muscle contractions from occurring, resulting in muscle weakness. MG is the most common primary disorder of neuromuscular transmission. This pathology occurs in about five people per 100.000. There is evidence, that the intravenous (IV) use of immunoglobulins (Ig) can help improve the condition of patients, but there is insufficient data on this. It was therefore examined response to maintenance IV Ig therapy in a cohort of MG patients.

Materials and Methods. It was reviewed all MG patient files treated with IV Ig in neuro-immunology clinic from 1/2005 to 9/2012. Patients treated with maintenance IV Ig for a minimum of one year were separately analyzed. Disease severity was evaluated according to the Myasthenia Gravis Foundation of America clinical classification.

Results. IV Ig was considered for maintenance therapy in 52 MG patients who had not responded to pyridostigmine, prednisone, azathioprine or combinations of these drugs. Fifteen patients did not improve with initial IV Ig while thirty seven patients had a beneficial response and were treated with maintenance IV Ig for an average of 5.9 years. Twenty three and fourteen patients achieved mild or moderate improvement respectively in disease activity while on IV Ig therapy but none achieved full remission. Beneficial response was associated with older age, bulbar presentation, seropositivity and a higher antibody titer and less with ocular presentation. IV Ig enabled reduction of other treatments, including pyridostigmine, prednisone and azathioprine.

Conclusion. In this retrospective study on a relative small cohort of MG patients maintenance IV Ig therapy was successful in reducing symptoms of MG but seems to be ineffective in inducing full remission or reducing disease activity. Having said that, IV Ig can be regarded as symptomatic therapy in MG.

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SYNTHESIS, PREDICTION AND EXPERIMENTAL CONFIRMATION OF PHARMAKOLOGICAL ACTIVITY OF 2-((4-AMINO-5-(FURAN-2-YL)-4H-1,2,4-TRIAZOLE-3-YL)SULFANYL)-N-ACETAMIDE DERIVATIVES

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Introduction. Despite the rapid progress in medicine and pharmacology observed in recent years, a treatment of inflammation remains a topical problem. Researchers devote a great care to this problem, especially the study of various heterocyclic

compounds such as 3-thio-2,4-triazoles and their condensed derivatives as potential non-steroidal anti-inflammatory drugs (NSAIDs). The prospective of these compounds is based on their high reactivity, low toxicity, availability of reagents for synthesis, solubility in most solvents and broad spectrum of biological activity. The aim. The targeted synthesis, prediction and experimental confirmation of the pharmacological activity of 2-((4-amino-5-(furan-2-yl)-4H-1,2,4-triazole-3-yl)sulfanyl)-N-acetamide as potential NSAIDs.

Materials and methods. 10 novel compounds of 2-((4-amino-5- (furan-2-yl)-4H-1,2,4-triazole-3-yl) sulfanyl)-N-acetamide with following radicals R1 = 4-OMe; R2 = H; R3 = 4-Bu; R4 = 4-OEt; R5 = 2-COOEt; R6 = 4-Et; R7 = 4-COOEt; R8 = 3-COMe; R9 = 4-NO₂; R10 = 3-OMe were received during the alkylation reaction of aryl substituted N- α -chloroacetamides of 2-((4-amino-5-(furan-2-yl)-2,4-dihydro-3H-1,2,4-triazoles-3-thiones. Prediction of pharmacological activity was conducted using the program «PASS-online». The predicted anti-exudative action was studied on the white male rats using experimental models of formalin-induced edema, which was modeled using subplantar introduction of 0,1 ml of 2% formalin solution in hind paw of rat. Paw volume was measured with the digital plethysmometer (IITC Life Science (USA)) before the introduction of newly synthesized compounds and after 4 hours followed the formalin injection (maximum swelling). The investigated substances were administered orally in a form of suspension and 3% starch mucus 1 hour before the maximum development of edema at a dose of 10 mg/kg.

Results of research. 10 new compounds of 2-((4-amino-5- (furan-2-yl)-4H-1,2,4-triazole-3-yl)sulfanyl)-N-acetamide was synthesized for the first time. PASS prediction of synthesized compounds indicates the presence of the anti-exudative activity (AA) of compounds with radicals R1; R2; R6; R7; R8; R9; R10 (37,0 - 81,5%). Among the studied derivatives AA of five leaders' compounds exceeds AA of the reference drug Diclofenac sodium (44,0%). According to the value of AA, new synthesized leaders' compounds are arranged as follows R8 – 53,0%, R6 – 61,1%, R9 – 62,9%, R1 – 70,3%, R2 – 81,5%.

Conclusions. For the first time we have synthesized 10 derivatives of 2-((4-amino-5-(furan-2-yl)-4H-1,2,4-triazole-3-yl)sulfanyl)-N-acetamide. 7 of 10 compounds demonstrate moderate or high AA (37,0 - 81,5%). Among the synthesized derivatives the following five leaders' compounds were selected: R8 (3-COMe) – 53,0%, R6 (4-Et) – 61,1%, R9 (4-NO₂) – 62,9%, R1 (4-O-Me) – 70,3%, R2 (H) – 81,5%, which indicates their prospects for further in-depth study as potential NSAIDs.

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INFLUENCE OF NEUROTICISM LEVEL ON EFFICIENCY OF PSYCHOSOCIAL ADAPTATION IN YOUNG PEOPLE

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Introduction. Personal adaptive potential (PAP) which determines the efficiency of psychosocial adaptation is one of major integrative features of psychic development.

Among the main characteristics of personality the one that indicates moral instability and may lead to development of autonomic disorders is neuroticism. Nowadays, the amount of various stress factors acting on human organism greatly influences the manifestation of neuroticism that causes the decrease of both PAP and level of general adaptation of a person. The aim of current research was to study the interrelation between neuroticism expression levels and efficiency of psychosocial adaptation in young people.

Materials and methods. The study was carried out in 50 students of 2nd course of KNMU aged 19-21, among them 17 men and 33 women. Research of PAP was done using the multilevel personal questionnaire “Adaptability” by Maklakov and Chermianin. The level of neuroticism was determined using Eysenck Personality Inventory (EPI).

Results of research. According to PAP index all examined people were divided into 3 groups – 1st group with high level of adaptation (6%), 2nd with sufficient (32%) and 3rd with low adaptation (62%). Regarding neuroticism level, in people of 1st group the high level of emotional stability was determined ($5,7 \pm 1,5$). In majority of 2nd group neuroticism level was estimated as medium ($11,7 \pm 2,7$), however, in 2% of people of that group the expressed neuroticism was determined. The 3rd group was heterogeneous according to neuroticism – in 2% of people low PAP was combined with emotional stability, in 12% with medium neuroticism and in 48% its high expression was determined; average value was $15,8 \pm 4,2$.

Conclusions. Research results revealed that the majority of examined students belong to the group of low psychosocial adaptation that can manifest in nervous disturbances and disorders of functional state in case of continuous influence of stress factors. The dependence of PAP upon neuroticism level was determined – the higher is neuroticism index, the lower is PAP. However, the efficiency of psychosocial adaptation is a multifactor, complex concept that is proved by cases of low PAP in people with high emotional stability. Results of the study prove the necessity of further research in that area and monitoring of people with low psychosocial adaptation with aim of preventing appearance of neurosis and similar pathological states in them.

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INFLUENCE OF DIDROGESTERONE ON THE NORMAL BACKGROUND OF PREGNANCY WITH THREATEN ABORTION

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Introduction. Dydrogesterone is a synthetic analog of natural progesterone, which has a high affinity for progesterone receptors, does not cause androgenic, estrogenic or corticoid side effects, does not have virilizing or masculinizing effect and can be used to treat miscarriage. The main pharmacological effects of this drug are the preparation of the endometrium for implantation (secretory transformation) and decrease in the contractility of the smooth muscles of the uterus. Spontaneous abortion is one of the topical problems of modern medicine, the frequency of which varies from 10 to 25%

to the number of all pregnancies, adversely affects the reproductive function of women and the usefulness of offspring. Therefore, the aim of our work was to study the effect of dydrogesterone on hormonal background of pregnant women with a threatening abortion.

Materials and methods. Under our supervision were 25 pregnant women in terms of 12-16 weeks. They were divided into two study groups. The first group consisted of 10 women with physiological pregnancy. The second group included 14 pregnant women with signs of threatening abortion, which was carried out preserving therapy with dydrogesterone. The level of estradiol and progesterone was determined by enzyme immunoassay using standard kits. The level of β -subunit of chorionic gonadotropin in human serum was determined by solid-phase enzyme-linked immunosorbent assay using a standard test system.

Results of research. The content of estradiol in the 2nd group before treatment was lower than in the physiological course of pregnancy (13.02 ng/ml) and was 12.54 ng/ml. The amount of progesterone in the blood of pregnant women of this group before treatment was 91.3 nmol/l, and in the group with the physiological course of pregnancy – 99.3 nmol/l. The parameters of chorionic gonadotropin content in women of the the 2nd study group were significantly lower before treatment than in pregnant patients from group 1 and were 25.4 IU/ml and 35.6 IU/ml, respectively. The content of estradiol in the blood of women with treat of interruption of pregnancy, 14 days after the conservative therapy with dydrogesterone, increased by 4% and amounted to 13.04 g/ml, while the level of progesterone increased by 7% (to 97.6 nmol/l), and chorionic gonadotropin – by 8% (27.5 IU/ml). Presumably, this effect is due to the stabilization of the synthethesis of sex steroids in the ovaries and placenta.

Conclusions. According to the results of this study, it can be concluded that dydrogesterone selectively and strongly binds to progesterone receptors eliminating the deficiency of progesterone and chorionic gonadotropin, thereby, reliably reduces the threat of premature termination of pregnancy.

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CHALLENGES OF ADAPTATION TO PHYSIOLOGICAL FACTORS IN PERSONS WITH SICKLE CELL DISEASE

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Introduction. Sickle cell disease (SCD) is characterized by intermittent vaso-occlusive events and chronic hemolytic anemia which result in tissue ischemia leading to acute and chronic pain as well as injuring of bones, lungs, liver, kidneys, brain, eyes, and joints. About 50 % of children with SCD experience either an overt or silent cerebral infarct; hemorrhagic stroke and aneurysm are more common in adults (M.R. DeBroun, 2016).

Materials and methods. The aim of research was an analysis of physiological factors which influence on adaptation of persons with SCD. A literature review was made

using various sources including PubMed, Scopus and Google Scholar. From approximately 1500 articles 52 were chosen according to the topic of research. Results of research. Patients with SCD have limited abilities for adaptation to different physiological factors such as dehydration, physical exercises, fluctuations of ambient temperatures and being at high altitudes. Hypoxia drives HbS polymerization and the resulting alterations in RBC physiology and the microcirculation (Stephan C. Rogers, 2016). Exercise and physical activity are known to induce marked metabolic changes, including lactic acidosis, tissue hypoxia and dehydration, all of which predispose towards HbS polymerization and vaso-occlusion. Even moderate exercise can induce significant hypoxia, impaired heart rate recovery, abnormal increases in pulmonary artery pressure and increased oxidative stress in patients with SCD. (R. I. Liem et al., 2017). Two ion transport pathways, the K^+-Cl^- cotransport and the Ca^{2+} -activated K^+ channel play prominent roles in the dehydration of sickle erythrocytes, causing rise of HbS concentration, and increases risk of vaso-occlusion (F. C. Brown, 2015). Extremes of both hot and cold weather have been found to precipitate acute complications. Exposing of patients with SCD to cold results in acute pain caused by peripheral vasoconstriction which results in greater deoxygenation of blood in the peripheries, HbS polymerization, therefore, sickle red cells cause vaso-occlusion, presumably in tissues near to the areas exposed to cold. (S.H. Embury, 2000). The harmful effects of high altitude in SCD for many years, principally was due to potential problems associated with low oxygen partial pressures in high altitude. The most frequently reported complication at altitude of aircraft above 2000 m is acute splenic infarction in people with SCD (D.J. Weatherhall, 1994).

Conclusions. 1. Analysis of reported figures has indicated that patients with SCD have limited abilities for adaptation to different physiological factors. 2. Such physiological factors as physical exercises, hypoxia, dehydration, extreme temperatures and high are beneficial for polymerization of HbS resulting in progression of sickle RBCs hemolysis, increase of hypoxia severity and oxidative stress that significantly impact disease prognosis and outcome. 3. When these factors are brought under control it will ultimately augment measures aimed at managing the clinical disorders of sickle cell disease.

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FORENSIC AND MEDICAL EXPERTISE OF INJURIES ARISING IN DROP FROM HEIGHT TO WATER

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Introduction. The trauma that occurs when a body falls from a height to an obtuse solid object with a predominant surface in forensic medical treatment is well studied. At the same time, there are individual scientific works devoted to establishing the nature of injuries. The mechanism of their occurrence and, accordingly, the cause of death when a body falls from a height to water. Difficulties in diagnosing this type of injury are due to the fact that the fall from height to water is characterized by a large variety of

fall variants, mechanisms and the causes of numerous and polymorphous lesions. So far, many aspects of this problem remain undisclosed.

Materials and methods. The material for the research was 21 cases of a lethal fall from different heights to water in 2008-2015. At the same time archival materials of the Kharkov Regional Bureau of Forensic Medical Examination and regional forensic medical examination offices of other regions of Ukraine were used; Different literary sources. The following methods of research were used in the work: registration method; Mathematical-statistical method; Morphological method; Forensic medical method. The approximate rate of fall of the body at the surface of the water was calculated from the well-known formula, where h is the height of incidence, $g-9.81 \text{ m / sec}^2$. The height of the fall was taken from the materials of the case.

Results of research. The analysis of the conducted studies showed that 95.2% of the injuries prevailed among the victims, more than half of the injuries occurred at the age of 20-50 years (72%). Among the circumstances of the occurrence of trauma, an independent jump from the bridge took place in most of the observations (57.1% of observations), jump from the rock-5 observations (23.8% of cases), parachute drop in water-4 cases (19%).

Conclusions. 1. Trauma from falling from a height of water is infrequent and is quite difficult for forensic medical assessment. 2. When conducting forensic diagnostics and determining the cause of death, it is first of all necessary to focus on primary contact lesions, which are quite characteristic, allow to reveal the mechanism of falling and to conduct differential diagnostics with other types of trauma. 3. In the genesis of death, the mechanism of the formation of injuries in the fall, the leading role is played by the posture of the body at the moment of contact with water. 4. The appearance of craniocerebral trauma and pain shock at the time of the fall can lead to loss of consciousness and subsequent drowning. 5. An integrated approach, which includes a thorough examination of all case of the accident, a thorough description and evaluation of all injuries, will allow us to establish the cause of death and the mechanism of damage in sufficient detail.

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FEATURES OF THE DRUGS FOR TREATMENT OF AMYOTROPIC LATERAL SCLEROSIS

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Introduction. ALS is one of the most widespread neuromuscular diseases all over the world, which affects people of all races and ethnic groups. Materials and Methods. Mostly, people between their 40s and 60s suffer amyotrophic lateral sclerosis (ALS). But there is evidence when the disease strikes younger or older people. At the same time, men are more likely to develop ALS than women. “Familial ALS” (when the disease is inherited by people from their parents) is mentioned only in 5 – 10% of all the cases. Genetic factors cause it. Among them, approximately 1 of 10 cases is connected with the mutation in gene SOD1 as this enzyme is responsible for

neutralization of free radicals. Results. FDA has approved only one medication used to treat ALS. It is Riluzole (Rilutek). It is used to reduce the influence of glutamic acid on the work of motor neurons through intensification of other glutamic transporters. Moreover, it is considered that the medication fulfils another neuroprotective activity through blocking sodium and calcium channels, inhibition of protein kinase C and activation of NMDA (N-methyl, D-aspartate) of antagonism of receptors. Clinical trials in people with ALS showed that riluzole prolongs survival for a few months, and those who have bulbar form of the disease and take riluzole can survive even longer. Apart from this, it is necessary to start treating with Rilutek before applying mechanical ventilation. It should be emphasize that this medication does not revitalize the functions of motor neurons as the destruction of their activity has already happened. It is also important to mention that patients taking riluzole should have their liver skinned constantly as 10% of the sick who take this medication have their liver damaged or experience other side effects. The medication KHC- 760704 is being on clinical trials in people with ALS. It is enantiomer of pramipexole, which is used to treat Parkinson disease and restless leg syndrome. This medication has almost no affect on dopamine receptors and the period of its application is unlimited as pramixole has very strong dopamine energetic features.

Olexozime (TRO19622) is being tested at phase three of chemical trials in the framework of MitoTarget. The molecules of the medication, which have cholesterol-like structure, have strong neuroprotective features, thus they must be very effective in treatment as they are like a cocktail of three neurotrophic which stimulate the work of motor neurons naturally. Clinical trials, which take place nowadays, are oriented to the testing of effectiveness, safety, tolerance and its level in blood in patients with ALS. Yet, scientists must find out whether taking two capsules a day prolongs life and relieves the symptoms of patients with ALS. New discovery of RNA-interference in the long term can help to treat ALS. Corporation Cytrx sponsored the ALS research with RNA-interference. It is the technology of turning the genes off, which was directed to the mutated SOD1. Because of the disorder in the system of trophic support of neurons while suffering ALS the use of existing medications having neuroprotective, neurotrophic and neuroplastic activity is of great interest. Cerebrolysin is a neurotrophic medication, which is made up of approximately 25% low-molecular biologically active peptides and free amino acids, which are able to penetrate through hematoencephalic barrier and show neurotrophic activity as for the neurons of peripheral and central nervous system. The main effects of Cerebrolysin are as following: neurotrophic stimulation, neuroprotection, neuroimmunologic and metabolic regulation. It is well-known that such an influence of Cerebrolysin on the metabolism is specific only for the nervous system. Cerebrolysin can protect neurons from two common mechanisms of damage – excitotoxicity and oxidative stress. Their participation in pathogenesis of neurodegenerative diseases, as well as in ALS, is noticed by the majority of researches. It is assumed that such effects of Cerebrolysin realize due to its ability to stop the formation of free radicals and the presence of peptidergic agonists of presynaptic GABA-B-receptors in the medication. It is possible that selective activation of these receptors reduces the supply of calcium ions through the voltage-dependent canals to

the cells, resulting in the decrease of output of excitative amino acids from the presynaptic terminals and the suppression of synaptic transmission. Perhaps, peptidergic agonist of GABA-B-receptors works with another component which activates presynaptic adenosine A1-receptors. At the same time, the action of Cerebrolysin on the adenosine A1-receptors is most likely to be not direct but with the release of free endogenous agonist, adenosine, which is responsible for inhibition of synaptic transmission, and also due to the decrease of glutamate inhibition from the presynaptic terminals with the subsequent decrease of calcium ions supply to the neuron. Simultaneous activation of presynaptic adenosine and GABA-B-receptors with Cerebrolysin can be an effective way of glutamate inhibition control. Conclusion. Thus Riluzole can be named the first step in treating ALS as scientists all over the world hope that progress in medicine and development of new technologies will make it possible to develop new medications in the nearest future and the quantity of people suffering ALS will decrease fundamentally. Thereby, nowadays the only medication consisting of a balanced compound of fragments of neurotrophic factors is Cerebrolysin. Anyway, there no methods of ALS treatment with proved effectiveness, but there is a hope that soon new knowledge of aetiology, pathogenesis of the disease and progress in pharmaceutical field and the field of biotechnology will allow to develop and launch effective medications for treating amyotrophic lateral sclerosis in clinical practice.

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STUDYING VIOLATIONS OF THE RIGHTS OF PEOPLE WITH DISABILITIES

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Introduction. Recently World Health Organization (WHO) stated “A global human rights emergency in mental health”, this is very common in the society today. All over the world people with mental disabilities experience a wide range of human rights violations. In many countries people do not have access to basic mental health care and treatment they require. In others, the absence of community based mental health care means the only care available is in psychiatric institutions which are associated with gross human rights violations including inhuman and degrading treatment and living conditions. Hence research was done to compare persons with psychiatric illness and their caregivers’ perceptions regarding the human rights status of people with mental illness in the community according to National Institute of Mental Health and Neuroscience (NIMHANS) in India.

Materials and methods. The method involved a descriptive design was carried out among randomly selected asymptomatic psychiatric patients and their caregivers (N=200) at a tertiary care center. Data was collected through face-to-face interview, using a structured questionnaire. Researchers used a random number table to recruit potential subjects who received an initial assessment by a psychiatrist using the Clinical

Global Impression-Improvement (CGI-I) Scale. Data was analyzed and interpreted using descriptive and inferential statistics.

Results of research. According to the findings of NIMHANS, it revealed that the caregivers than psychiatric patients perceived negatively to the statements i.e., 'Receiving equal information and encouragement about career opportunities' ($\chi^2=10.779$, $P<0.05$), 'Opposing discriminatory actions, slurs' ($\chi^2=9.472$, $P<0.05$) 'Resolving the conflicts with people with mental illness through nonviolent ways' ($\chi^2=27.091$, $P<0.001$), 'Responding to the complaints of harassment or discrimination against the people with mental illness' ($\chi^2=18.697$, $P<0.001$), 'Encouraged to continue their education' ($\chi^2=13.029$, $P<0.05$) 'Exploitation by the community members' ($\chi^2=18.653$, $P<0.001$) and working under fair conditions ($\chi^2=13.470$, $P<0.01$).

Conclusions. Based on this we have our final conclusion. In summary the result of the research showed Human rights violations among the people with mental illness. This makes it urgent for the need to take necessary steps to protect, promote, and fulfill human rights of people with mental illness through providing care, educating the community, strengthening the legislations and creating mechanisms to assess and improve human rights conditions.

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DEPENDENCE OF ADAPTATION TO PHYSICAL, INTELLECTUAL AND EMOTIONAL STRESSES FROM THE STATE OF THE AUTONOMIC NERVOUS SYSTEM

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Introduction. Relevance. The state of health is influenced by a whole complex of biosocial factors. The state of functioning of visceral systems and physical development are the leading factors of stress resistance to exogenous conditions and adaptation to changes in the external environment. In connection with the specifics of the profession of the future doctor in the medical university, students receive a huge flow of information and large amounts of intellectual loads during the training, accompanied by marked emotional stress. Adaptation reactions occurring under the influence of training influences are realized by mobilizing functional reserves. Since the autonomic nervous system provides for the reorganization of the functioning of visceral systems and, therefore, the adaptation of students to various conditions of activity, studies of the tone state of the divisions of the autonomic nervous system and their ratio to the state of health are quite relevant.

Aim: to find out the relation between the tone state of the divisions of the autonomic nervous system and adaptation to physical, intellectual and emotional stresses, serving as indicators of the level of health in young men and women from 18 to 20 years. Materials and Methods. During the study, a group of students aged from 18 to 21 was selected in the number of 32 people. To determine the level of health, the Kverg test was conducted using a jumping-rope and a group of exercises: jumping with a rope,

the number of sit-ups in 30 seconds, running at a maximum speed, not less than 180 steps per minute for 30 seconds, running on the spot with a frequency of 150 steps per minute for 3 minutes. The following samples were chosen as the indexes of the tone of the autonomic nervous system: Teslenko (sitting-standing), Ashner-Danyini, Stange and Kardu. Pulse measurements were performed with a pulse oximeter, and blood pressure was measured with the help of Korotkov method. Results. As a result of the conducted studies, it has been determined that 56.3% of the subjects are normotonics, 7% are parasympathicotonics and 34.4% are sympathicotonics. According to the indicators of the state of health: 22% of subjects have a high level of health, 34.4% have a low level of health and 40.6% have a medium one.

According to the ratio of the health index and the autonomic index, 15.6% of normotonics and 25% of sympathicotonics possess a medium level of health, 25% of normotonics, 3% of parasympathicotonics and 9.4% of sympathicotonics have a low level, 15.6% of normotonics, 3% of parasympathicotonics and 3% sympathicotonics have a high level of health. Conclusion. Proceeding from the received data it is possible to notice a dependence, that normotonics' adaptation to psychoemotional and physical stresses was better, than sympathicotonics' and parasympathicotonics'.

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MORPHOLOGICAL CHANGES IN CEREBELLAR VERMIS IN CEREBRAL CIRCULATION DISORDERS

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Introduction. In Ukraine, annually diagnosed more than 130 thousand cases of acute disorders of cerebral circulation, mortality rate which is 30%. The frequency of ischemic infarcts of the cerebellum is 5 - 7% of all cases of cerebral infarction. The frequency of hemorrhage in the cerebellum is 4 to 10% of all cases of cerebral hemorrhage and mortality in them ranges from 20 to 75%. The purpose of the study – to determine the morphological features of the cerebellum in acute cerebral circulatory disorders.

Materials and methods. In the study used cadaveric material. Morphological investigation was conducted on 24 human cerebellum. The dead were divided into 3 groups: died of ischemic stroke – 7 people; died of hemorrhagic stroke – 7 people; control group – 10 persons who died of causes unrelated to CNS disorders. In the study used the following methods: analysis of medical documentation (were studied medical history, autopsy reports); macroscopic method; histological method – hematoxylin-eosin staining, Nissl staining method; morphometry; statistical analysis.

Results of research. During morphological studies also were found the following changes of morphometric parameters: the difference of mean values of morphometric parameters of the cerebellar cortex with cerebrovascular accident (CVA) and in the control group; length ganglion layer and average distance between the centers of

Purkinje cells are increased with CVA of both types; absolute number of Purkinje cells (CP) in folium, density of Purkinje cells (number of CP per 1 mm of ganglionic layer) and area of cross section of bodies of Purkinje cells are decreased with CVA of both types. Common changes in morphometric parameters: increasing of the size of cerebellar foliums as a result of cerebral edema; absolute and relative reduction of CP as a result of their death; reduce area of cross section of body of Purkinje cells in the cerebellar cortex as a result of degenerative changes of the CP. Differences of morphological changes in ischemic and hemorrhagic types of CVA: in ischemic type CVA pathological changes of Purkinje cells are more pronounced than in the hemorrhagic type; in ischemic type found expressed changes in all lobules. The most pronounced changes are observed in the phylogenetically younger parts of the cerebellum, the least damaged phylogenetically older parts; in hemorrhagic CVA type pathological changes more pronounced in the lobules of cerebellar vermis lying on its lower surface.

Conclusions. Detected morphological changes can be regarded as the basis of functional changes in the cerebellum, which are found with CVA extracerebellar localization (the phenomenon of cross-cerebellar diasthesis). These changes indicate a lesion of the brain areas remote from the primary lesion of CVA, which may influence the pathogenesis, disease course and thanatogenesis with CVA.

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PHARMACOLOGICAL STUDY OF NEPHROPROTECTIVE PROPERTIES OF MEDICAL AGENT WITH NONSPECIFIC TYPE OF ACTION

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Introduction. Acute kidney injury (AKI) - a life-threatening condition and widespread in developed countries, characterized by a sudden decline in glomerular filtration rate accompanied by accumulation of low molecular weight products of protein metabolism, electrolites and water. The absence of effective drugs in the treatment and prevention of the acute renal failure – is as a major medical and social problem. All this makes it necessary to find new treatment that can counteract the fundamental mechanisms of renal cell lesions. We are investigated the nephroprotective effect of sodium poly - (2,5-dihydroxiphenilen)-4-thiosulphate acid (PDT-Na) on creatinine, urea and protein rates in serum and urine during experimental ACI. Materials and Methods. The study was conducted on rats with an average weight of 160-200 grams. Experimental animals were divided into 4 groups: intact, control (ACI), research (ACI+PDT-Na), reference (ACI+Hofitol). ACI modeled using a single injection of glucerol 50% solution intramuscularly at a dose of 10 ml/kg. PDT-Na was administered to the experimental group during 14 days peros at a dose of 90 mg/kg, On the 15-th day of study was investigated the concentration of creatinine, proteins and urea in blood serum and urine. Results. The results of research in the control group (ACI) show an increased level of

creatinine in blood serum by 1,48 times and reducing its levels in the urine by 0,62 times, the concentration of urea in blood serum increased in 7 times in urine and decreased in 2,74 times, the protein levels decreased in 1.29 times in blood serum and in the urine increased in 2.12 times compared to intact group. Indicators of creatinine in the blood serum of experimental groups (ACI+PDT-Na) compared to the reference group (ACI+Hofitol) decreased in 1.1 times in urine, increased in 0.94 times, rates of urea in the blood decreased to 5.21 times in urine and increased in 1.78 times, the total protein concentration in the blood increased by 1.18 times in the urine and decreased in 1.36 times. When comparing the experimental group (ACI+PDT-Na) with an intact, was proven inability to normalize rates of creatinine, urea, total protein in the blood and urine to the values of healthy animals. Conclusion. Consequently, the experimental data show a positive effect of PDT-Na administration on concentrations of creatinine, urea and protein in serum and urine under ACI, allowing further research of nephroprotective properties of PDT-Na.

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THE EFFECTS OF ELECTROMAGNETIC RADIATION ON THE CENTRAL NERVOUS SYSTEM

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Introduction. Development of telecommunications and computer technologies which overflowed mankind about twenty years ago continues and now. Their today's ubiquitous use creates the resonance wave field which studying of influence on an organism in general and on its separate structures is an important question. The weighable contribution to environmental is made by the EMI level.

Materials and methods. For work the white laboratory rats absolutely suitable for carrying out an experiment who contained in vivarium conditions undertook. The research was conducted on 20 rats, an age of 20 days that corresponds to an age of the person from 6 to 7 years. The experimental group was under continuous radiation with a frequency of 1800-2100 MHz (it is equivalent to the modern devices).

Results of research. The rats who are exposed to radiation were characterized by a bradygenesis. Most of them became sluggish, poorly reacted to an irritant, at two sharp aggressions, exaltation was noted, at all wool loss was observed, and also deterioration in appetite was noted.

Conclusions. Analyzing the quantitative indices, observations, external changes, and also, results of a histologic research, it is possible to draw a conclusion that there is a correlative communication between clinical manifestations of morbid changes in motive functions of animals and its reactions and existence of morphological, pathological changes in a CNS in the form of manifestations as a productive meningocephalitis.

Ganizade N., Zelenska H.

CONDITION OF THE DISADAPTATION AT MEDICAL STUDENTS AND ITS PHYSIOLOGICAL FEATURES

Kharkiv National Medical University

(Department of Physiology)

Research advisor: PhD, ass.prof. Marakushin D.I.

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Introduction. Relevance of a research of violation of process of adaptation of students to educational activity is caused by the fact that years of study are considered especially intense, process of tutoring happens in the conditions of informational and emotional stress, the considerable mental and physical tension.

Materials and Methods. For the solution of a goal we with respect for the principles of bioethics and deontology conducted comprehensive examination of 603 students of the Kharkiv national medical university, both floors, at the age of 17-24 years.

Results. Adaptation of students to tutoring in a higher educational institution needs to be considered as dynamic, multilateral and complex process to which efficiency factors it is necessary to carry: stability of the functional condition of an organism of the student (lack of sharp violations of the majority of psychophysiological functions); lack of pronounced signs of exhaustion when performing educational activity; lack of emotional violations; educational success. As showed results of an assessment of adaptation of students to educational activity by means of a questionnaire «An assessment of a professional disadaptation» at 4,5% of the examined students the high level of a disadaptation demanding acceptance of urgent measures is revealed (psychological and medical); in 13,3% - the expressed disadaptation level that demands obligatory intervention of psychologists, carrying out the program for readaptation; in 36,2% - the moderate level of a disadaptation at which carrying out advisory work of experts is useful; at 20,2% - low level of a disadaptation; in 25,8% - lack of signs of a disadaptation.

Conclusion. Thus, results of our research allow to characterize the main manifestations of conditions of a disadaptation at students of medical school. Mental which are shown by deterioration in psychological health, alarming and depressive frustration, decrease of the activity, violation of the interpersonal relations, strengthening of an intra personal conflictness. Psychophysiological, in decrease in intellectual serviceability, memory violation, decrease in efficiency of an attention, increased fatigue, reduction in the rate of processing of information, the larger period of reaction and low indexes of coordination and the considerable deterioration in the described indexes under the influence of an exercise stress.

Grinchenko A., Kupchyk K.

FEATURES OF THE FLOW OF INTERNAL TIME AND DAILY FLUCTUATIONS OF STUDENT BIORHYTHMS IN THE PROCESS OF DEVELOPMENT OF ADAPTIVE RESPONSES TO THE INFORMATION STRESSOR

Kharkiv National Medical University

(Department of Physiology)

Research advisor: Prof. Chernobay L.V.
Kharkiv, Ukraine

Introduction. An additional factor of stress for people of mental work in the current conditions of information loads and accelerated life tempo is the factor of lack of time. Perception of time by a person occurs without a special analyzer based on the perception of the rhythm of the processes in the central nervous system, which optimizes the functioning of the body's functional systems in accordance with daily and seasonal changes in the environment. Therefore, further study of the features of the flow of internal time and daily fluctuations in biorhythms of people of mental labor is an actual psycho-physiological problem of adaptation.

Materials and methods. 75 medical students agreed to participate in the experiment. Three study groups were formed using Ostberg testing and the Hildenbrand index calculation. The I-th group (24%) were "larks" - the morning type - with the most favorable period of work in the morning hours; The II-th group (18.7%) were "owls" - the evening type - with the most favorable period of work in the evening hours; The third group (57.3%) consisted of "pigeons" or arrhythmics - an indifferent type - maintaining a sufficiently high level of activity during the whole working day. By the duration of the individual minute, the accuracy of measuring the specified time intervals before and after carrying out the intellectual load by the Krepelin method was estimated.

Results of research. As a result, the greatest percentage of the balanced time factor (the internal time coincided with the course of the physical time, the error did not exceed $\pm 1\%$) was observed in the arrhythmic group - 88.4% of the students, who also had the most effective mental capacity with the lowest psycho-emotional stress. The "owls" had an acceleration of the time factor (78.6%). Maximum performance they showed in the second half of the day, but the number of errors remained significantly 2.5 times more than in "pigeons." The "lark" percentage of slowing of the time factor manifested itself in virtually all students (94.4%). The effectiveness of mental performance was observed from 9:00 to 11:00 hours, but psycho-emotional tension remained at a fairly high level.

Conclusions. Subjective acceleration of time perception testifies to information overload and tension of adaptation mechanisms. On the basis of the study, recommendations were made to help students optimize during the day the distribution of employment by mental and physical labor, depending on the individual profile of biorhythms and the speed of the flow of internal time.

Gudenko A., Gosudarski I., Kovaliov M.

BLOOD PRESSURE SCREENING

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Introduction. According to the World Health Organization cardiovascular diseases are the most popular diseases worldwide. They commonly cause death and, even more

often, they lead to disability limits. The mortality rate is decreasing in the developing countries but it is sufficiently increasing in the others. Well known fact that the key factors of mortality rate are behavioral and metabolic ones which are common worldwide and they cause medical and social casualties so as economical losses. Despite that, health care system in the majority of countries does not have an appropriate prevention from diseases and it is focused on the hospital care (therapy) instead. This fact shows the reason of the lack of disease prevention in less developed countries and that population with insufficient funds are always suffering from risk factors. As a result, these countries have a significant amount of people with a high rate of cardiovascular diseases who remains undetected or do not have access to primary medical care. Objective: to study the features of the flow of internal time and daily fluctuations of students biorhythms in the process of adaptation to the information stressor.

Materials and Methods. For the study there were selected by random 155 second-year students KhNMU aged 18-24 years, including 70 domestic and 85 foreign students (men – 95, women – 60). Taken into account height, weight, bad habits, exercise, and chronic disease. The study was conducted on blood pressure by M. Korotkov at rest were measured: systolic (APs, the rate of 139-100 mmHg.) and diastolic blood pressure (APd, the rate of 89-60 mmHg.), pulse pressure (APp) and average pressure (APa, ~ 120/80 mmHg.) calculated by the standard formula. **Results.** As a result of the experiment, 20% of men and 6,6% of women who had a blood pressure level higher than normal were found, which is 14,8% of the total number of patients studied. With normal arterial pressure there were 80 per cent of men and 93,4 per cent of women. Not a single student was diagnosed with hypotension. In the students studied, there were chronic diseases such as pancreatitis, rhinitis, and sinusitis. The average index of pulse blood pressure was 45,7 mmHg; for men – 47,2 mmHg; in women – 43.4 mmHg. The overall average blood pressure was 96 mmHg (for men – 99,1 mmHg, women – 90,3 mmHg). **Conclusion.** Thus, as a result of the screening experiment, there were found 26,6% of students with symptoms of hypertension. Further prevention of hypertension requires regular monitoring of blood pressure risk.

Hloba N., Zhuravliova P.V.

PECULIARITIES OF TOLERANCE TO PHYSICAL LOADS IN PEOPLE WITH DIFFERENT TYPES OF PERSONALITY ACCENTUATIONS

Kharkiv National Medical University

(Department of Physiology)

Research advisor: As.prof. Hloba N.

Kharkiv, Ukraine

Introduction. Accentuation of personality is the most expressed trait of character that lies on the border line of norm. The higher is the expression of accentuations and the more of them are expressed in a same personality, the higher is the risk of personality disorders development. Unstable psychic state, in its turn, may influence the physical state and functional reserves of an organism. The aim of research was to study the peculiarities of adaptation to physical load in people with different types of personality

accentuations.

Materials and Methods. The research was carried out in 30 students of 2nd course of KNMU aged 18-21. Accentuations were determined using the multilevel personal questionnaire “Adaptability” by Maklakov and Chermianin. For physical load the bicycle ergometer with standard resistance and velocity was chosen. Heart rate, arterial pressure (systolic, diastolic, pulse and mean) were measured by method of Korotkov and calculated using standard formulas.

Results. All examined people were divided into 5 groups – without expressed accentuations (control group, CG), with wide specter of personal traits (1st group), with averagely expressed results (2nd group), with single expressed results (3rd group), and with high expression of accentuations (4th group). It was determined that in people of 1st and 2nd groups there are moderate deviations of hemodynamic parameters from results of CG. Results of 3rd group coincide with those of CG. In 4th group values of mean arterial pressure (MAP) both before and after physical load exceed those parameters of CG on 3-6 and 4-11 mm Hg correspondingly. In restoration period there were no significant differences. In group with high expression of accentuation in hypomania scale MAP in rest and after physical load were higher than in CG on 2-7 mm Hg, and their total restoration occurred faster than in CG. Such result may indicate relatively higher adaptability of people with that accentuation.

Conclusion. Tolerance to physical loads may vary depending on type of personality accentuation and its expression. The relation between quantity of expressed traits and tolerance to physical load were determined – the number and level of expression of accentuations of personality influences the organism’s ability to adapt to physical loads, depending on type of accentuation.

Hloba N., Sarancha T., Palchinsky V.

**FEATURES OF FUNCTIONAL RESERVES IN YOUNG PEOPLE WITH
VARIOUS LEVEL OF PREDISPOSITION TO PSYCHOSOMATIC
DISORDERS**

Kharkiv National Medical University
(Department of Physiology)

Research advisor: Prof. Zhubrikova L.
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Introduction. Psychosomatic diseases are based on reaction of human body to psychological and emotional stress accompanied by development of functional changes and pathological disorders. Their development is determined both by expression of stress factors and by individual characteristics of a person. Such conditions are included in the ICD-10 list as "Somatoform disorders" (F45) that proves the necessity of their study. The aim of research was to study the peculiarities of functional reserves in young people based on their tendency to psychosomatic disorders.

Materials and methods. 25 students from KhNMU aged from 17 to 21 years were involved in the research. The tendency to psychosomatic disorders was evaluated by Toronto alexithymic scale (TAS-20), level of personal anxiety (PA) was determined

by Spielberg's anxiety scale, status of functional reserves was evaluated using the Martinett's test.

Results of research. According to TAS-20 results, 12% of examined with formed index of alexithymia (1st group) formed a high-risk group for susceptibility to psychosomatic disorders; 40% of patients were in the group of medium risk (2nd group) and 48% of them had a "non-alexistimic" type of personality (3rd group), which corresponds to low risk. Examination of level of PA in those groups revealed that in 3rd group 66.7% of patients had a moderate level of PA and 33.3% had a high level of PA; in 2nd and 1st groups all individuals had high level of it. The results of the Martinett's test showed that all persons from 3rd group had normotensive response to exercise stress, which indicates the optimal way of autonomic regulation of functions during exercise. In 2nd group, 80% had normotensive and 20% had hypertensive reactions; in 1st group 50% of patients had normotensive and 50% hypertensive response to exercise stress, showing less economical and ineffective type of regulation. The recovery period was characterized by normotensive reaction in 100% of persons from 3rd group. In the 2nd group about 40% had normotensive and 60% had dysregulative reaction; in 1st group dysregulative reaction and deficiency of hemodynamic parameters restoration was detected in all individuals.

Conclusions. The results of the research showed that approximately 52% of the examined persons have risk of developing somatoform disorders. Predisposition to these disorders depends on the level of PA (high PA was found in 77% of risk group). The quality of autonomic supply gets worse depending on expression of tendency to psychosomatic disorders that may lead to the appearance of various somatic symptoms in the future and worsening of quality of life, that confirms the necessity of further study of this problem.

Ivanteieva Yu., Kurchanova Yu., Kovaltsova M., Sirenko V.

**THE DISTURBANCE OF STRUCTURE AND FUNCTION OF THE
ENDOCRINE PANCREAS OF RATS RESULTING FROM OVEREATING
DURING PREGNANCY**

Kharkiv National Medical University

(Department of Pathological Physiology named by D.E. Alpern)

Research advisor: Prof. Nikolaeva O.

Kharkiv, Ukraine

Introduction. The important problem of a modern pankreatology is the functional violations of the pancreas caused by influence of exogenous pathogenic factors. That is why we decided to study the morphofunctional features of a pancreas at rats at the action of an alimentary factor.

Materials and Methods. The condition of endocrine part of a pancreas of the pregnant rats who received unbalanced food with the raised content of nutrients (1 group) and being on the balanced food (2 group) is studied by means of morphological, morphometric and biochemical methods.

Results. The morphofunctional changes of pancreas take place at 100 % of rats of the 1st group: reduction of the relative area of a parenchyma on $8,7 \% \pm 0,8$, $p < 0,001$ and increase in the area of a stroma of pancreas on $23,3 \% \pm 2,1$, $p < 0,001$ in comparison

with animals of the 2nd group. An inflammatory infiltration (at 40 %), reduction of the average area of islands of Langergans (by 4 times, $p < 0,001$), reduction of quantity α - and β -cells on average on $28 \% \pm 0,3$, $p < 0,001$ and $27,3 \% \pm 0,2$, $p < 0,001$ respectively, degenerate changes of cytoplasm and kernels of endokrinocytes. Thus the insulin level reduced on $27 \% \pm 2,1$ ($p < 0,001$). The increase in level of a kortikosteron by 36,4 % ($p < 0,001$), not esterified fatty acids for 22,3 % ($p < 0,001$) and the ketone bodies for 81,5 % ($p < 0,001$) is revealed. It can testify to a condition of an insulinresistance. Conclusion. At all pregnant rats who were on a hypercalorie diet with the increased consumption of carbohydrates and fats morphofunctional changes of a pancreas take place. The functional overload of endokrinocytes leads to increase of insulin level in blood and to possible subsequent exhaustion of a pancreas at long hyperfunction of specialized cells. Increase of insulin level includes activity of development the contrinsulin hormones, which negative effect leads to damage of cellular membranes and activation of catabolic processes.

Ivchenko N.

**ANALYSIS OF CASES OF ALCOHOL POISONING AND ITS
SURROGATES ACCORDING TO THE DEPARTMENT OF FORENSIC
MEDICAL EXAMINATION OF CORPSES OF THE KHARKIV REGIONAL
BUREAU OF FORENSIC MEDICAL EXAMINATION**

Kharkiv National Medical University
(Department of Forensic Medicine, Medical Law)
Research advisor: Prof. Olhovsky V.
Kharkiv, Ukraine

Introduction. Currently, the problem of poisoning, particularly alcohol and its surrogates is quite relevant. This situation stems from the fact that alcoholic beverages are available without restrictions and at any place. Alcohol is the cause of many diseases, rash, reduced quality of life. Many scientists say: "Alcohol is like drugs, it is harmful to human health in all forms and at any dose, because it acts like morphine because creates the illusion of goodness and happiness, bringing the irreparable harm like any other poison."

Materials and methods. The material was archival data 450 cases of the deaths residents of Kharkov from alcohol poisoning and its surrogates carried out in KRBFME in 2016. Account gender and age, which averaged from 50 to 60 years, regardless of gender. There was taken following indicators: death from alcohol intoxication, and alcohol substitutes, including methyl alcohol, colognes, lotions, tinctures of hawthorn berries, etc.

Results of research. In cases of poisoning by alcohol, mortality of the male population is about 4-5 times higher than women's. Mortality from alcohol poisoning is most common in the range of 40 to 60 years, because of its use in large doses, as well as the fact that the population of this age prefers expensive alcoholic drinks cheaper so-called surrogates of alcohol, such as tincture of hawthorn, motherwort, various colognes. Older persons die from diseases of the cardiovascular system on a background of alcoholic intoxication. In case of poisoning with alcohol substitutes, mortality of the male population is almost 3 times higher than women's. In 2016 there have been cases

of poisoning methyl alcohol. In the fall of 2016 there have been 85 cases of poisoning with adulterated alcohol in Ukraine, of which 42 cases ended in death. According to the forensic medical examination, 23 deaths in the city of Kharkiv was discovered methyl alcohol. According to the investigation, produced in Kharkov surrogate alcohol was also distributed in five regions of Ukraine.

Conclusions. Mortality from alcohol among the residents of Kharkiv in 2016 was a record for recent years, mainly due to his surrogates. The average age of death ranged from 50 to 60 years regardless of the gender. The mortality of the male population was 4-5 times greater than women's.

Kalganova M., Zelenska H.

AGE FEATURES OF THE RANGE OF POWER OF ALPHA RANGE OF A EEG DURING THE DIFFICULT CEREBRATION

Kharkiv National Medical University

(Department of Physiology)

Research advisor: Prof. Chernobay L.

Kharkiv, Ukraine

Introduction. An electroencephalographic research – one of the most informative methods of studying of the systemic organization of integrative processes of a brain of the person at various functional states, cerebration, attentions.

Materials and Methods. System of a computer electroencephalography, computational method of ranges of power, abstract and logical tests, visual and figurative tests Ravenna, method of variation statistics of a t-student criterion.

Results. In a condition of the functional rest with open eyes the generalized desynchronization of alpha range and its subranges in all age groups is observed. Whereas at youthful age the depression alfa-2 and alfa-3 subranges in all sites of bark is fixed. During the abstract and logical test in all age groups there is a generalized decrease in the joint venture in the alpha subranges. At teenage age the depression alfa-3 subrange was observed in the left-hand hemisphere. At youthful age - a legible generalized depression of the joint venture in alfa-3 subrange. In a run time visual and figurative tasks in all age groups decrease in the joint venture in alfa-1, alfa-2, alfa-3 subranges are noted. At younger age shifts of the joint venture high-pitched alfa-3 subrange are observed, however these shifts are insignificant. Generally, decrease in the joint venture happen generalized in alfa-1 and alfa-2 subranges. At teenage age shifts of the joint venture in alfa-3 subrange to a large extent, then at younger age are noted.

Conclusion. 1) In a condition of the functional rest at children of a younger school age ranges of power alfa-1 and alfa-2 subranges, at youthful age – an alpha-3 are more expressed;

2) the flattening of eyes and the difficult cerebration with a verbal and figurative component in all age groups cause a depression of all subranges of alpha waves of an EEG. During the abstract and logical test in all age groups there is a generalized decrease in the joint venture in the alpha subranges. The most jet is subrange alfa-3. At younger age more fissile is the right hemisphere; at teenage age – the left-hand hemisphere; at youthful age – both hemispheres complement each other;

3) at visual and figurative thinking the joint venture alfa-3 subrange, in the other sites of the right hemisphere at teenage and youthful age decreases.

Kalyan V., Sharma A.

BLOOD GROUPS OF ABO AND RHESUS FACTOR SYSTEMS IN INDIAN STUDENTS

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Introduction. India is the second most populated country in the world with the world's third largest higher education system in terms of enrollment of students (26 mln) (Khare, 2014). It is also leading exporter of students to other countries including Ukraine. The number of Indian students studying in Ukraine doubled during academic year 2015/16 and continues to rise (MES of Ukraine, 2016). That is why study of blood groups in Indian students may be important for medical (blood transfusion) and scientific (population genetics) purposes.

The goal of the study was to assess blood group frequencies of ABO and rhesus factor (Rh) systems in Indian students.

Materials and Methods. The evaluation of blood group frequency has been done by an anonymous survey of first-year international students, which study in Kharkiv National Medical University. The study has been conducted on 168 students. All respondents are India citizens aged from 18 to 20 years. A questionnaire contained questions about age, sex, region of origin and blood groups of a respondent.

Results. The gender ratio of the respondents was 105 males (62.50%) to 63 females (37,50%). Geographically, 90 students (53.57%) were from Northern India, 63 students (37,50%) from Southern India, 6 (3.57%) from Western as well as from Eastern India, and 3 (1.79%) from Central India. The last three groups have been excluded from further analysis due to their small number.

Among representatives of Northern India, the most common blood group is group B (40.00%), followed by group O (28.89%). The frequency of group A is 18.89% and 12.22% of the individuals have group AB. A number of Rh-positive individuals (87.78%) is prevalent over Rh-negative (12.22%).

In the group of Southern India, blood groups B and O have almost same frequencies (31.74% and 30.15%, respectively), group A is equal to 28.58%, and group AB – the least frequency – 9.53%. Also 88.89% of the respondents are Rh-positive and 11.11%

– Rh-negative.

The ratio of Rh-positive and Rh-negative groups is almost equal for North and South. As for ABO system, the difference was found in frequencies of groups B and A. In Northern India, more people have group B, and the frequency of group A is almost 1.5 times less that on South. The predominance of group B in Northern region of India has been reported earlier (Nanu and Thapliyal, 1997; Chandra and Gupta, 2012). The higher percentage of Rh-negativity found in our study (12.22% vs 4.29%) could be explained by the small sample.

Conclusion. Our research can not be considered as completed and needs to be

continued. It may be useful in planning for blood transfusion if needed, especially related future growth of number of Indian students in Ukraine.

Kharchenko E., Skliaruk D., Shtereb A.

INDIVIDUAL VARIABILITY OF THYROID GLAND FOLLICLES DEPENDING ON GENDER AND AGE

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Introduction. Core values of democratic society are the high level of life activities and the human health. Over the years, issues of anatomical, morphological and physiological interrelations between the structure and the function of the endocrine system remain open and are solved as the technological development progresses further.

Materials and methods. In this study, the research was carried out on the autopsy material, which had been taken from 13 people of different age groups and gender. The material was received from patients who died from causes not related to endocrine disorders. In this work conventional morphological studies were used: sectional material was exposed to fixation by 10% formalin solution, with the further histological follow-through of glandular material with the subsequent hematoxylin-eosin staining. Van Gieson staining was also used to determine connective tissue structures.

Results of research. Follicles are specialized structures and they are the basis of thyroid gland structure. They are structural objects of round to ellipsoid shape and they are tightly adjacent to each other. Gel-like substance or colloid containing hormones is located inside them. Studies have shown that follicles are in connection with each other and are combined into groups. The aggregations of follicles constitute special communities which consist of blood vessels, network of nerve fibres and follicular epithelium. This community is an executive unit. Hormones production, their storage and excretion take place inside of it. The studies have shown that thyroid follicles generally require a large amount of nutrients, oxygen, that are taken from blood via blood flow that delivers the iodine highly required by this organ. The study found out that there is an age-relating variability in follicular diameter both in women and men. With age the diameter of the follicle is decreased and epithelial cells become more flatten in the follicles, which indicates the increasing hypofunction of the organ with age. There is a congestion of colloidal content in the enlarged follicles.

Conclusions. With age, connective tissue layers increase in amount and number of interfollicular cells grows up. This may be related to follicle's destruction. Sclerosis lesions are observed in some preparations.

Knyhin M., Artsylenko K.

MOMENTS AFFECTING THE PSYCHOLOGY OF SCHOOL GRADUATES

Kharkiv National Medical University
(Department of Hygiene and Ecology №1)

Research advisor: assistant Katelevskaya Natalia
 Kharkiv, Ukraine

Introduction. The analysis of literature showed that the problem of stressfactors for the students of senior classes is extremely many-sided and appears very actual presently. The mechanism of human reaction to a stress impulse is very complicated, it includes various types of adaptation reactions. However, with prolonged and constant exposure to stressful factors, the body's reserves are depleted, which ultimately leads to the development of many chronic diseases.

Materials and Methods. Knowing the nature of stress, it is important to apply this knowledge to assess the state of a schoolboy - a teenager, because during this period in a relatively short time there are various morphological and functional changes in organs and systems.

In fact, the life of a high school student is very rich in various kinds of experiences. They are faced with the task not only to finish the school well and receive a worthy certificate, but also to enter a prestigious university in the specialty that they have chosen. As a rule, the last year in school becomes the most important time of their stay here, they work, practically, every day in order to achieve their goal. Their nervous system is constantly tense, because they are beginning to be pressured by teachers and parents, because each school wants to boast a rating of external independent evaluation, and parents want their child to enter a good university Results. From the beginning, children are frightened by exams that await them after graduation, which according to teachers are more and more complicated every year. This is what negatively affects their nervous system and leads to frequent nervous breakdowns of adolescents. They start to think about it seriously, and under the influence of these factors, psychological traumas develop in children who do not stand such pressure from others. According research, 22 out of 30 teenagers suffer from various diseases, such as duodenitis, chronic lack of sleep, neurological disorders, cardiopsychoneurosis, diabetes, exacerbation of all existing chronic pathologies.

Conclusion. From the above, we can conclude that high school students are too prone to emotional breakdown, due to final exams and obtaining a normal certificate, which can lead to serious consequences associated with the psyche. In order to avoid this, we should hold talks, both for parents and teachers with children, to increase the psychological preparation of high school students, that is, to let them know that everything is possible with conscientious preparation and that everyone passes through it.

Kolotilov A., Tyrkin D., Onaschko J.

**GLUCOCORTICOIDS: CONSERVATIVE TREATMENT OF STENOSING
 TENDOVAGINITIS AND STENOSING LIGAMENTITIS**

Kharkiv National Medical University
 (Department of Pharmacology and Medical prescription)

Research advisor: prof. Iermolenko T.I.
 Ukraine, Kharkiv

Introduction. Stenosing tendovaginitis – inflammatory disease of one or multiple

tendons of the hand. In literature it is also widely known as carpal tunnel syndrome, stenosing ligamentitis, de Quervain's "texting thumb" syndrome. The disease was first described at the very beginning of the XX century by a surgeon named Franz de Quervain, but is still relevant to this day. It is a quite common illness, especially among people whose job requires working with their hands in a constant and monotone way. Tendovaginites can also be secondary, following different diseases of joints, infectious or allergic processes. Since the thumb carries out a dozen of drastically different tasks (such as small operations, gripping, fixation of objects), its tendons and ligaments suffer from regular stress. As a result, these structures take microdamage and develop inflammation and edema. And the carpal tunnel, which was already too narrow, becomes even tighter for the thickened ligaments. This leads to the compression of the neurovascular bundle and manual dysfunction. Due to ineffective treatment, neglected state of the inflammation being able to provoke necrosis of the tendon, dissemination of the purulent inflammation through the whole organism, while surgical methods are not always rational because of different reasons, we have considered methods of conservative treatment, specifically the use of glucocorticoids (GC) in therapy of tendovaginites.

Materials and Methods. American College of Rheumatology (ACR) suggests using glucocorticoids as main medicaments in treatment of rheumatic diseases of the periarticular soft tissues on the basis of clinical studies and monitoring of the suggested methods' effectiveness. Also according to British Medical Journal's articles GC are available in treatment of described pathologies. We will consider the use of drugs from the GC group in therapy of stenosing tendovaginitis and stenosing ligamentitis using Betamethasone as an example.

Results. GC are commonly used in the modern medical practice. Nowadays they may become the medicaments of choice for the therapy of rheumatic diseases of soft periarticular tissues as well, allowing to treat the patients of many cases successfully without the use of surgical methods.

Conclusion. GC are commonly used in the modern medical practice. Nowadays they may become the medicaments of choice for the therapy of rheumatic diseases of soft periarticular tissues as well, allowing to treat the patients of many cases successfully without the use of surgical methods.

Komarov D., Yakovleva L., Onashko J.

ANALYSIS OF THE EFFECTIVENESS OF ANGIOTENSIN CONVERTING ENZYME INHIBITORS ANTIHYPERTENSIVE EFFICIENCY IN PATIENTS WITH CORONARY ARTERY DISEASE

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Introduction. A number of epidemiological and randomized clinical researches have shown that arterial hypertension (AH) is one of the leading risk factor in the development of a variety of cardiovascular diseases, in particular— coronary artery disease (CAD). Researches show that only in 30-50% of patients receiving

antihypertensive therapy it is possible to reach the target level office blood pressure. It is shown that the regulation of blood pressure (BP) is a genetically determined parameter (by 30-60%) and is reliably associated with several chromosome loci. This means, that the greatest interest is caused by the effectiveness of inhibitors of angiotensin-converting enzyme (ACE inhibitors). The first data were based on the study of the hypotensive effect of intravenous injection of ethanapril depending on the genotype of the polymorphic marker of the inertial deletion (I / D) polymorphism of the ACE gene in healthy volunteers. It turned out that in individuals with genotype II, the reaction to a drug was the most significant and prolonged.

But in the largest pharmacogenetic research made by GenHAT, there was no correlation between the I/D polymorphism of the ACE gene and the hypotensive response to the ACE inhibitor.

In the study, we tested the sensitivity to the hypotensive effect of ACE inhibitors in patients with CAD and AH, depending on the polymorphism of the ACE genes. **Materials and Methods.** The study involved 78 patients with CAD and AH. The target level (140/90 mm Hg. or less) office blood pressure (BP) was achieved with the appointment of an ACE inhibitor at 50% or less of the maximum, recommended for the preparation for 32 (41.0%) patients (group I), while 46 (59.0%) - at a 50% to 100% of the maximum dose (II group). The target blood pressure in 20 (43.5%) patients of group II was achieved with supplemental calcium channel blockers and / or thiazide diuretics.

Results. The dependence of ACE inhibitors antihypertensive efficacy from ACE gene I / D polymorphism was revealed in patients with CAD. It was proved that reduced hypotensive effect of ACE inhibitors in patients with CAD is associated with the presence of ACE gene I / D polymorphism DD genotype. **Conclusion.** The results substantiate the feasibility of determining these polymorphic markers for predicting the effectiveness of ACE inhibitors and antihypertensive therapy optimization.

Korolkova A., Rakhman P.

ORTHOTICS IN THE COMPLEX REHABILITATION OF CHILDREN'S PATHOLOGY OF THE MUSCULOSKELETAL SYSTEM

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Introduction. To introduce the possibilities of using modern orthotics in the complex rehabilitation of children's pathology of the musculoskeletal system.

Materials and methods. Orthotics of the different parts of the musculoskeletal system was introduced in more than 130 children. Multiple mechanisms of orthotics were used: fixed, unloading (weight bearing), corrective, combined.

Results of research. We used two areas in the orthotics. 1) Customized orthotics. 2) Orthoses using the developed sizes, which allows selection of the required orthotics

in almost any clinical situation in the shortest possible time and with minimum costs. Benefits of orthotics: individual and fast production; the possibility of repeated remodeling orthoses in the treatment process; functionality and comfort of the product, light weight; improvement of hygienic care and the possibility of physical functional treatment; cost efficiency; durability; aesthetics; ease and convenience for patients to use. Also widely use polymeric bandages such as Scotch Cast and Soft Cast - they are well adapted for any anatomical segment of the body, are light weight, high strength and durability, radiolucent.

Conclusion. Orthotics in children with diseases and injuries of the musculoskeletal system provides: the stability of the damaged segment; proper conditions for recovery processes; the balance of the segment; is the prevention of deformations and displacements, and if necessary can conduct a gradual, phased elimination of deformation while maintaining satisfactory joint function. This method significantly improves the results of treatment of this challenging group of patients, and gives reason to recommend them for wide clinical use.

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EXPEDIENCY OF USING OF INTERFERON MEDICATIONS IN TREATMENT OF ARVI IN CHILDREN

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Introduction. Interferon is a species-specific low molecular weight glycoprotein. It interacts with special binding sites on the cell surface, which leads to the activation of protein kinases and the formation of a low molecular weight inhibitor of protein synthesis that stimulates endonuclease, destroying RNA viruses and host cells. Today in our country it is often used in the form of drugs in the treatment of influenza and ARVI. Acute respiratory viral infections (ARVI) in children are a socially significant problem. Nowadays a priority area of health care is considered as reducing the morbidity and increasing the effectiveness of treatment for the population, especially for children. The high incidence of acute respiratory viral infection leads to unreasonable use of drugs for antiviral protection. In this regard, the Ministry of Healthcare of Ukraine does not recommend to use particularly interferon medications, which belong to the group of antiviral and immunomodulating drugs, since their effectiveness is questionable. To determine the expediency of using of interferon medications in treatment of children with ARVI.

Materials and methods. When writing the work, the empirical method, the method of analyzing scientific literature and the method of interviews were applied. The materials were preclinical trials of the effectiveness of interferon use, as well as the results of a survey of 62 parents whom children were on hospital treatment in a pediatric department with a diagnosis of ARVI.

Results of research. When analyzing the results of a study carried out at the Research Institute of Pharmacology and Regenerative Medicine. Goldberg (Tomsk), it was established that the course of interferon use for 3 days did not have a significant effect

on the humoral immune response in experimental animals. In mice receiving interferon medications for 5 days, there was an increase in the percentage and absolute number of antibody producers and their functional activity, judging by the titers of immunoglobulins M, G and the total amount of hemagglutinins. According to our parent's survey, interferon medications were used to treat 29% of patients. Half of them used drugs for 3 days, and the rest - for 5 or more days. It is necessary to take into account the fact that 15% of patients were engaged in self-medication.

Conclusions. Based on the results of the study, the use of these drugs for less than 3 days is inappropriate because of their lack of efficacy and the potential harm of such self-treatment.

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THE RESEARCH OF THE EFFICIENCY OF THE BIMATOPROST

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Introduction. In the 20 – th years of the last century in the USA was appeared a new drag for the treatment of glaucoma. The active ingredient of this drag was bimatoprost, which structure has related to prostaglandins. Very soon after the beginning of a wide application patients, who was suffered from glaucoma, became observed interesting effect – the eyelashes of patients became longer and thicker. This fact could not be interesting for the cosmetology market of the USA. After that, under the control of the FDA in the USA the Allegran company conducted a double-blind, placebo-controlled research, whose purpose was to determine the effect of bimatoprost on eyelash growth. According to this research, after 16 weeks of the everyday using of this drug 98 % women said, that their lashes became darker, thicker and longer. When the bimatoprost effect was proven, the Allegran company patented bimatoprost on the market of the USA. Due to the patent for the production, the company could hold any price for the drug during 15 years. So, bimatoprost became a “gold” drug, which has costed 2000-2500 dollars per gram of pure substance.

Materials and methods. Today, we can see a lot of drugs with bimatoprost on our Ukrainian cosmetology market. Therefore, the purpose of our experiment is to investigate the effectiveness of this drug and the presence of side effects.

Results of research. Within two months, a group of girls (25 people) aged 18-23 years have used bimatoprost once a day, putting on the skin of the upper eyelid (only at the base of the eyelashes, not getting on the mucous membrane of the eye). This target group did not have ophthalmic diseases. Side effects have 3 people – 12% - redness and itching of the eyes; 2 people-8% - dry eye effect; 1 person-4% - darkening of the upper eyelid skin. The intensive growth of the lashes was observed for each woman.

Conclusions. Bimatoprost is actually effective drug, but it has side effects in 24 per cent of cases.

Malvika C.

MORPHOLOGICAL CHANGES IN THE CAPILLARIES OF THE BRAIN OF NEWBORNS, WHOSE PARENTS ARE CHAIN-SMOKERS

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Introduction. SMOKING! A cool trend, among our present kin, but its effects on the gestating women is indeed a situation to scrutinize into. A microscopic study helps prove how hazardous smoking can be, not only in adult humans but also intra-uterinally in fetus.

Materials and Methods. Investigation done with the help of a microscope and slides IHCh reaction for 8 factor (is localized in endotheliocytes). The experiment was started 1 month prior pairing. 4 of pairs of rats Wistar were taken into consideration -1st: controlled (nonsmoking); 2nd: mother- smoker, father- nonsmoker; 3rd: father - smoker, mother - nonsmoker; 4th both were smokers. The smokers were kept in special box for passive smoking for 15 mins every day, with the usage of ½ a cigarette. Brain of newborn rats was taken in study. Morphometry was made: calculation of capillaries amount in the cortex of parietal lobe.

Results of Research. The capillaries in the brain of main groups animals are dilated due to desquamation of endothelium whereas in controlled animals such phenomenon is absent. The result of the number of capillaries on the cross section of 0.02mm² showed the average of capillaries amount as follows: controlled - 17, smoking mother- 50, smoking father- 44, both smokers- 31. As an explanation of the received result it is possible to assume as a direct trans-placental action of products of burning of tobacco, and epigenetic influences. It is obvious that in utero, in the main groups endothelium of capillaries perishes more intensively than in control animals. Therefore, possibly they have a higher level of VEGF. Therefore, as a result - a more developed capillary network. It is the reaction of adaptation to existence in a smoking environment. Simultaneously in the main groups endothelium more easily destructed.

The smoker's babies had smaller brains with less grey and white matter and were at greater risk of stress and anxiety & could contribute to SIDS. Nicotine may be poisonous to area of the brain directly involved with heart and breathing functions and arousal from sleep.

Conclusion. Smoking of parents leads to damage to the endothelium of blood capillaries in offspring. At the beginning of life this is compensated by hyperproliferation of the endothelium. Possibilities of proliferation of any cells are limited. We can expect an earlier development of vascular diseases in descendants of smokers' parents. Smoking leaves an unseen scar, it fills us with toxins and tar. Maybe, it's time we tar our roads and not our organs and put it out, before it puts us out! I am sure we can be brighter, to put down that lighter and move towards a healthier and happier cosmos.

Markevych Iu.

MODERN METHODS OF INDUCTION OF BONE TISSUE REGENERATION

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Introduction. Regeneration of bone tissue is a very important and long process in our body. So, up-to-date technologies providing faster regeneration are actual. In this work we consider the latest and the most promising technologies, analyze their advantages and disadvantages.

Materials and methods. In our work, studies of leading medical laboratories devoted to this subject were analyzed.

Results of research. The three-dimensional implant technique combined with bone microtissues is based on the application of superposition of thin nanofibrous layers. This three-dimensional formation provides the necessary porous structure due to nanofibrous layers that mimic the topography of the extracellular matrix, promoting cell adhesion, cell growth and vascularization of microtissues formed from primary osteoblasts. Recently, porous multilayer carbon nanotube technology, nanocomposite with collagen and biopolymers is actively developing. This biomaterial has good biocompatibility and, due to the porous structure, accelerates the cell differentiation. However, this method is not perfect and has some side effects.

Conclusions. Thus, the technologies presented above are planned to be used to stimulate bone regeneration. However, they are not ideal, so researches continue in all relevant areas.

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FEATURES OF METEOPATHIC REACTIONS IN FOREIGN STUDENTS

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Introduction. Among the components of organism's general adaptation the ones that are the most stable are physiological mechanisms providing adaptation to weather conditions and climate. In case if an organism due to disturbances or exertion of adaptive capabilities becomes unable to react to weather changes in usual, normal way, changes of psychic and physical state of the organism in form of various meteopathic reactions arise. The prevalence of meteopathy in general population is 30-60%, and that value greatly depends on availability of stress factors and their intensity. The aim of current research was to study meteopathic reactions in young people that have relatively high stress level adapting to new climatic and social conditions on example of foreign students.

Materials and Methods. The research was carried out in 60 foreign students of 2nd year of study of Kharkiv National Medical University aged 17-21, among them 26 men and 34 women. Meteopathic reactions were studied using the questionnaire "Meteo-Q".

Results. The study showed fairly high prevalence of meteoropathic reactions in foreign students – only 5% of examined stated absence of psychic and 11% of physical changes under the influence of meteorofactors. Among meteoropathic changes of psychic state the most widespread in foreign students were anxiety (62% of examined have moderate level of it), irritability and nervousness (29% with moderate level, 16% with severe level), difficulties with attention concentration (49% with moderate and 19% with severe level), and insomnia (28% with moderate level, 16% with severe). The most frequent changes of physical state were revealed in digestive system activity and included nausea (24% had moderate and 9% severe) and digestion disturbances (24% of examined people had moderate intensity). Special attention should be paid to findings about frequency of menstrual cycle disturbances in women related to changes of weather conditions – 13% of examined pointed moderate influence of weather changes on cyclic phenomena.

Conclusion. According to research results, it was revealed that young people from foreign countries have some decrease of adaptive capabilities in response to weather conditions changes that is shown in development of meteoropathic reactions of different intensity. Both physical and psychic changes appearing in such case may lead to worsening of organism's ability to adapt to intellectual and physical loads. Therefore, it's necessary to continue researches in that area with aim of prevention and correction of meteoropathy and disadaptation states.

Mezhenska K., Dolgov V.

**ESTABLISHMENT OF CREDIBILITY OF THE EXPERT'S CONCLUSIONS
IN THE CASE OF FORENSIC DIAGNOSIS OF DEATH FROM
ELECTRICAL INJURY**

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Introduction. Diagnosing the cause of death from electrical is one of the most pressing problems of forensic science and practice. Death by the electric current in the forensic practice is 7% of all cases of violent death. Nevertheless, a large number of diagnostic features, the use of modern methods, does not provide enough opportunities for studying expert recommendations on the causes of death that cause their subjectivity. The purpose of the study is to improve the diagnosis of the cause of death from electric current using modern mathematical and statistical methods. The research tasks are to determine the frequency of internal and external signs of death from electrotrauma, establishing the coefficient of significance of each feature.

Materials and Methods. The material of the study was 22 corpses of people of different ages that died from electric trauma. Morphological macro- and microscopic data were studied using the Bayesian postulate.

Results. In our study, death from electrical prevalent in males aged 18-64 years (92%). A third of the victims at the time of death were in a state of alcoholic intoxication varying severity that should be considered when evaluating the pathogenesis of death as a favorable factor. Most of them were found on the following macroscopic signs:

signs of sudden death (dark liquid blood in the heart and large vessels, Tardier stains signs of spontaneous bowel movement) - 87% epidermolysis - 68%, dry necrosis areas - 81%, rumen zone - 72% , electro-marks - 91%, the formation of "bone beads" - 43%. Microscopically were found: metallization of the skin - 93%, singeing of the hair - 48%. The formation of Shridde honeycombs in the stratum corneum of the epidermis is 89%, the basal and prickly layer of the cells is pulled out in the form of a "stockade" - 86%. The statistical probability of diagnostic signs of death from electrotrauma was determined using the mathematical Bayesian postulate, which corresponds to the frequency of their occurrence. A table of diagnostic factors has been created with the help of which it is possible to establish the reliability of the expert opinion on the causes of death. If the sum of the statistical probability of diagnostic features is 95% or more, then expert advice on the cause of death should be considered reliable. Conclusion. The use of the proposed method of substantiating the expert's opinion on the causes of death will make it possible to increase the objectivity, evidentiary value and quality of forensic diagnostics.

Orlova T.

MULTIPLE INFECTIONS IN THE PATIENT WITH AIDS. CLINICAL-PATHOMORPHOLOGICAL OBSERVATION

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Introduction. AIDS (acquired immunodeficiency syndrome) is a syndrome caused by a virus called HIV (human immunodeficiency virus). The disease alters the immune system, making people much more vulnerable to infections and diseases. This susceptibility worsens as the syndrome progresses. HIV is found throughout all the tissues of the body but is transmitted via the body fluids of an infected person (semen, vaginal fluids, blood, and breast milk). HIV/AIDS is a global pandemic. As of 2014, approximately 37 million people have HIV worldwide with the number of new infections that year being about 2 million. To analyze the pathomorphological features of multiple infections in the patient with aids on the example of a clinical-pathomorphological case.

Materials and methods. Clinical-pathomorphological observation of the patient K., 30 years old, who was treated in Kharkiv Regional Clinical Hospital (KhRCH).

Results of research. The patient was brought in KhRCH by the ambulance in severe condition. It is known from anamnesis that within a month there was an increase in blood pressure, within a week - a headache. On the eve the condition worsened, headaches intensified, there was an acute weakness in the limbs. In neurological status: formal contact, does not follow instructions, pupils are dilated, equable, restriction of movement of eyeballs in all directions. Right-sided hemiparesis. With magnetic resonance imaging: multifocal lesion of a brain substance of a secondary nature. Consultations of the cardiologist (metabolic cardiomyopathy), infectologist (B 22.0, IV clinical stage). The immunoenzymometric analysis was performed. Due to the severity of the condition, she received treatment in the intensive care unit (L-lysine,

proxium, medovir, rheosorbilact, Ringer's solution, symptomatic cure). The patient's condition remained severe and biological death was fixed on the third day at hospital. The body of the deceased was sent to the pathoanatomical department with the final clinical diagnosis: B22.0. Human immunodeficiency virus (HIV) infection, IV clinical stage. Multifocal brain damage, combined with damage of organs and systems. Cachexy of the 2nd degree. Generalized lymphadenopathy. Candidiasis. The data of the pathomorphological study (productive encephalitis with the presence of multiple foci of brain necrosis, productive myocarditis with small focal necrosis of cardiomyocytes, candidiasis of the mucous membranes, reduction of lymphoid follicles of the spleen) and immunoenzymometric analysis made it possible to put multiple infections in a patient with AIDS as the main disease (in 20.7). The disease was compounded with edema-swelling of the brain with the involvement of the cerebellar tonsils into the large occipital aperture. The immediate cause of death was the dislocation of the brain stem. Comparison of clinical and pathoanatomical diagnoses is a coincidence.

Conclusions. The late diagnosis of HIV infection and the lack of adequate therapy at the prehospital stage determined the development of the patient's detailed clinical picture of AIDS with severe inflammatory-destructive lesions of internal organs.

Poliakova V., Korsunov K.

DESTABILIZATION OF MEMBRANES OF THE CELLS OF THE ADRENAL GLANDS BY THE ACTION OF EMR

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Introduction. In modern world people are constantly under the influence of electromagnetic radiation of different intensities. EMR is one of the least researched types of pathogenic factors. Person physically does not feel the effects of EMR which manifests itself change the electronic structure, orientation and conformation of biological macromolecules. Body cells observed shifts of DNA, ATP, increased permeability of cell membranes, the concentration of free radicals. The intensity of the formation and accumulation of free radicals in the body is regulated by intracellular antioxidant system (AOS) which indicators include the activity of catalase, superoxide dismutase (SOD) that play a crucial role in the period of growth and development of the body. Violation balance of AOS often leads to destabilization of biological membranes, activation of lipid peroxidation. The aim of our study is to describe change of levels of catalase and SOD in adrenal glands of rat 3 and 5 months of age against 2 hours/day the background EMR.

Materials and methods. Studies were performed on 24 rats line of WAG, weighing 100-140g, aged 3 and 5 months. Model of EMR effect on biological organism was reproduced by using the apparatus "EMIBIO-1.1" (Ukraine). The activity of catalase and SOD in adrenal homogenate determined by standard biochemical methods

Results of research. It was found that on the background of EMR effect content of catalase in rat adrenal homogenate 3 months of age were increased on 2.8 times and

catalase content were increased in older animals (rat 5 months) in 1.2 times compared to the control group. Increased reliability is $p < 0.0001$ and a value of $0,506 \pm 0,012$ and $0,487 \pm 0,012$. When comparing indexes of activity of a catalase in a homogenate of adrenal glands of three-months rats with group of five-months rats it is established that activity of a catalase is increased twice than its activity at adult animals. Activity of SOD at rats of three-months age exceed experimental indicators of contents control by 2,6 times, and in group of five-months animals by 1,8 times. Increased reliability is $p < 0.0001$ and corresponds to the values of $32,53 \pm 0,01$ and $30,43 \pm 0,05$ animals according to their age. Activity of SOD at rats of three-months age exceed experimental indicators of contents control by 2,6 times, and in group of five-months animals by 1,8 times. These figures may be the fact of stimulating adrenal cells enzyme systems by pathogenic influence of EMR in experimental animals

Conclusions. It is noted that against the background of EMR is increase in activity both catalases, and SOD in comparison with control indexes is observed in both age groups. It is established that expressiveness of indicators of increase in activity of antioxidant system in a homogenate of adrenal glands is observed in group of younger animals in relation to group of more adult animals. It can testify to instability of protective systems of cell-like membranes and larger vulnerability to action of EMR of the developing organism.

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FEATURES OF HEALING OF RADIATION SKIN ULCER INFECTED BY PSEUDOMONAS AERUGINOSA

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Introduction. The complications of the radiation therapy of malignant tumors in humans are radiation skin ulcers (RSU) which are characterized by prolonged, hindered healing processes and their frequent contamination.

Materials and methods. Aim of the study: to reveal the features of healing of RSU infected by *Pseudomonas aeruginosa*. Material and methods. An experiment was carried out in rats of WAG line in the course of which two groups were formed: group I (n=15) – the animals were simulated RSU in the hip, group II (n=15) – the animals were simulated RSU in the hip with ulterior application of *Pseudomonas aeruginosa* suspension on its surface. The animals were brought out from the experiment on the 14th, 21st, 30th, 37th, 52nd day. The material was the skin with subjacent soft tissues from the area of radiation ulcer. The slides stained with hematoxylin and eosin were studied on the microscope «Olympus BX-41» with the subsequent processing by the program «Olympus DP-soft version 3.1» with the help of which the area of the vertical cross section of RSU was measured. The average index values were compared using Mann-Whitney U-criterion.

Results of research. In group I the area of the vertical cross section of RSU had a tendency to decrease from the 14th to the 21st day (14th day – $(1405.67 \pm 87.42 \text{ mm}^2)$, 21st day – $(1298.67 \pm 28.05 \text{ mm}^2)$), it was significantly decreased from the 21st to the

52nd day (30th day – $(1032.67 \pm 38.34 \text{ mm}^2)$, 37th day – $(950.33 \pm 18.88 \text{ mm}^2)$, 52nd day – $(715.33 \pm 34.15 \text{ mm}^2)$). In group II the area of the vertical cross section of RSU didn't change significantly from the 14th to the 21st day (14th day – $(1440.67 \pm 13.76 \text{ mm}^2)$, 21st day – $(1432.67 \pm 33.21 \text{ mm}^2)$), it was significantly decreased from the 21st to the 30th day (30th day – $(1177.33 \pm 39.94 \text{ mm}^2)$), it had a tendency to decrease from the 30th to the 37th day (37th day – $(1041.67 \pm 40.72 \text{ mm}^2)$), it was significantly decreased from the 37th to the 52nd day (52nd day – $(807.00 \pm 7.51 \text{ mm}^2)$). Decreasing the area of the vertical cross section of RSU in groups with the increase of the experimental period evidenced about the healing process of the wound cavity. In group II comparing with group I the area of the vertical cross section of RSU was not significantly different on the 14th day, it was significantly larger on the 21st day, it had a tendency to increase on the 30th day and it was significantly larger on the 37th and 52nd day.

Conclusions. The presence of *Pseudomonas aeruginosa* in the RSU comparing with the uninfected RSU leads to increase the area of the wound cavity and substantial inhibition the processes of its healing.

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THE IMPACT OF TEMPERAMENT TYPE ON SOCIAL NETWORKING ADDICTION

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Introduction. Nowadays, the Internet has become an integral part of our everyday lives due to scientific progress. People prefer social networking websites to real-life communication. According to researchers, this is a sign of a serious psychophysiological problem of social adaptation. The purpose and problems of work was to find a correlation between the time spent by medical students on social networking sites and different types of temperament. Materials and Methods. Eighty-seven second-year medical studentstook part in this study. Theygave informed consent to participate in the experiment. Results. At the initial stage of the experiment students were subdivided into four groups based on the determination of their temperament types usingthe Eysenck Personality Questionnaire. It was found that most research participants had sanguine (38.2%) and choleric (39.8%) temperaments. The phlegmatic (15.5%) personality type was observed much less frequently (15.5%). The melancholic temperament was the least common (6.5%). The students had to fill in a questionnaire that allowed evaluating the impact of time spent by research participants on social networking services on their lives.

The phlegmatic and melancholic research participants were able to spend less time on social media. The sanguine and choleric students could not easily stop communicating on social networking websites on the Internet. They spent 3-5 hours per day on social media.

Conclusion. The melancholic and phlegmatic students spent up to 1-2 hours per day,

communicating on social networking services. The questionnaire survey showed that the sanguine and choleric research participants were registered with the higher number of online social networks. The obtained results indicate the serious impact of social networking services on lives of students with different types of temperament. The choleric and sanguine students are more susceptible to social networking addiction.

Samchenko K., Kozeichuk P.

SLEEP AND ITS IMPORTANCE IN THE PROCESSES OF ADAPTATION OF YOUNG PEOPLE TO INTELLECTUAL LOADS

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Introduction. The problems of adaptation of young people to the conditions of intellectual activity often manifest in violations of the "sleep-wake" cycle, and sometimes the development of insomnia. The prevalence of insomnia in the population, according to numerous studies, is up to 48%-70%, proving the necessity of study of its main forms. The aim of this work was to establish physiological parallels between the subjective characteristics of night sleep and the features of adaptation of young people to intellectual loads.

Materials and Methods. The study was carried out in 165 practically healthy people aged from 17 to 21 years. The somnological status was determined using an original questionnaire that included questions about adherence to work and rest regime, presence of sleep violation, time of entering into sleep, duration of sleep, nature of sleep structure, time of awakening, dynamics of working capacity, indicators of the psychoemotional state.

Results. At the stage of survey analysis, noticeable differences in the structure of the somnological status of the subjects were revealed. A group with disturbances in the "sleep-wakefulness" cycle with risk of developing insomniac disorders and decrease in the level of adaptation of mechanisms to intellectual loads was defined. The contingent of this group was 121 (73%), and only 44 (27%) had no signs of sleep disturbance (control group, CG). According to the assessment of somnological status, the duration of night sleep in the average for the risk group was 362 minutes, and in CG – 422 minutes in weekdays. Partial "compensation" for lack of sleep students usually eliminated on weekends and days off, increasing the duration of sleep to 10-13 hours per day. The total duration of sleep was an average of 8% less in the risk group. In structure of sleep among persons at risk, attention is drawn to the lengthening of the period of falling asleep in 29% and the lengthening of the morning waking up period in 42%. Subjective dissatisfaction with the nature of sleep and its duration was noted in 50% of the respondents at risk. 17% complained of frequent awakenings during sleep. The most common cause of sleep disturbance, as noted by 73% of respondents, is the so-called adaptive insomnia.

Conclusion. Thus, in the group of young healthy individuals subjectively unsatisfied with the quality of sleep, there were signs of change in the sleep-wake cycle comparing

to CG, that characterized the depth of sleep and its intensity and, as a consequence, the occurrence of disturbances in daytime functioning. It can be assumed that the presence of such changes in the structure of sleep in persons at risk indicates the possibility of development of insomniac disorders and as a consequence a violation of the adaptive capacity of the organism to intellectual loads.

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FEATURES OF FUNCTIONAL INDEXES OF EXTERNAL RESPIRATION IN ELEMENTARY SCHOOLERS

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Introduction. Functional system of respiration constantly contacts with aggressive factors of external environment, including smoke, chemical substances, viruses etc. The prevalence of respiratory diseases in children remains stably high and doesn't show any tendency for decrease. According to official statistics data, in children up to 14 years respiratory diseases possess the first place and comprise about 62-65%. Estimation of physical state of a child, prognosis of his future development and prevention of various respiratory diseases is possible in case of thorough research of age-related dynamics of respiratory system parameters. The aim of research was to study the age-related features of functional indexes of respiratory system in elementary schoolers.

Materials and Methods. The research was carried out in 58 elementary schoolers of Melitopol Education complex №16, among them 28 girls and 30 boys. Tidal volume (VT) and vital capacity (VC) were determined with help of dry spirometer, functional residual capacity (FRC) was calculated using standard formula. Data processing was done with help of Microsoft Office Excel 2010.

Results. The study showed increase of VC according to age – in girls that increase constituted 4%, in boys – 21%. VT in girls aged 6-8 years is nearly the same, however, at 9 years it begins to rise. In boys the dynamics of VT changes was determined – VT of boys aged 9 years exceeds that of boys 6 years on 36%. FRC in 6 y.o. boys is 12% less than of 9. y.o. boys. Mean values of FRC in girls are less than in boys on 12%. Those results prove that the indexes of respiratory system greatly depend on individual functional-typological and anatomical characteristics of the organism. It was revealed that those indexes rise according to the age due to changes of height, chest circumference, etc. Research data showed that at 6-7 years respiratory indexes in children don't have significant differences, but from 8 y.o. onwards indexes in boys exceed those in girls due to differences in their physical development.

Conclusion. Current study showed that in all examined elementary schoolers indexes of respiratory system were in normal range, thus most of students of Education complex №16 don't have significant disorders of respiratory system. However, it's necessary to continue the monitoring of respiratory system in children of that age for evaluation of their organisms state and well-timed revelation of risk of possible pathologies development.

Shafranetskaya V., Sukhonosov R.

THE RADIOLOGICAL EXAMINATION OF THE NEWBORN WITH THE HYPOPHOSPHATASIA

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Introduction. The children's health is a very important question of the modern medicine. The earlier detection of pathologies involves a positive dynamic in the determination of questions of the childhood's health. Study of the newborn's pathologies in the aspect of the radioanatomy.

Materials and Methods. Analysis of the specific medical literature.

Results of research. The radiological examination of the newborn with hard affection demonstrates the change of the whole skeleton with the underdevelopment and weak mineralization of bones. The head can be spherical, and the skull can be without bones. It gets the look of caput membranaceum or it can be partly ossified, for example in the parietal areas. The defect of ossification of long bones can evoke the roughening and the roughness of proximal parts of bones. The radiolucent areas of the metaphysis can be streaked or spotty. The metaphysi of long bones can be dilated, they have radiolucent stripes. The picture, which reminds rachitis, is pathognomonic for the hypophosphatasia of newborns. The striation of the metaphysis can be observed in the prenatal rubella and the radiolucent stripes of the metaphysis – in the prenatal syphilis, however in the combination with the non-ossified skull and the lesion of limbs are observed only in the hypophosphatasia. The radiological signs are less evident in the child form of the disease because particular bones of the calvaria are relatively good mineralized. The weak widening of the long bones' metaphysi is observed, the radiolucent stripes in the metaphysis are usually absent. In adults signs of the disease are non-specific and include the general loss of the bone density with the pathological fractures, which heal slowly but fully. Also occur traumatic fractures and pseudofractures. The last ones are usually located in the lateral areas of the undertrochanteric parts of both hips. The post-rachitic deformation of long bones and the modified skull in the form of 'forged copper caldron' are met less often.

Conclusions. Macroscopically in children epiphaphic cartilaginous plates are expanded. In case of the microscopy the disordered organization of the cartilaginous cells in the area of the proliferation is visible and the mineralization of the proliferative cartilage's matrix is absent. The mineralized matrix prevails in the metaphysis. The thickening of ribs (rachitic 'beads') on the bone-cartilaginous connections consist of the slightly mineralized bone-like material. The older children can have unusual expansion of the growth plates. The histological picture reminds the rachitis with the enlargement of the width of the bone-like streaks of the bone's trabecula. The adults have the same signs as in the osteomalacia. Apparently, the pathology is connected only with the alkaline phosphatase.

Shakiryanova A., Gyschka J.

STRUCTURAL CHANGES IN PLACENTA DUE TO HYPOTONIC UTERINE BLEEDING

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Introduction. Health of a newborn depends on features of antenatal period. Mother's pathology, complications of pregnancy and labor can lead to disorders in child's development both in neonatal period and later.

Materials and Methods. There were done studies of placentas of women with hypotonic uterine bleeding in comparison to placentas of women with physiological pregnancy (control group). Placenta tissue from the peripheral and central parts after the fixation was studied with routine histological methods (Hemotoxylin and Eosin, Van Gieson's stain). Observations were made using a microscope Olympus BX-41.

Results. Decrease in weight, thickness, area and average diameter of placenta were revealed during the studies of placentas of women with hypotonic uterine bleeding. These changes did not depend on localization of placenta in the uterine cavity. Decrease in vascularization of all parts of placenta was microscopically observed. Proliferation of endothelium, hypertrophy of muscular layer, overgrowth of perivascular connective tissue with formation of fibrous cuffs were noticed in vessels of villi. These changes lead to vascular luminal narrowing and in some areas to total obliteration of vessels.

The second peculiarity of placentas of women with hypotonic uterine bleeding was more expressed involutive processes in comparison to control group. Ischemic infarctions, increased quantity of maternal fibrinoid and also polymorphism of villi were observed in the placenta. Besides, large amount of immature villi with edematic stroma, extant stromal channels and numerous Hofbauer cells were observed too. Areas of capillary hyperplasia and arteriovenous anastomoses were evaluated as compensatory-adaptive processes.

Conclusion. A reduction of villi's vascularization, a persistence of immature villi, adaptive and compensatory reactions were found in the placenta. The intensification of involutive processes and sclerotic changes which led to reduction of weight and size of placenta were observed due to hypotonic uterine bleeding.

Shcholok T., Molchanova A.

MORPHO-FUNCTIONAL PECULIARITIES OF MYOMETRIUM DUE TO HYPOTONIC UTERINE BLEEDING

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Introduction. An obstetric hemorrhage may occur before or after delivery, but more than 80% of cases occur postpartum. A massive obstetric hemorrhage, resulting from the failure of normal obstetrical, surgical or systemic hemostasis, is responsible for

25% of maternal deaths every year. It is known that one of the most common reasons of the hypotonic hemorrhage is primary and secondary uterine inertia. The aim of this study was to find out the morphological features of myometrium due to hypotonic uterine bleeding. Materials and Methods. The study was carried out on 10 uteri which were amputated from women with hypotonic uterine bleeding due to uterine inertia. The morphological study was conducted using routine histological (Hematoxyline and Eosin stain, Van Gieson's stain) and histochemical (green-pyronin method, Feulgen's nuclear reaction, PAS reaction) methods. Observation was made using a microscope Olympus BX-41. Results. It was found that the major part of myometrium was represented with middle circular layer with hypertrophic smooth muscle cells in uterus from women whose delivery was complicated by uterine inertia. The prevalent number of the myocytes had dystrophic changes. Significant swelling was observed both in the interstitial connective tissue and in myometrium. Areas of sclerosis were identified among muscular fibers using Van Gieson's stain. Decrease in intensity of methyl green-pyronin method for RNA (MGP) in cytoplasm of myocytes was observed while hystochemical studying. At the same time, increase in intensity of Feulgen's nuclear reaction for DNA was noticed. Endothelium located on thickened brightly PAS-positive basal membrane was clearly observed in arteries of myometrium. Proliferation and desquamation of endothelium into the vessel's lumen were found in some places. Fibrinoid necrosis was rarely observed in walls of the artery. Conclusion. The manifest involutive, dystrophic and sclerotic changes in muscular cells and arterial walls that lead to decrease in metabolic processes of myometrium were observed in myometrium of women with hypotonic uterine bleeding.

Skoryi D.

INVESTIGATION THE CORRELATION OF THE LEVEL OF SELF-ASSESSMENT OF HUMANS WITH SUSTAINABILITY TO INFORMATION STRESS

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Introduction. Despite nearly a century of history, the concept of G.Sellet (1936) "general adaptation syndrome" continues to remain relevant. This is due to the fact that in the process of vital activity the human body meets a huge number of stressors. Along with the development of human society, new and new stress agents constantly appear and develop, which lead to the development of pathophysiological changes. One of the modern types of stress is informational. Information stress is a condition that a person experiences with an increased or reduced information load, which differs from his normal information background. One of the extreme forms of information stress is the complete cessation of information from various sensory systems.

Materials and methods. The study of this problem is becoming more actual due to the increasing lever of informational stress in human lives, whose activities are related with an obtainment, analysis and further using of information. At the same time, human activity in the context of information stress is largely predetermined by the personal psycho-physiological characteristics of the organism. It is established that stress-response can cause adaptation or disadaptation reaction in the whole organism or in its separate functional systems.

Results of research. The type of response depends on the psychophysiological characteristics of an organism, the most important of which are the individual typological features of cognitive processes, such as the level of self-esteem. Depending on what preliminary assessment is given to the impact factor, stress can take on various forms, ranging from complete absence to severe disturbances of activity that stop making the right decisions and disrupt the whole process as such. It is very important to realize the pathophysiological changes that take place in our organism when informational stress occurs. From a position of the development mechanism, informational stress is a type of psychological stress based on the informational-cognitive disorders in regulation. According to the mechanisms of development, information stress is referred to the category of psychological stress, which is based on information-cognitive impairment of regulatory processes. As an informational stress agent some simple arithmetic problems were taken, with an increasing number and complexity of tasks. Also every competitor was asked about his or her attitude to own math abilities, which allowed to reveal the presence of a correlation between these two indices. During our scientific research, all participants were asked the question: "How well do you evaluate your skills in solving simple arithmetic problems, by type $23-5$, $3 * 7$, etc., on a scale of 1 to 10?". Then the participant called the number, after which he was introduced to the rules of the game, which serves as a test of his arithmetic abilities. The game itself gives 3 attempts to solve problems, while it has the following properties: an increase in the number of examples, an increase in the necessary speed of the solution, and a decrease with every subsequent attempt at a threshold level of a successful solution of the problem. Thus, the game provokes human information stress, the success of which is displayed in the number of correctly solved examples. Based on our research the following results were obtained. 60% of people have a low level of self-confidence and 40% of people have a high one. The average result in solving arithmetic tasks in the group of people with high self-esteem by 23.4% was higher.

Conclusions. From the data obtained, we can conclude that people who appreciated their arithmetic abilities in advance successfully coped with the game. It follows that preliminary self-assessment has a direct influence on the ability to counteract the manifestations of information stress in solving the tasks problems.

Topchii S.

THE TONSIL OF THE CEREBELLUM IN THE CLINICAL ASPECT

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Introduction. Neurosurgical management of cerebellar lesions remains challenging. Therefore, it is important to have sound knowledge of the microsurgical anatomy of the cerebellum in general and its structure components in particular for modernization surgical approaches (transvermian, supratonsillar, telovelar and subtonsillar) on the brain stem, the fourth ventricle, etc.. We studied morpho-functional features of tonsil of the cerebellum (TC), its blood supply in people of different age considering the anatomical features of the posterior cranial fossa.

Materials and Methods. We dissected 120 formalin-fixed hemispheres of the cerebellum from corpses of people of both sexes aged from 21 to 90 years old who died from accidents or from diseases not related to CNS damage, cardiovascular system, without any damages of the head. The study involved classical investigation methods by means of modern photo-assisted techniques, macro- and microscopic dissection methods.

Results. The strong relationship of sizes of the TC to linear dimensions of the cerebellum and its shape was defined $|r| = 0,80$ ($p < 0,1$). We were the first to describe the seat of the TC. We found out several basic types of blood supply of the cerebellum, set up anatomical features of the course of the vascular bed, surrounding the TC. This anatomical structure is bounded medially by the posterior-lateral edges of foramen magnum, anteriorly by sigmoid sinus, posteriorly by internal occipital crest. TC is visualized in the tomography, pre-tomography examinations. The next dimensions of TC were found out: the width, the length and the thickness. The width of the right TC $Me = 21'10-3m$ ($S = 31'10-4$, $CV = 7,5\%$), the length of it $Me = 18'10-3m$ ($S = 22'10-4$, $CV = 8,1\%$), the thickness $Me = 14'10-3m$ ($S = 27'10-4$, $CV = 10,1\%$), weight $Me = 2,6gr$, volume $Me = 2,5cm^3$. Corresponding dimensions of the left TC were $17'10-3m$ ($S = 26'10-4$, $CV = 8,4\%$), $15'10-3m$ ($S = 30'10-4$, $CV = 11,6\%$), $12'10-3m$ ($S = 21'10-4$, $CV = 7,3\%$) and weight $Me = 2,3gr$, volume $Me = 1,8cm^3$. Therefore, we can say about significant asymmetry of TC in 87%, from which the left-sided asymmetry was found out in 13% and the right-sided \rightarrow in 87%. Both men and women had the right-sided asymmetry, but it was more significant in male.

Conclusion. Thus, we can say that TC is of very important functional meaning in the approaches of neurosurgery because functionally and anatomically it is closely related to all anatomical structures of the cerebellum. Therefore, it can serve as the additional reference point in the neurosurgical practice. We were the first to study relations between the morphological features of the human TC and its linear dimensions. Received results can be used in the neurosurgery practice in the development of new, more efficient surgery interventions on the human cerebellum.

Tymbota M.

DEVELOPMENT OF ADAPTIVE PROCESSES TO INTELLECTUAL LOADS IN MEDICAL STUDENTS

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Introduction. Understanding of physiological basis of stability to psycho-emotional stress and development of basis for its improvement are complicated due to narrow circle of experimental conditions and usually ignored factors, including social that create nervous and psychic stress, and evolutionary unnatural influences of technic origin. Most of researches related to that topic evaluate state of only one visceral system, however, the basis of successful adaptation is the unity of organism that proves the importance of current research.

Materials and Methods. Research was carried out in 217 female students of KNMU of 1-3 years of study. Pulse rate was measured by palpation, arterial pressure by method of Korotkov, breath-holding tests were done. For physical load the bicycle ergometry and for intellectual working efficiency the correction test of Burdon were used. Results. Data showed that development of adaptation syndrome in those conditions greatly depends on speed of formation and intensity level of intersystem integration in cardiorespiratory system. That relation is revealed most of all on the background of physical activity (load on bicycle ergometer to the full). The variability of stages of adaptation development was found out. In first group of students the first stage of adaptive syndrome is characterized by activation of non-specific adaptive mechanisms (1st year of studies), that is naturally replaced by second stage – specific adaptive reactions, when the intellectual work capacity increases on the background of rationalization of its autonomic supply. In second group of students the second variant of adaptation development occurs – non-specific adaptive mechanisms (1st stage) on the 2nd year of study are changed by the stage of specific adaptation (2nd stage), that is accompanied by excessive psychophysiological indexes. On the 3rd year of study it leads to the depletion of adaptive capabilities (3rd stage). In third group of students the stage of activation of non-specific adaptive mechanisms was rapidly changed by their depletion that was accompanied by decrease of intersystem integration and intellectual workability.

Conclusion. The formation of adaptive optimum occurs only in 40% of students. The majority (60%) of students-young women show either the initially insufficient adaptive capabilities, or excessive adaptation, both of which lead to psychological and autonomic disorders followed by appearance of psychosomatic neurotic manifestations. The prospects of future research from our point of view should lie in further investigation of gender peculiarities of adaptive reactions development up to psycho-emotional stress that will reveal the features of mechanisms of resistance formation depending on gender.

Tyrkin D., Shutova I.

**REACTIONS OF PERIPHERAL BLOOD AGAINST ACTION OF
ELECTROMAGNETIC RADIATION OF RANGE OF THE MOBILE PHONE
ON RATS OF DIFFERENT AGE**

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Introduction. Over the past decades, technological progress has introduced a new biologically significant exogenous factor – electromagnetic radiation (EMR). The large discrepancy of data on the electromagnetic radiation effects on the human body, especially the mobile phone (MP) range, and the lack of scientifically described mechanisms that would disclose the pathogenesis of this action highlight the urgency of the problem.

Materials and Methods. Study involved 36 pure line male rats weighing 100 - 120 g, aged 3 and 5 months. EMR of MP range (890-915 MHz) was modeled using the apparatus “EMIBIO -1.1” (Ukraine), which is intended for research of EMR effects on biological objects in the laboratory. The general dynamics of peripheral blood against the background of short-term (30 min/day) and long-term (120 minutes/day) exposure to EMR was studied.

Results. It was determined that at the short-term EMR exposition in 3- and 5-month rats the decrease in the total number of red blood cells (RBC) and white blood cells (WBC). The decrease in RBC occurred almost equally in both groups of animals (1.3 times less compared to control). WBC count had a more pronounced downward trend in the younger group compared with older animals, so the number of neutrophils in the 3-month rats was reduced by 1.2 times relative to neutrophils number in the 5-month rats. The younger group had also more pronounced lymphopenia and eosinopenia. The long-term exposure to electromagnetic radiation had shown reduction of RBC – 1.1 times, WBC – 1.2 times, neutrophils – 1.5 times, myelocytes - 1.75 times, lymphocytes – 1.08 times, eosinophils – more than 2 times. The degenerative forms in blood smears in both groups of animals were found. Expression of peripheral blood response in younger animals was 2 times lower than in adult animals. Conclusion. These data suggest that the effects of EMR of MP range negatively affect the quantity and quality of the peripheral blood of rats, as evidenced by the development of erythropenia and leucopenia in both groups of animals. It was determined that evidence of peripheral blood reactions depends on the exposure time, because a tendency to decrease the number of blood cells is more pronounced on the background of long-term exposure than of the short-time exposure to EMR, and on the age group of rats, because more pronounced changes were observed in more younger animals.

Yanioglo O., Krukovets N., Sokol E.

EMOTIONAL STRESS ADAPTATION ASPECTS ON THE BACKGROUND OF ORGANISM GENERAL ELECTROMAGNETIC IRRADIATION (EMI)

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Introduction. The distinguishing feature of the modern human vital activity conditions is the environment saturation with various factors that affect physical and psychophysiological state, working capacity and resistance to diseases. These include electromagnetic waves, generated by the variety of industrial sources, communications

means, scientific research, medicine and in everyday life. Therefore, one of the most promising ways of maintaining vital activity at the desirable health level is the actualization of the reserves of psychophysiological adaptation to various influences. The present work purpose is the study of emotional stress adaptation vegetative components under conditions of organism low intensity general electromagnetic irradiation.

Materials and methods. Experimental studies were conducted on 83 male rats of the Wistar population, which were exposed to 72 hours long continuous general irradiation by nonthermal intensity electromagnetic waves. Emotional stress loads were reproduced in conditions of a realistic model of experimental emotional stress – «stress of expectation». Adaptation process vegetative supplying was studied by consistency of cardio-respiratory frequency indices according to the index of conjugation ($IC = \text{heart rate} / \text{respiratory rate}$). For a more adequate interpretation of the data obtained, the animals were preliminary grouped according to the nature of locomotors reactions to sound into three types: «inhibitory», «balanced» and «excitable».

Results of research. The long exposure to electromagnetic radiation (EMR) induced multidirectional changes in heart rate and respiration frequencies, mismatch of conjugation of the studied indices during emotional stress adaptation, as well as the information indicators infrastructure decay. This resulted in the proper and actual IC values difference decrease from $11,3 \pm 0,42$ in the initial state to $21,4 \pm 1,35$ on the EMR background. It was observed that the genetically determined predominance of the processes of excitation or inhibition is a factor that reduces the resistance towards EMR. When analyzing the infrastructure of correlation relationships, there was a displacement shift, the most pronounced connections of the group of functional cardio-respiratory indices from the heart rate to the frequency of respiration.

Conclusions. The long-term organism general irradiation with low intensity electromagnetic waves causes disorder of the intersystem integration and the regulation vegetative mechanisms concurrency during emotional stress adaptation process.

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LABILITY OF VISUAL PERCEPTION IN PROCESS OF ADAPTAION TO INTELLECTUAL LOADS

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Introduction. Informational-analytical and emotional stress of the first years of study at the Medical University accounts to the period of social and psychological adaptation of young body. The intense flow of information that students need to learn in the first three years of study at the Medical University is handled mainly by visual sensory system. The adequacy of the decisions made and the psychological formation of the personality at a young age is depends on its work in conditions of psycho-emotional overloads. Therefore, the question of the efficiency of the visual analyzer in conditions of intense intellectual stress is a relevant psychophysiological problem for

students. Objective: our aim was to study neuroscientific lability of visual perception in conditions of intellectual work during adaptation to informational stress.

Materials and methods. The study involved 67 medical students in the age of 18-20 years who gave voluntary written consent to participate in the experiment. Distribution of students in the experimental group was performed according to the level of the differential sensitivity of their visual analyzer using the method of Galton measurement line. As a result, we received three research groups of students with high, medium and low differential sensitivity of the visual analyzer: I group – 33,3%, the second group – 40,8%, III group – 25,9%. Examinees took part in series of experiments involving different lengths of installed lines segments, arrows and angles of inclination in order to calibrate the Galtons line. It was discovered that Muller-Layer illusions depend on the line parameters. The greatest stability was observed in 5sm lengths line and viewing distance of 30-35sm. Line with this parameters was used in the next experiments. Before and after the tests of mental capacity and mental pace were performed using Kraepelin method.

Testing of the level of personal and reactive anxiety on a Spielberger-Hanin scale was also managed before and after assessing mental capacity and mental rate using Krepelin methodology.

Results of research. The threshold for the advent of the illusion of motion of visual stimuli of students the intellectual load in all three study groups was concentrated in medium parameters of perception of moving objects, namely, the number of students in the I st group – 44,5% in II group – 54,6% and III group – 71,4%. A similar distribution of students with concentration of anxiety on the middle level was observed as a result of testing scale Spielberger-Hanin: the I st group – 55,6% in group II – 54,6% and III group – 57,2%. After the intellectual load a significant decrease occurred in system dynamics perceptions of moving objects - increasing the time perception of minimum time interval between two stimuli separated in space, which were presented sequentially. The number of students in the experimental group, in which the sense of offset of optical stimuli depended on time decreased, in the I st group – 55,6% in group II – 54,6% in the III rd group – 57,2%. The results showed that the average value of temporary differential sensitivity threshold of specified time motion of visual objects in all groups significantly increased. Also, the percentage of students with high and medium levels of anxiety as a result of intellectual activity – increased.

Conclusions. Discovered the reduction of average value of threshold appearance of the illusion of motion of visual stimuli of students before the intellectual load and increase of it after exercise – indicates a decrease in dynamic systems perception of moving objects and the tension of functional mobility of nervous processes. Thus, the average time value of differential threshold perception of visual motion objects is reliable diagnostic sign of intellectual and psycho-emotional stress. The level of personal and situational anxiety affects on differential visual perception, which in general also reflects the degree of psycho-emotional stress.

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DIFFERENTIAL VISUAL PERCEPTION OF MEDICAL STUDENTS WITH DIFFERENT LEVELS OF FRUSTRATION

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Introduction. The intensity of information flow in conditions of modern scientific and technological progress is a strong stress factor, especially for young people, who study. Under conditions of information overload psychological characteristics can change the state of tension of nonspecific mechanisms of stress realization. The greatest psychoemotional tension in human behavior is caused by reactions of frustration. Therefore, the matter of the research on the differential sensitivity of visual perception at various levels of frustration under conditions of information overload is a relevant psychophysiological problem for students.

Materials and methods. 47 second-year medical students at the age of 18-20 were volunteers to participate in the research.

The adequacy of behavior in frustrative situations was defined with the help of the Rosencveyg's test, which allowed to form three research groups. The first group (8,5%) consisted of students with strong state of frustration, which did not exceed the pathogenic intensity threshold. In the second group of examined students (29,8%) the state of frustration was moderate and slight. 61,7% were students with little or no frustration (the third group).

To study the differential sensitivity of the visual analyzer we calibrated Galton's number form on every examined student using rulers with different lengths of stated segments. The results of the dependence of Mueller-Lyer illusion on the parameters of the ruler were the most stable when the factual length of the segment was 5 cm and the distance from the eyes was 30-35 cm.

In all of the groups the research on the dynamics of the sensory perception processes of the visual motion estimation system was conducted with the help of the appropriate computer program, which defined the minimal time interval between the two separate and consistently submitted optical stimuli, while submitting of which an illusion of displacement from their original positions was felt."

Results of research. In the result of rating of the level of differential sensitivity the largest number of the students with a low sensitivity level was in the I group - 50%. The students of the II group (57.1%) showed an average level, and the majority of the students of the III group (44.9%) showed a high level of differential sensitivity of the visual analyzer.

The research of the differential time threshold of perception of the movement of visual objects in the experimental groups showed a significant change in the number of students in favor of a low sensitivity level of the visual analyzer with the emergence of false starts. In the result of statistical analysis, it was established that the average rate of the differential time threshold for the perception of the movement of visual objects in the III group was almost 20-25% less than in the I and II groups of students (accordingly, $60,2 \pm 0.4$ ms (III) and 73.6 ± 0.3 ms (II); 81.6 ± 0.2 ms (I); $p < 0.001$). The emergence of the number of false starts in the I (50%) and in the II (7.2%) groups was fixed. A lower average threshold rate of the appearance of an illusion of the movement of visual stimuli among the students, which was found out during our researches, means a higher dynamics of the perception system of moving objects. A large percentage of false starts in the I and the II groups of students implies the intensity of

the functional mobility of the nervous processes. Since the maximal possible frequency of cyclic signal processing is limited by the dynamics of the nervous processes in the central nervous system, then the higher the functional mobility of nervous processes is, the greater the frequency of cyclic processing of visual signals is, and therefore, the lesser time threshold for the emergence of motion illusion while consistent submission of the separate optical stimuli.

Conclusions. The revealed smaller average threshold rate of the essence of the illusion of the movement of visual stimuli among the students with a certain degree of frustration state implies a higher dynamics of the time threshold differentiation system of perception of the movement of visual objects in comparison to the static system of visual differentiation using the method.



THERAPY



**INTERNATIONAL SCIENTIFIC
INTERDISCIPLINARY
CONGRESS**

Afolabi Omotolani

CARDIVASCULAR EFFECTS OF MALARIA IN AFRICA

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Introduction. Malaria is a form parasitic infection caused by protozoans. It is transmitted by infected female Anopheles mosquito when they bite humans. The clinical presentation of patients with malaria includes fever, chills, weakness, malaise, headache etc. A number of infected patients in Africa still die of the disease especially among the children population.

Materials and methods. Comparative analysis of data from Ghana and Nigeria was used. Data of 108 children between age one and nine with severe malaria in Ghana was analyzed, their electrocardiography, biochemical and blood pressure parameters were recorded on admission. The blood pressure data of babies of 436 pregnant women who suffered from severe malaria was also used.

Results of research. Heart rates of these children were initially increased but later became normal and their blood pressure was high on the first day of clinical examination which was later low and accompanied by tachycardia in some children. Electrocardiography shows QT-interval shortening, slightly reduced amplitude of QRS complex($2.2\pm 0.2\text{mV}$) was also observed.

Conclusions. Malaria has a significant effect on the cardiovascular system especially as a severe disease. Cardiovascular changes observed are tachycardia, hypotension, also electrocardiography revealed QT-interval shortening, slightly reduced amplitude of R-wave among others.

Akinwumi A.

HYPOTHYROIDISM AS A CAUSE OF GALACTORRHEA AMONG AFRICAN WOMEN

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Introduction. Hypothyroidism is an endocrine condition whereby there is decreased production of thyroid hormones by the thyroid glands. Hypothyroidism clinical presentation includes weakness, low metabolic rate, cold intolerance, weight gain, myxedema, pretibial edema, hair loss, decreased libido and depression. Galactorrhea can be defined as a continuous discharge of milk from the breasts which is not related to breastfeeding.

Materials and methods. A retrospective comparative study of data of 36 women(Egypt), 90 women(Nigeria) in their reproductive age suffering from hypothyroidism. The levels of thyroid stimulating hormones, thyroid hormones(T4) and prolactin were estimated in these women. These patients were observed for galactorrhea.

Results of research. Thyroid stimulating hormone and prolactin levels were high and thyroid hormone(T4) is low in these patients, thus the diagnosis of hypothyroidism was confirmed. Symptoms of galactorrhea was present(Nigeria 63.3%, Egypt 57.1%) among these patients.

Conclusions. Hypothyroidism has a direct link with galactorrhea among these patients. Elevated Thyroid releasing hormone in hypothyroidism stimulates prolactin production which eventually leads to increased milk production in the breasts and eventually galactorrhea. Prolactin inhibits gonadotropin releasing hormone which causes decreased estrogen and progesterone leading to amenorrhea and infertility.

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EXERCISE-RELATED CARDIAC COMPLICATIONS

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Introduction. Although, habitual physical activity reduces coronary heart diseases, vigorous and high dosed exercise can acutely shut up the risk of sudden cardiac death in susceptible persons. The commonest forms of heart diseases associated with sudden death during exercise are coronary artery diseases and hypertrophic cardiomyopathy.

Materials and methods. Modern research has shown that safety of a patient who wishes to commence or continue exercise is better guaranteed by ruling out his/her risks of acute or chronic diseases associated with sudden death. The clinical strategy however faces some challenges. The incidence of such diseases in the exercising population is extremely low with estimated incidences varying from 1 per 10,000 active exercisers to 1 per 200,000 in children and young adults.

Results of research. Scientific statement based on research shows that hereditary and congenital cardiovascular diseases are predominant causes of cardiac events among young people (less than 40years) , whereas atherosclerotic diseases are responsible for such events in adults (more than 60) .

Conclusions. Exercise should be dosed according to age, intensity and duration. Also, putting patients with risks of sudden cardiac death on surveillance is key.

Al-Trawneh O.

EVALUATE THE IMPACT OF HORMONAL DISORDERS ON THE PROGRESSION OF CARDIOVASCULAR REMODELING IN PATIENTS WITH ARTERIAL HYPERTENSION AND DIABETES MELLITUS 2 TYPE

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Introduction. To evaluate the effect of the imbalance of visfatin in the blood serum on cardiovascular and metabolic disorders in patients with arterial hypertension (AH) and diabetes mellitus 2 type (DM2).

Materials and methods. The study involved 85 patients with stage II and 2nd degree of AH. The average age of the patients was 52.3 ± 5.6 years. The patients were divided into groups: 1st group (n = 42) with AH and DM2; group 2 (n = 43), patients with AH without DM2. The control group (n = 20) were comparable in age and sex. The fasting blood glucose (FBG), insulin levels and glycosylated hemoglobin (HbA1c) were determined. Insulin resistance assessed by HOMA model. The study of lipid metabolism: total cholesterol (TC) in blood serum, low-density lipoprotein (LDL), high-density lipoprotein (HDL), triglyceride (TG) were determined by using enzyme immunoassay. The content of C - reactive protein (CRP), visfatin was examined by using enzyme immunoassay. Echocardiography was performed to determine the structural and functional condition of the heart. To estimate the thickness of the intima-media complex of the common carotid artery (IMC CCA) was performed by duplex ultrasound. Statistical processing of the results carried out using Statistica program.

Results of research. In assessing the lipid spectrum, dyslipidemia was significantly more common in patients with concomitant course of the disease, comparatively with patients in 2nd group (87.4% and 44.6%, respectively; $p < 0.05$). CRP value and HOMA content patients in 1st group were significantly higher in comparison with indicators of 2nd group ($p < 0.01$). Left ventricular hypertrophy (LVH) was diagnosed in 68.2 % of patients in the 1st group and 36.2% of patients in the 2nd group ($p < 0.05$). IMC CCA in patients of the 1st group was significantly higher than in comparison group ($p < 0.001$) and correlated with the level of TC ($r = 0.46$; $p < 0.01$), HOMA ($r = 0.44$; $p < 0.01$). It was found that in patients with AH in combination with DM2, the level of circulating visfatin was higher than in patients with AH in 1,5 times ($p < 0.001$). Positive correlation of visfatin with TC ($r = 0.52$; $p < 0.05$), LDL cholesterol ($r = 0.46$; $p < 0.05$), IMC CCA ($r = 0.48$; $p < 0.001$), LVH ($r = 0.48$; $p < 0.001$) and negative correlation with HDL ($r = -0.58$; $p < 0.05$).

Conclusions. It was found that increased levels of visfatin in the blood serum is closely related to the nature of cardiovascular remodeling, atherogenic dyslipidemia and carbohydrate disorders, which is a adverse prognostic factor of cardiometabolic disorders in patients with AH and DM2.

Bagmut A.

CYTOKINES OF THE INTERLEUKIN-6 FAMILY AS REGULATORS OF HUMAN PHYSIOLOGICAL FUNCTIONS

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Introduction. To our time, there have been enough experiments that confirm the role of inflammation in the pathogenesis of various diseases. Even before the appearance of visible changes in the intima, there are signs of inflammation of the endothelium. This confirms the hypothesis of "reaction to damage". Cytokines of the family IL-6 (oncostatin M and interleukin-6) are key mediators of intercellular interactions, in particular, in the process of inflammation.

Materials and methods. Cytokines - a universal regulatory system that is capable of exhibiting biological activity both distantly and at the intercellular contact. At present, more than 200 substances belonging to the family of cytokines are known. Recent studies in animals have demonstrated that the cytokine oncostatin M takes part in the formation of cardiac hypertrophy and in the protection of cardiomyocytes from apoptosis. The development of hypertrophy is mainly caused through the STAT-path (signal transducer and activator of transcription), while anti-apoptotic activity is carried out through mitogen-activated protein kinase . The main manifestations of the biological activity of IL-6 in the body: the activation of the proliferation of antigen-activated B lymphocytes, Activation of proliferation of T-lymphocytes; Activation of acute phase response in the liver, serum amyloid A and fibrinogen, as well as pyrogenic action. In chronic inflammatory processes in animals, IL-6 enhances the development of pathology, exhibiting pro-inflammatory properties, which may be due to activation of T-lymphocyte function and synthesis antibodies. On models of acute inflammation, it exhibits immunoregulatory or anti-inflammatory properties, which is explained by its ability to translate inflammation from acute to chronic phase and the formation of mononuclear granulomas.

Results of research. Thus, IL-6 can switch the development of protective reactions from the initially developing inflammation and the reactions of innate immunity to the reactions of acquired immunity.

A number of studies have shown that hyperproduction of IL-6 in humans leads to pathology associated with the development of autoimmune and inflammatory processes. An increase in its synthesis was noted in myxoma of the heart, in patients with myeloma, rheumatoid arthritis.

Conclusions. With the development of systemic inflammation, cytokines exhibit a wide range of biological activity and ensure efficiency of the functioning of those body systems that are required at the moment. They carry out a link between the immune, nervous, endocrine, hematopoietic and other systems for their involvement in the regulation of a single protective reaction.

Berezhnoy H., Suhopara M.

RISK FACTORS IN CARDIOVASCULAR DISEASE AND INCIDENCE OF SUBCLINICAL ATHEROSCLEROSIS IN YOUNG MEN WITH HYPERTENSION

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Introduction. The purpose of our study was to investigate the prevalence of risk factors in cardiovascular disease, structural and functional characteristics of common carotid artery (CCA) and hemodynamic parameters during carrying out the exercise tolerance (stress) test in young patients with hypertension.

Materials and methods. The study included 56 male with hypertension, mean age 37.3 ± 3.5 years. The prevalence of risk factors was the following: smoking (35.7%), dyslipidemia (55.4%), abdominal obesity (21.4%), family history of early coronary heart disease (17.8%). The control group consisted of 20 healthy individuals. The examination included of standard investigations, ambulatory blood pressure monitoring, the exercise test, Doppler echocardiography, ultrasound dopplerography of brachiocephalic arteries.

Results of research. It was noted that in our patients compared to control group was observed an increase of the common carotid artery intima-media thickness (IMT) (0.84 ± 0.1 and 0.73 ± 0.1 mm; $p=0.01$, respectively) and IMT of internal carotid artery (ICA) (respectively 0.86 ± 0.73 and 0.4 ± 0.2 mm, $p=0.02$). Moreover, in patients with dyslipidemia CCA IMT was significantly increased in comparison with patients without lipid disorders ($p=0.02$) and control group ($p=0.01$). In patients with family history of early coronary heart disease the IMT bifurcation was significantly increased in comparison with another patients (14.4%, $p=0.02$) and the control group (16.3%, $p=0.01$). It should be noted that CCA IMT was not significantly different in the non-smokers and smokers, while in smokers ICA IMT and bifurcation IMT were higher by 32.6% ($p<0.05$) and by 23.1% ($p<0.05$), respectively, compared to non-smokers patients. Multivariate regression analysis showed a relationship between maximum performance and hemodynamic parameters during carrying out the stress test (blood pressure, heart rate [HR]) with the presence of subclinical atherosclerosis in the carotid arteries. It was established a relationship between the presence of atherosclerotic plaques in the carotid arteries and HRmax, HR resting one to two minutes after finishing stress test and growth systolic BP.

Conclusions. Thus, in young men with hypertension was found the wall thickening of CCA and ICA. Dyslipidemia influenced on the CCA IMT, family history - on the IMT bifurcation, and smoking - on the IMT bifurcation and ICA IMT. Parameters of stress test (exercise performance, BP and HR response to a load) were the predictors of subclinical carotid atherosclerosis in young men with hypertension.

Berihu Mosay

BRUGADA'S SYNDROME

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Introduction. 50% of all sudden cardiac death case are caused by Brugada's. It is a disorder which predisposes the sufferer to severe conditions such as VT & Vfib, and also cardiac arrest, It's an autosomal dominant syndrome, in which the SCNA5 gene that encodes for the Na⁺ i is dysfunctional, hence phase O and phase 1 action potential show irregularities.

It's classed into 3 types: 1,2,3; Type 1 is known to manifest before the age of 5, while type 2 and type 3 between the ages of 30 to 50, Type 2 and 3 are less lethal in comparison to type 1 because type 1 has no or minimal influx of Na⁺. Case studies report that 75% of patients with Brugada's are males, with only a few reports of female patients. Clinically; patients have either a known or unknown familial history of sudden cardiac death, symptoms of the disorder include; syncope, nightmares, fever and cardiac arrest, possible triggers are increased vagal tone with exercise, improper consumption of high doses of TCA's, α -agonists, β -blockers and cocaine.

Materials and methods. The most viable method of diagnosis is the 12 lead standard ECG. Na⁺ channel blocker channel test Genetic screening for SCNA5 gene, and particular focus on familial history of sudden cardiac death. CK-MB, Troponin level analysis. K⁺ and Ca⁺ level analysis. Echocardiography and MRI.

Results of research. ECG; Type 1; shows -T wave with cove shaped ST segment elevation, which gradually descends and a J wave is evident. Type 2; +T wave or biphasic T wave, with a saddleback ST segment, elevated >1mm and a prominent J wave.

Type 3; +T wave, with a saddleback ST segment and a minimal elevation of <1mm. Na⁺ Channel blocker Challenge test; infusion of procainamide or flecainide 10mg/kg for 10 mins causes about 30% widening of the QRS complex, with or without possible signs of incomplete RBBB, with a J wave whose amplitude > 2mm, which is specific for type 1 but may also be evident in types 2 and 3, these changes are predisposing factors to ventricular tachyarrhythmia's. Screening for SCNA5; 11-30% of people with Brugada's code for the mutation of the gene, most patients with Brugada's have a familial history of sudden cardiac death. Echocardiogram & MRI; are performed to exclude any structural anomalies which may cause similar symptoms like Brugada's. CK-MB & Troponin are not elevated hence they rule out any ischemic cause of arrhythmia.

K⁺ and Ca²⁺ levels are analysed in order to identify and exclude other disorders which predispose a patient to ventricular arrhythmia's.

Conclusions. Most patients with Brugada's often die in their sleep hence, most cases go undiagnosed, there is only effective medical treatment for Vtach, Vfib, cardiac arrest

and their prevention. 1stline treatment is the implantation of ICD for symptomatic patients, while asymptomatic patients are only monitored until otherwise.

Chibuzor V. Onuchukwu

UNDERSTANDING CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND DIABETES MELLITUS TYPE 2

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Introduction. In recent times there has been incidence of Diabetes mellitus and Chronic obstructive pulmonary disease occurring as comorbidities in the society and hence research was taken to analyze the reason and functional relationship. The exact prevalence of the association between diabetes and COPD varies between studies reported, however it is known that diabetes affects 2–37 % of patients with COPD, underlining the need to better understand the link between these two conditions. In this review, we evaluated the epidemiological aspects of the association between diabetes and COPD analyzing potential common issues in the pathological mechanisms underlying the single disease. The close association suggests the occurrence of similar pathophysiological process that leads to the development of overt disease in the presence of conditions such as systemic inflammation, oxidative stress, hypoxemia or hyperglycemia. It is important to also consider relationship to the influence of the pharmacological treatment used both for the patient affected by COPD and from that affected by diabetes. It is necessary to understand whether the treatment of COPD affect the clinical course of diabetes, and connection between treatment of DM affecting COPD

Materials and methods. According to research which was carried out by Lazarus et al, Prospective cohort study was done with a mean follow up of 20.9 years for COPD risk of Type 2 Diabetes. In another prospective study with a median follow up of 13 years, the authors concluded that the risk of developing diabetes is inversely associated with pulmonary function and the longitudinal associations between vital capacity (VC) and diabetes ($P = 0.001$) and log glucose ($P = 0.036$) were significant after adjustments for confounders. The number including 1,050 men (with no self-reported DM) included in the final analysis mean age: 41.4 years mean BMI: 25.6 kg/m².

Results of research. The result showed that 207 patients developed T2D with the incidence of 2.2 %. FEV1 and FVC were negatively associated with T2D. In patients with BMI < 25 kg/m² the lowest quartile of FVC and FEV1 had OR of 2.15 (95 % CI 1.02–4.57) and 2.19 (95 % CI 1.09–4.42) for incident T2D. Reduced FVC, FEV1 and MMEF were associated with greater fasting insulin and fasting insulin resistance after logistic regression analysis. Unexpectedly, in this study COPD patients had an increased prevalence of both cardiovascular diseases and T2D and a very low prevalence of the metabolic syndrome, suggesting that COPD is a real risk factor for cardiovascular diseases and diabetes.

Conclusions. This shows a definite relationship between two complex conditions such as COPD and DM is expressed at different levels: epidemiological, on possible

common pathogenic mechanisms and the impact that the treatments used for individual conditions may have on the association itself.

The complexity of this association also stems from the evidence that COPD can be considered a risk factor for the development of DM, as pointed out by several epidemiological studies that have used national and international databases. Hence adequate measures must be taken to reduce the lethal outcome of this pathological process causing a menace in the society.

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THE ROLE OF ARTERIAL HYPERTENSION IN THE DEVELOPMENT OF VASCULAR DEMENTIA

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Introduction. Vascular dementia (VD) is one of the most pressing problems of modern clinical medicine. The importance of this issue, primarily caused by a significant increase in the number of persons of elderly and senile age, among whom the prevalence of dementia is particularly high.

Materials and methods. 3735 persons aged 45 to 50 years participated in the study, which shows the relationship between the level of blood pressure (BP) in middle age and cognitive function in later life for three decades.

Results of research. It was found that high systolic blood pressure in mid-life is directly correlated with the risk of cognitive dysfunction in the elderly. Increase in systolic blood pressure per 10 mm of mercury. Article increased risk for mild cognitive impairment 7% severe - 9%. Upon further analysis revealed that the risk of dementia was higher in patients untreated. This is due to the nature of the specific lesions of brain vessels in arterial hypertension (AH). Since the AH is steadily progressing lesions matter of the brain associated with uncontrolled increase in blood pressure, a deficiency of blood circulation in brain vessels. Pathomorphological changes in the blood vessels of the brain in hypertension as plasma and hemorrhagic infiltration and necrosis of the vascular wall with further thinning, adaptive thickening of the walls of extracerebral vessels define the term "hypertensive angioencephalopathy". The leading role in the formation of Dementia in hypertensive encephalopathy plays lesions of the white matter of the brain and basal ganglia, which leads to disruption of communication departments frontal and subcortical structures (cortico-subcortical phenomenon of separation).

Diffuse changes of brain substance thus usually combined with focal lesions in the form of lacunar infarcts - small cavities ranging in size from 0.1 to 1.0 cm, produced in the cells of cerebral ischemia. Possible development or asymptomatic lacunar infarct, or the formation of transient ischemic attack, stroke, defined localization and volume of fire ischemia. Formation of multiple brain damage - lacunar state - worsens the course of hypertensive encephalopathy and ultimately leads to the formation of diabetes. Also important are large solitary cerebral infarction that developed against the background of hypertension

Conclusions. Thus, the experiments demonstrated the role of arterial hypertension as a major risk factor for vascular dementia. Therefore, timely normalization of blood pressure is able to inhibit the progression of vascular dementia and prevent recurrence of acute cerebrovascular accident.

El Hayek

A SYSTEMATIC REVIEW OF DAPAGLIFLOZIN TREATMENT FOR PATIENTS WITH TYPE 2 DIABETES MELLITUS

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Introduction. New class of drugs for treatment type 2 diabetes mellitus (T2DM) are sodium-glucose cotransporter 2 (SGLT2) inhibitors. These drug are an antihyperglycaemic agents with an insulin-independent mode of action. One of the SGLT2 inhibitors class that used in Ukraine for treatment patients with T2DM is a Dapagliflozin. We try to summarize current evidence from different clinical trials that assess the clinical efficacy and safety of dapagliflozin.

Materials and methods. We search medline, that used patients with T2DM. Clinical development program included 3 clinical trials evaluating safety and efficacy. All patients used dapagliflozin in dosage 2.5-10 mg daily, during 6 weeks. We investigated effectiveness of dapagliflozin to reduction of haemoglobin A1c (HbA1c), body weight reductions, prevention of hypoglycaemia.

Results of research. In all studies we noticed that using dapagliflozin 10 mg for 12 weeks was equally effective in reducing HbA1c compare with metformin (-1.00%; 95% CI -2.04 to 0.04). In one studies was determined that in patients treated with dapagliflozin, was associated with a significant weight loss of -5.07 kg (95% CI -6.21 to -3.93) Based on results from 3 studies, was determined that dapagliflozin don't increase incidence of hypoglycaemia compared with other antidiabetic agents (9; 95% CI 0.18 to 1.39). Genital mycotic infection and urinary tract infection where the most common side effects.

Conclusions. Dapagloflozin can be used in patients with T2DM. Except effectiveness in reduction of level of HbA1C it provides additional clinical benefits including body weight loss and reduction of blood pressure. Using dapagliflozin does not increase risk for hypoglycaemia. but is associated with increased incidence of mild to moderate urinary and genital tract infections.

Frolov Y.

THE SEQUENCE OF CARDIAC CONDUCTION SYSTEM AND MYOCARDIAL DAMAGE IN CASE OF ENTEROVIRAL MYOCARDITIS

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Introduction. During enteroviral myocarditis (EVM) cardiac conduction system (CCS) and myocardium are predominantly damaged. Main clinical symptoms of EVM are different kinds of arrhythmias. But due to the specifics of the disease and morphological features of different parts of the heart (different wall thickness, vascularization, levels of metabolism and oxygen consumption, location of key parts of CCS in the area of the right atrium) the question arises – is there a sequence in damage of different parts of CCS and myocardium according to the duration of the disease?

Materials and methods. In 81 patients EVM was diagnosed, which was confirmed by ELISA with the detection of specific antibodies to enteroviruses (EVCE). 21 patient (26%) was sick less than 0,5 year (1 group), 27 patients (33%) were sick from 0,5 to 2,5 years (2 group), 33 patients (41%) were sick from 2,5 to 4,5 years (3 group). In patients the sequence in appearance of different kinds of arrhythmias during the course of the disease according to the case histories data was explored and the levels of specific Ig M and Ig G to EVCE at the moment of the research conduction were determined. The dependence between the course of the disease, Ig levels and sequence of damage of different parts of CCS and myocardium was studied.

Results of research. In 18 of 21 patients in group 1 only the level of Ig M was increased ($56,03 \pm 1,28$ ME/ml), which indicates acute EVM, in 3 – both markers. Were determined: premature atrial contraction – in 8 patients, atrial fibrillation – in 7 (5 – paroxysmal, 2 – permanent form), paroxysmal supraventricular tachycardia – in 3 patients, pacemaker migration – in 2, atrial flutter – in 1. In the second group in 11 patients repeated recurrence was noted (Ig M - $32,09 \pm 1,88$ ME/ml, Ig G - $28,11 \pm 1,76$ ME/ml). Firstly diagnosed – premature LV contraction – 3, premature RV contraction - 3, paroxysmal ventricular tachycardia – 2. In 16 patients EVM passed into a chronic form. (Ig G - $23,92 \pm 1,01$ ME/ml). In this group firstly in 5 cases premature LV contraction was detected, in 4 – RV. It is important to notice that different arrhythmias appeared in group 2 more frequently than in group 1; among 27 patients in 17 the combination of 2 kinds of rhythm disorders was detected. In group 3 in 14 patients repeated recurrence was diagnosed (Ig M $74,08 \pm 1,26$ ME/ml, Ig G $19,74 \pm 1,96$ ME/ml), chronic EVM – in 19 (Ig G $34,07 \pm 2,17$ ME/ml). In this group all the symptoms of group 2 were present, but their frequency was higher. Firstly diagnosed: polytope premature ventricular contraction – in 6 patients, ventricular bigeminy – in 5, parasystole – in 3. Among 33 patients in 25 there was a combination of 2, in 14 – 3 kinds of heart rhythm disorders with consistent addition of those, which point to the damage of CCS in the ventricular area.

Conclusions. It is noteworthy that CCS is damaged consistently from SA and AV nodules to Bundle of His and Purkinje fibers, which testifies about high viral tropism exactly to specialized cardiomyocytes of CCS, which concentrate mostly in SA and

AV nodules in the right atrium area. It is confirmed by the symptoms – SA, AV nodules and right atrium are injured already on the first stages. Subsequently ventricular CS is involved in the process, what is more, each new recurrence is tolerated by CCS less and less effectively, according to the evaluation of Ig M during the disease. Ig G level in its isolated elevation also increases with time, which points to progressive CCS injury during the chronization as well. The symptoms, which develop gradually, also prove it. The myocardium itself, in spite of the intensity of its vascularization and metabolism, is injured later after EVM manifestation.

Harkavenko K.

THE ROLE OF ARTERIAL HYPERTENSION IN THE DEVELOPMENT OF VASCULAR DEMENTIA

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Introduction. The main noncommunicable diseases (NCDS) are 4 groups of diseases – cardiovascular, cancer, chronic lung disease and diabetes. Cardiovascular diseases (CVD) are in the top of causing disability and mortality in the world. According to the research, every year from a heart attack of a myocardium and other diseases of the cardiovascular system dies 17 million people.

Materials and methods. Cardiovascular morbidity was studied according to the generally accepted indicators: incidence (primary disease incidence) per 10,000 population, prevalence per 10000 population, structure of incidence of cardiovascular disease, the structure of the prevalence of cardiovascular disease. We used such methods as qualimetrics, retrospective, sociological, statistical, mathematical, structural-logical analysis.

Results of research. Researches of indicators of cardiovascular morbidity and risk factors, that cause them, among inhabitants of Poltava region showed:

- the constant growth of the CVD's prevalence: 6347,5 on 10 thousand population in 2003 to 7958,7 on 10 thousand population in 2012.
- reducing of the primary CVD's incidence: 669,1 on 10 thousand population in 2003 to 495 on 10 thousand population in 2012.
- the structure of the prevalence and incidence of CVD remains constant throughout the whole time;
- analysis of index of causing disability in the working population shows that disability due to cerebrovascular events takes the first place, the second place is taken by ischemic heart disease, and the third and fourth places are taken by hypertension and diseases of blood vessels.
- structural analysis of nosological forms of disability in the working-age population due to cardiovascular diseases in the period of 2009-2013 shows that the most common is disability due to cerebrovascular events (48,8%-52,43%), in second position is disability due to coronary heart disease (26,05%-31,07%).

The level of risk factors among the residents of Poltava region showed that the level of consumption of fruit and meat is increase. At that time, such important for the cardiovascular system product as fish remains at a low level of consumption.

Conclusions. Most CVD can be prevented by taking steps in connection with such risk factors as tobacco using, unhealthy diet and obesity, physical inactivity, high blood pressure, diabetes and hightened lipids.

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VALUE OF HEART RATE VARIABILITY ON THE COURSE OF HEART FAILURE IN PATIENTS WITH ARTERIAL HYPERTENSION

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Introduction. Heart rate (HR) and heart rate variability (HRV) well-known factors associated with cardiovascular and all-cause mortality, but their role in the chronic heart failure course (CHF) remains somewhat problematic.

The aim of this study is to investigate HRV indexes by the frequency analysis and evaluate the prognostic value of heart rate and HRV on the course CHF in patients with arterial hypertension (AH)."

Materials and methods. The study group consisted of 184 patients with CHF (110 males, 74 females, mean age 58.4 ± 9.7 years) and arterial hypertension of 2-3 degrees (mean systolic and diastolic blood pressure, respectively: 164.4 ± 8.6 mm Hg; 98.3 ± 7.4 mm Hg). All patients had II-III NYHA functional class, EF >40%, body mass index (BMI) = 28.2 ± 2.0 kg / m² and received comparable therapy. Respectively were allocated 2 groups of patients depending on the initial signs and NYHA functional class (FC) of CHF: Group 1 - II FC (102 patients), Group 2 - III FC (82 patients). All patients every 3 months for 1 year were performed in a 5-minute interval electrocardiogram (ECG) recording during the morning time slot from 08.00 till 09.00 on an empty stomach. Standard spectral analysis parameters of heart rate variability (HRV) were assessed and analyzed: high-frequency component (HF), a low-frequency component (LF), their ratio (L/H) and the total spectral power (TP). The control group consisted of 20 gender- and age-matched healthy subjects.

Results of research. The average heart rate was at the time of inclusion in groups 1 and 2, respectively were: 82.2 ± 4.8 and 88.2 ± 6.4 in 1 min (control 60.2 ± 2.4 ; $p < 0,05$). When evaluating the reduction of HRV indexes set of spectral analysis, more pronounced in patients 2 groups. In the both group of patients were found decreasing in TP (respectively: $1286.4 \pm 78.6\text{ms}^2$ ($p > 0,05$); $967.8 \pm 53.5\text{ms}^2$ ($p < 0,05$); in control group $1682.8 \pm 83.2\text{ms}^2$); significant reduction in HF (respectively: $342.7 \pm 38.9\text{ms}^2$ ($p < 0,05$); $289.5 \pm 37.5\text{ms}^2$ ($p < 0,05$), of $486.2 \pm 41,4\text{ms}^2$) and LF (respectively: $219.3 \pm 22,4\text{ms}^2$ ($p < 0,05$); $182.3 \pm 20,3\text{ms}^2$ ($p < 0,05$); control of $295.5 \pm 18.2 \text{ms}^2$). During the follow-up period in 1 and 2 groups patients increased heart rate associated with the worst spectral parameters of HRV. A negative correlation between heart rate and HF [$r = -0.48$; CI 95%; 0.84-1.68, $p = 0.042$] LF [$r = -52$; CI 95%; 1.57-1.83; $p = 0.034$].

By the end of the observation period while preserves increased heart rate functional class of CHF worsened in 23% and 36% of patients 1 and 2 groups, respectively.

Conclusions. Increased heart rate in patients with hypertension and chronic heart failure is accompanied by a deterioration of spectral parameters of HRV, which has a negative predictive value for heart failure worsens, and determines the need for active treatment.

Iliukha S.

CLINICAL COURSE OF ASTHMA AND CO-MORBID PATHOLOGY IN PATIENTS WITH DIFFERENT TYPES OF OBESITY

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Introduction. During the last twenty years the prevalence of asthma, obesity, and diabetes mellitus type 2 is growing. Therefore it is important to research the problem of co-morbidity. Our aim was studying clinical and laboratory features in patients with co-morbid pathology, and their effect on external respiration function (ERF).

Materials and methods. 78 patients with non-controlled severe-course asthma and diabetes mellitus type 2 were studied. The patients were divided into 2 groups, with android and gynoid obesity types, according to anthropometric signs.

Laboratory and instrumental investigations were performed: HbA1c %, glucose, triglycerides (TG), cholesterol (CHOL), low density lipoproteins (LDL), high density lipoproteins (HDL), HOMA-IR, ERF, Forced vital capacity (FVC) and forced expiratory volume at timed intervals of 0.5, 1.0 (FEV1) condition. Also, the control level of asthma symptoms was considered using questionnaires ACQ-5."

Results of research. It was shown that the android type patients were older and had longer duration of a disease versus the patients with gynoid type obesity. The increase of abdominal fat depots in patients with android type obesity was associated with more pronounced changes in carbohydrate-fat metabolism parameters, which was manifested through elevated glucose, triglycerides, LDL serum values and decreased HDL concentrations. HbA1c and HOMA-IR index were reliably increased. Assessment of external respiration function has shown that FEV1 %, FVC % in this groups were different as well. In patients with android obesity type, FEV1 and FVC parameters were reliably lower than in the group with gynoid obesity type. Higher degree of ventilation disorders in individuals with high waist circumference /hip width (WC/HW) index can be due to fatty tissue central topography type. Correlation analysis of the values of parameters registered during anthropometric examination of patients has shown that, in general, anthropometric indexes are reliably increased in the age-specific sample.

Conclusions. In accordance with our results it was shown various carbohydrate metabolism disorders, dependence of insulin resistance on obesity type, hormonal balance, and ERF decrease.

Kadykova O.

ASSOCIATION OF THE OLR1 GENE WITH LIPID METABOLISM IN PATIENTS WITH CORONARY ARTERY DISEASE AND OBESITY

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Introduction. The research objective is to define the association of the OLR1 gene with lipid metabolism in patients with coronary artery disease and obesity.

Materials and methods. Design and method. The study included 222 subjects (115 who had standard weight) with coronary artery disease and obesity. The control group included 35 apparently healthy people. The groups were contrasted according to age and sex. Patients with severe co-morbidity of the respiratory and digestive organs, kidneys, and patients with oncology diseases were not enrolled in the clinical trial. Blood was drawn in the morning after a 12-hour overnight fast and frozen plasma aliquots were stored at -80°C until further analysis. Fasted samples were taken on at least 2 separate days and averaged to calculate baseline lipid levels. Plasma Total Cholesterol, Triglycerides, High-density lipoprotein (HDL)-cholesterol, and Low-density lipoprotein (LDL)-cholesterol levels were determined using conventional methods.

The statistical analysis was performed by using STATA software (release 8.0; STATA Corp., College Station, TX). A value of $p \leq 0.05$ was considered statistically significant.

Results of research. Results. The level of Total Cholesterol in carriers of allele C of the OLR1 gene amounted to 246 ± 50 mg/dl, Triglycerides – 142 ± 21 mg/dl, HDL-cholesterol – 25 ± 3 mg/dL, LDL-cholesterol – 135 ± 33 mg/dl. Genotype A/C of the OLR1 gene characterized by the following indicators: Total Cholesterol level was 201 ± 12 mg/dl, Triglycerides – 146 ± 59 mg/dl, HDL-cholesterol – 51 ± 3 mg/dL, LDL-cholesterol – 127 ± 6 mg/dl. Patients with genotype A/A of the OLR1 gene Total Cholesterol level of significance was 235 ± 38 mg/dl, Triglycerides – 151 ± 19 mg/dl, HDL-cholesterol – 25 ± 2 mg/dL, LDL-cholesterol – 173 ± 33 mg/dl. In patients with coronary artery disease and obesity probable differences in lipid metabolism depending on the OLR1 gene polymorphism genotypes was not found ($p > 0,05$).

Conclusions. Conclusions. In the present study, we observed that lipid metabolism not related to any of the OLR1 gene polymorphism genotypes in patients examined.

Kharoubi R., Sameja M.

EFFECTS OF SMOKING ON ATHEROSCLEROSIS

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Introduction. Atherosclerosis is an abnormal condition of deposition of lipids in the arteries which leads to a serious problem – coronary artery disease which takes one of first places among all death causes. In Tanzania and Lebanon amount of smokers has doubled starting from the age of 14, this has influenced in the increase of

atherosclerotic cases as well as the risk, smoking has been observed in increase of inflammatory markers.

Materials and methods. Study was performed in a group of 30 people 18-30 years of age, comparable by their gender and health condition 15 from were from Lebanon range of cigarette smoking ranged from 3 to 1 pack a day and 15 from Tanzania (different races) levels of atherosclerotic coefficient was determined in each and levels of inflammatory markers was seen too. In a year time with a therapeutic management and counseling the levels of cigarette smoking reduced from 3pack to 2packs and 2packs-1pack daily.

Results of research. The levels of atherosclerotic coefficient factor was decreased by 10%, CRP by 15% ,IL6 by 17% and TNF by 19% as an average for the patients

Conclusions. The reduction of the no of cigarettes smoking regardless the race can help in the risk of developing atherosclerosis and it is reversible. Patients should be adviced and encouraged, as well as counseled in smoking and made aware its effects on there body. life style contributes a lot on your health. campaigns on education in smoking should be well advertised and be done worldwide for free.

Khatib Y.

CARDIAC CATHETERIZATION

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Introduction. Cardiac catheterization is a procedure used to diagnose and treat cardiovascular diseases. Cardiac catheterization involves insertion of fine-bore tubes into the heart through cannulae inserted into a peripheral artery or vein. The procedure is performed in a “cath lab”. It plays a significant role in the developed world because Coronary artery disease (CAD) is the most common cause of mortality in this era. There is a small risk of complication that has persisted despite advances in technology. Patients without cardiac symptoms or high-risk markers for a heart problem should not have a coronary catheterization to screen for problems. Indications for cardiac catheterization include heart attack (STEMI, Non-STEMI, Unstable Angina), persistent chest pain despite optimal medical therapy, Prinzmetal angina, survival of sudden cardiac death or dangerous cardiac arrhythmia etc.. Procedures include stenting and stretching (balloon dilatation) of arteries and valves. There are different kinds of stents are available now like Dual Therapy Stent ,(DTS) Bioresorbable Vascular Scaffold ,(BVS) Bio-engineered Stent, Drug Eluting Stent (DES), Bare Metal Stent (BMS). Procedures are commonly performed via the femoral vessels. However, the radial artery approach has the best safety record and is becoming increasingly popular.

Materials and methods. General physical examination is done to check the patients condition. (checking blood pressure , ALENS test , ECG , echocardiogram , blood test, urine test) During a cardiac catheterization, the cardiologist inserts a small, hollow tube (catheter), into an artery or vein, and then guides it into the heart using x-ray. The cardiologist injects contrast (x-ray dye) through the catheter to outline the arteries and

to show any blockages or narrowings that may exist. The results of these tests will assist your doctor in making the diagnosis of CAD

Results of research. After the procedure of cardiac catheterization patient can leave the hospital in a week after a period of rest and observation. Most people feel fine in a day or so after having the procedure, although some patients may feel a bit tired afterwards and the wound site is likely to be tender for up to a week. Any bruising may last for several weeks. The patient should be advised to avoid certain activities – such as bathing, driving and lifting heavy objects – for a week after the procedure. While the patient is recovering, it's important to look out for signs of possible complications. The patient should seek immediate medical attention if swelling at the site of the wound gets worse, or if patient experience excessive bleeding or circulation problems in there limbs

Conclusions. Cardiac catheterization procedure can help us to determine the severity of the heart condition and become an effective treatment fro patients with CAD as well. It decreases the mortality rate for 37 % (AHA 2016).

Khromykh A., Lavryniv A.

VIOLATION OF URIC ACID METABOLISM AS A MANIFESTATION OF METABOLIC SYNDROME IN PATIENTS WITH PUBERTY DISPITUITARY

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Introduction. Obesity in children and adolescents is one of the serious problems of modern health care. Almost all countries have steadily increasing number of children with obesity. A similar prevalence of obesity among children is observed in Vinnitsa region. Thus, during the years 2012-2016 almost doubling the number of children with this disease, especially teenagers. Obesity is a component part of the classical concept of metabolic syndrome. For now, no uniform criteria for this syndrome. Children with symptoms of metabolic syndrome no change in uric acid are most believe. So, this associated with partial description metabolic syndrome.

Materials and methods. We examined 14 children (10 boys, 4 girls) aged 16-18 years suffering from puberty dyspituitarism who were in Vinnitsa Clinical Endocrinology tertiary center. All adolescents conducted clinical, anthropometric and hormonal studies. Patients wake examined by protocols provide specialized care for children with endocrine disorders №254 from 27.04.2006 and application to protocols №55 (2009). All children conducted by the definition of height, weight, BMI was determined (the valuation was performed using percentile schedules) measured blood pressure. From laboratory examination for all children conducted oral glucose tolerance test, uric acid level. Hormonal study included determining the level of insulin and cortisol. Also to all teens calculated HOMA index.

Results of research. The results of the study found that adolescents in all 14 (100%) had obesity – BMI > 97 percentile and stretch marks. High blood pressure > 90 percentile respectively sex and age and stature percentile recommendations by the

European Society of Children's Endocrinology (ESPE, 2007) was found in 13 adolescents (92.8%). High HOMA index was recorded at 4 boys (28.5%), but carbohydrate metabolism is not installed. However, elevated levels of uric acid was detected in 11 adolescents (78.5%) of them, 9 boys (64.2%), uric acid levels were significantly elevated (369.1 ± 11.3 mg / dL) and in 2 (14.3%) slightly compared to the reference rate for 16-18 years (210-350 mmol/ l).

Conclusions. 1. Patients with puberty dyspituitarismus have classic signs of metabolic syndrome: obesity, hypertension, high HOMA index.

2. The level of uric acid, a component of metabolic syndrome, increased in the vast number of patients with pubertal dyspituitarismus.

3. Complete evaluation of patients with signs of impaired metabolism will help get closer to a true and correct treatment of the underlying disease selected.

Klymenko O., Danilchenko D., Lobova V., Gvalt V., Zlatkina V.

GLYCEMIC & ADIPOCYTOKINE VASPIN LEVELS IN YOUNG PATIENTS WITH ARTERIAL HYPERTENSION AND OBESITY

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Introduction. Patients with essential hypertension very often suffer from overweight and obesity (OB). Visceral adipose tissue synthesizes a huge amount of hormonal active substances that determine violations of carbohydrate and lipid metabolism with the development of diabetes mellitus, hypertension and other pathologies. A positive correlation between hypertension and OC was demonstrated, even in young men and children and in all ethnic groups, which was confirmed by genetic and experimental clinical studies. Therefore, timely correction of metabolic abnormalities and blood pressure levels in this category of patients, since the earliest prevention of complications is more effective.

Materials and methods. With the purpose of determination the glycemic status and serum vaspin levels, depending on the presence of OB in a group of young patients with arterial hypertension (AH) were investigated 72 young (age from 18 to 45 years) patients with AH. All patients were divided into 3 groups. The first group with AH included 28 patients without OB ($BMI < 25$ kg / m²). The second group consisted of 32 patients with overweight and obese patients ($BMI \geq 25.0$ kg / m²). The control (third) group consisted of 12 practically healthy persons.

Results of research. The study showed that in young patients with AH, the following indicators significantly increase compared to the group of healthy individuals: SBP values by 13% ($p < 0.001$), DBP values by 9% ($p < 0.05$); The HOMA-IR value is almost 46%, the concentration of vaspin is 24% ($p < 0.05$). In the group of patients with AH and OB, compared with healthy individuals, BMI significantly changed by 27%, waist circumference by 31%, SBP and DBP values by 19.3 and 12%, respectively ($p < 0.05$), HOMA index increased 2.8 times and vaspin concentration 2.2 times ($p < 0.001$).

Conclusions. With the progression of obesity, insulin resistance and arterial hypertension in young patients there is an increase of proinflammatory adipokin vaspin . Most likely in obese patients there is an activation of the pro-inflammatory process and at the same time fatty tissue intensively produces this cytokine.

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MODERN METHODS OF UROLITHIASIS DIAGNOSIS

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Introduction. One of the most famous diseases of the excretory system is urolithiasis, a disease that manifests itself in the formation of concrements in the organs of the urinary system and has its place, as one of the most common diseases. Among the symptoms of this disease should be noted mainly: hematuria, severe cutting pain in the back or in the side (on the one hand), dysuria. Mostly urolithiasis is diagnosed in people aged 40-60 years.

Materials and methods. Due to the increase in morbidity, the severity of complications, the propensity to relapse, the predominant defeat of people of the most able-bodied age raise questions of diagnosis and treatment of nephrolithiasis in a number of critical problems in the clinic of internal diseases. Among the modern diagnostic methods it should be noted: ultrasonic, X-ray, radionuclide, magnetic resonance. These methods provide information on the status of the excretory system; To uncover developmental anomalies, to differentially diagnose with other diseases and to control treatment. Also in our time, remote and contact lithotripsy is widely used in the clinic of internal diseases, there is the question of the formation of a diagnostic algorithm that will allow choosing the most acceptable method of removing the calculus.

Results of research. Complete and timely diagnosis of urolithiasis avoids complications such as: pyelonephritis, kidney failure, cystitis and so on. Ultrasound diagnostics plays an important role in locating a stone, its location, dimensions, and subsequent complications. The use of dopplerometry makes it possible to judge violations of uro- and hemodynamics. The priority of this method is its non-invasiveness, the absence of radiation and the development of allergies. The use of ultrasound is indispensable for evaluation of the postoperative period.

Conclusions. Urolithiasis is detected on the basis of the symptoms that have been identified in this patient, medical examination and the results of the survey methods. Thanks to the introduction of modern diagnostic methods, mortality in urolithiasis has significantly decreased over the last few years. Thus, modern methods of diagnosing urolithiasis in 50 people out of 65 of cases allow at an early stage to determine pathology, take all possible measures for treatment and reduce the risk of complications associated with the excretory system.

Kolesnik A.

TOPICAL QUESTIONS OF DIAGNOSTICS OF RHEUMATOID ARTHRITIS

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Introduction. Rheumatoid arthritis (RA) is the most frequent inflammatory joint disease, whose prevalence in the population is about 1%, and the economic losses from RA for society are comparable to coronary heart disease. After 20 years from the onset of the disease, approximately 90% of patients lose their ability to work to a greater or lesser degree, and a third become completely disabled. The increase in mortality is largely due to the increase in the frequency of concomitant diseases (infection, cardiovascular and renal damage, osteoporotic fractures, etc.), the development of which is pathogenetically associated with poorly controlled rheumatoid inflammation and immunity defects.

Results of research. Why is the "early" diagnosis of rheumatoid arthritis necessary? There is evidence that the "subclinical" current immunopathological process develops long before the appearance of clinically obvious signs of arthritis. Indeed, according to the biopsy of the synovial membrane of the joints, signs of chronic synovitis are detected already at the very beginning of the disease, even in clinically unaffected joints. In two-thirds of patients, structural changes (erosions) of the joints are detected within the first two years from the time of the onset of the disease. To date, there is no test or indication that would allow unequivocally to confirm or exclude the diagnosis of RA. Diagnosis of the disease is based on the identification of a set of the most typical manifestations. Diagnostic criteria: 1. Morning stiffness for 1 hour and longer, for more than 6 weeks. 2. Swelling of 3 or more joints for at least 6 weeks. 3. Arthritis of the joints of the hand for at least 6 weeks. 4. Symmetric arthritis for at least 6 weeks. 5. Rheumatoid nodules. Subcutaneous nodules on protruding sites of bones, extensor surfaces, or around the joints, identified by a physician. 6. RF in the serum, detected by any method, in which a positive result in the control group of healthy individuals <5%. 7. Typical radiographic changes. The diagnosis of RA is considered reliable if there are at least 4 criteria. In 90% of patients with difficult to diagnose RA, in cases where RF is not detected, citrulline antibodies are detected in the blood. Evaluation of laboratory indicators of inflammation - ESR, C-reactive protein (CRP), protein fractions - is of secondary importance in the diagnostic process, and the absence of their changes should not interfere with the diagnosis. In the first 2-3 months, the values of these parameters in no less than 50% of patients do not exceed the limits of normal values. In addition, changes in acute phase parameters are completely nonspecific for RA. Much more important is the detection in the blood of the RF in diagnostic titles. It is also known that patients who are positive for the Russian Federation have a worse prognosis for the course of the disease. Also, a new immunological test, the detection of antibodies to cyclic citrullinated peptide (anti-CCP-AT), has recently been introduced into clinical practice, which significantly increased the effectiveness of laboratory diagnosis of RA in the early stages. The presence of anti-CCP-AT at the time of diagnosis establishes a more aggressive course of the disease and more pronounced radiologic progression, despite ongoing therapy. Radiography of the joints

is the most accessible, but has a low diagnostic value in the early stages of the disease research method. The object of X-ray examination should be brushes and feet, regardless of the clinical expression of their interest. More accessible for clinical practice is the method of Doppler ultrasound examination of joints, which, like MRI, has a greater sensitivity compared to radiography in detecting changes in joints characteristic for RA.

Conclusions. Thus, the proposed diagnostic algorithm of the RA supplements the generally accepted diagnostic criteria and is oriented to the needs of modern rheumatological practice - as early as possible identifying patients and conducting differential diagnosis with non-rheumatoid arthropathies in order to timely assign adequate basal therapy.

Koliubaieva O.

DYSFUNCTION OF ADIPONECTIN IN PATIENTS WITH ARTERIAL HYPERTENSION AND OBESITY

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Introduction. An important function of adipose tissue is the production of adipokines - specific proteins that affect different metabolic processes. One of the main representatives is adiponectin, which regulates energy homeostasis and has anti-inflammatory and anti-atherogenic effects. The aim of our study was to compare the level of activity of adiponectin in blood plasma in patients with arterial hypertension (AH) and obesity and patients with isolated course of arterial hypertension, to identify the interrelation and to suggest possible complications. Introduction: An important function of adipose tissue is the production of adipokines - specific proteins that affect different metabolic processes. One of the main representatives is adiponectin, which regulates energy homeostasis and has anti-inflammatory and anti-atherogenic effects. The aim of our study was to compare the level of activity of adiponectin in blood plasma in patients with arterial hypertension (AH) and obesity and patients with isolated course of arterial hypertension, to identify the interrelation and to suggest possible complications.

Materials and methods. 58 patients (24 men and 34 women) aged 30 to 70 years with arterial hypertension were examined. Patients were divided into 2 groups, comparable by sex, age and severity of the condition: 32 people with a combination of AH and obesity made up the first group of the study, 26 people with normal body weight and AH formed the second control group.

Results of research. Patients of the 1st group had such hemodynamic indices: SBP = 162.32 ± 2.95 mmHg; DBP = 94.63 ± 1.57 mmHg, the heart rate = 84.03 ± 1.35 beats per minute and BMI = 33, 65 kg / m². Patients of the control group had: SBP = 151.25 ± 1.87 mmHg; DBP = 87.50 ± 3.34 mmHg., Heart rate = 77.50 ± 2.78 beats per minute and BMI = 22.95 ± 0.33 kg / m². Analyzing the level of adiponectin in blood plasma, there was a tendency of a decrease of its concentration (5.65 ± 0.24 µg / ml) in patients with a combination of AH and obesity in comparison with the control group, where the

cytokine level was $9.42 \pm 0,95 \mu\text{g} / \text{ml}$. There is an inverse relationship between the level of adiponectin in plasma and BMI, which means a decrease of the glycoprotein in the development of obesity, that is, the more adipocytes, the less they produce adiponectin. This phenomenon is explained by inhibitory effects on cytokine production by tumor necrosis factor and glucocorticoids. Hypoadiponectinemia manifests itself as a vasoconstrictor effect, because in the norm, adiponectin stimulates the production of the vasodilating factor NO, consequently low adiponectin levels in patients of first group indicate a high risk for the development of atherosclerosis and coronary artery disease. Another property of adiponectin is the activation of insulin in skeletal muscles and liver, so decrease of adiponectin in blood plasma leads to the formation of insulin resistance and the type 2 diabetes.

Conclusions. There is a decrease of adiponectin levels in the blood plasma and an increase of SBP, DBP, heart rate in patients with hypertension and obesity, in comparison with patients with arterial hypertension with its isolated course, which causes a greater risk of complications in the form of cardiovascular pathologies, systemic inflammatory reactions and type 2 diabetes.

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MEIBOMIAN GLAND DYSFUNCTION IN PATIENTS WITH ASYMPTOMATIC DIABETIC POLYNEUROPATHY

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Introduction. Purpose: To improve the efficiency of diagnosis of meibomian gland dysfunction (MGD) in patients with asymptomatic diabetic polyneuropathy.

Materials and methods. We recruited 41 patients (82 eyes) with asymptomatic-A diabetic polyneuropathy (N1A) aged 46-61 years (male - 56.1%, female - 43.9%) and 36 patients (72 eyes) with asymptomatic-B diabetic polyneuropathy (N1B) aged 50-69 years (male - 41,7%, female - 58.3%). The control group - 97 persons (194 eyes) (male - 47,4%, female - 52.6%) without diabetes in the same age category. Each participant underwent standard ophthalmological examination, the Schirmer's test before and 2 hours after compression the eyelids, the Norn's test, determination of the ocular protection index (OPI), performance of squeezing secretions (Korb and Blackie), IVAD test, contact meibography with green filter.

Classification of The International WorkShop by MGD (2011) was used to evaluate the severity of meibomian glands dysfunction.

Results of research. The Schirmer's test in patients with N1A and N1B (9,41 mm and 9,14 mm) was reduced in comparison with the same indicator in the control group (12,82) ($p < 0.001$), and significantly differed from the norm by 1,5 and 1,6 times.

The Norn's test in patients with N1A and N1B (7,35 and 7,05) was the same for both groups and was in 1,3 times less than the same indicator in patients without diabetes (9,48 s) ($p < 0.001$).

According to mamografia in patients with N1A and N1B the area in which there is dysfunction of the meibomian glands corresponds to class 1 and 2. Secretory capacity

of the glands in N1A and N1B was 1 point and differed significantly from that in patients of control group (0 points). In the group of patients with N1A and N1B stages were observed the initial changes in the quality of secret of $4.56 \pm 0,41$ and $4.94 \pm 0,48$. In the control group such changes practically was not ($0,52 \pm 0,14$).

Conclusions. 1 In patients with asymptomatic diabetic polyneuropathy was observed clinical changes in the structure and functional state of the meibomian glands in comparison with patients of control group

2. Our findings suggest that most patients with stage N1A have MGD stage 1 (53.7%), while in patients with N1B almost equally common as stage 1 (38.9%), and stage 2 (41.7%) of MGD.

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NUTRITION AS IMPORTANT RESOURCE OF HUMAN HEALTH

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Introduction. According to statistics of WHO wrong nutrition and lack of exercise are main risks factors for deterioration of people`s health all over the world. Composition of nutrition products is an important reason for occurrence evolution of many noninfectious diseases (hypertension, coronary heart disease, diabetes), which causes myocardial infarction and circulatory disorders of the brain. Quality of food is a main criterion of supporting physical health of people. Balanced quantity of nutrients support optimal functions of organism, as integrated system. It is well known, that quality of food affects the human psyche (for example, lack of vitamins, amino acids and endogenous amines cause many mental disorders).

Materials and methods. To estimate a number of people who follow principles of healthy eating a mini-test was created in the «Google- forms». This questionnaire has showed a level of daily physical activity, daily standards of sugar, salt, fruits and vegetables, presence of chronic diseases of cardiovascular and endocrine systems, body mass index and secondary risk factors (drinking alcohol, smoking). 200 respondents aged from 18 to 69 years were interviewed. The survey was conducted during one week.

Results of research. Analysis of the data revealed the following results: 94.7% (78.9% women and 17.8% men) respondents had mental type of work, 68.5% - unbalanced feeding and less then 4-5 times per day, and small amount of people performs daily exercises (18.9%), 71.1% did not find their nutrition healthy, 57.8% consumed sweet drinks and fast-food daily, 63.2% ate less than 200 grams of fresh fruits and vegetables per day. Body mass index was normal in almost all interviewed people. 56% (45.8% women and 10.2% men) had chronic cardiovascular and endocrine diseases.

Conclusions. So, only 31.5% of respondents had a balanced nutrition. This number is very small and indicates insufficient food culture in the population. We need to provide educational activities on balance nutrition and its impact on human health, to improve economic situation in our country and to ensure state control over the quality of food products.

Koteliukh L., Borovyk K., Ryndina N.

THE FEATURES OF ACUTE MYOCARDIAL INFARCTION IN PATIENTS WITH METABOLIC DISORDERS

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Introduction. Today, the cardiovascular diseases are the actual problem worldwide. It is known that vitronectin, galectin-3, matrix metalloproteinases, tenascin C are considered as prognostic markers of the heart diseases.

Materials and methods. In the study were examined 120 patients, which obtained the treatment in Kharkiv clinical hospital № 27. All patients were distributed into groups: basic group consisted of 60 patients with acute myocardial infarction (AMI) with metabolic disorders (the presence of obesity and type 2 diabetes mellitus (DM)); the comparison group - 40 patients with AMI absence of obesity and DM; control group - 20 people. The vitronectin, galectin-3, matrix metalloproteinase-13 (MMP-13), tenascin C (Tn C) were determined by ELISA using set of reagents «Human Vitronectin» (China), «Human Galectin» (China), «Human MMP-13» (RayBiotech, Norcross, USA); «Human Tenascin-C Large (FNIII-C)» (Takasaki-Shi, Japan).

Results of research. In patients with AMI, overweight and obesity was found likely increase serum concentrations vitronectin and consisted 25.92% compared with patients with normal body weight and 48.35% compared to the control group. A significant increase in the concentration of galectin-3 in blood plasma was found when comparing patients with AMI on the background of obesity 1, 2-3 degrees and patients with normal body weight. Thus, in patients with obesity of 1 degree, the level of this indicator exceeded that by 58.1%, than in patients without obesity, and in patients with obesity of 2-3 degrees - by 90.9%, respectively. As for patients with AMI and overweight, there is a tendency to increase, which did not reach the level of reliability ($p=0.06$). The level of MMP-13 for 1-2 days in patients with AMI and type 2 DM was 65.6 ± 2.5 pg/ml and 47.9 ± 3.8 pg/ml without type 2 DM compared with the control group – 32.2 ± 2.6 pg/ml ($p<0.05$). The level of Tn C for 1-2 days in patients with AMI and type 2 DM was 18.64 ± 1.28 ng/ml and 20.12 ± 1.48 ng/ml compared to the control group - 14.93 ± 0.97 ng/ml ($p<0.05$).

Conclusions. Hence, hypervitronectinemia in patients with AMI on the background of overweight and obesity abdominal type demonstrated about the significant impact of excess fat on the processes of adhesion and aggregation of platelets. In patients with AMI and type 2 DM more likely determined by hyperproduction MMP-13 compared with AMI patients without type 2 DM, which may be due to the effects of hyperglycemia.

Kovalchuk V., Malets O.

INNOVATIVE METHOD IN THE TREATMENT OF DIABETES TYPE 2

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Introduction. Diabetes II type (insulin independent)-is an endocrine-metabolic disease characterized by chronic hyperglycemia caused by resistance of tissues to insulin. According to official statistics, about 1 million 137 thousand patients have been registered with diabetes type II in Ukraine. Generally in our country 3% population is sick with diabetes, whereas according to the data of the average world statistics this indicator reaches 8%.

The main method of treatment of diabetes II type is still the continuous administration of insulin (or other hypoglycemic agents), which in turn significantly reduces the quality of life of people with this disease. Therefore, up to the present day, doctors all over the world are trying to find new methods of treating this pathology.

Materials and methods. Patients suffering from rare genetic disease, called neonatal progeroid syndrome (NPS)

Results of research. In 2016, the team of authors of Houston (Baylor College of Medicine, USA) Identified a new peptide hormone produced by cells of the adipose tissue during fasting. The new hormone was called asprosin.

This hormone was identified in the search for answers for patients suffering from rare genetic disease, called neonatal progeroid syndrome (NPS), which holds the body from accumulation of fat.

During the study, in patients previously unknown hormone was detected in abnormally low quantities and in patients with diabetes its content was increased. Studies were held of the mechanism of this hormone, and they revealed that asprosin is secreted by white fatty tissue where it activates the camp-pka pathway which leads to a rapid release of glucose into the bloodstream.

Using this information, the researchers determined that they can develop an antibody against asprosin, and use it for neutralization of the hormone (a process called immunological sequestration). Thus, they can potentially reduce the amount of glucose released by the liver and as a result of that, the cells of pancreas need to release a smaller amount of insulin. To test this concept, scientists treated diabetics mice with this antibody and found that even a single dose of antibody worked good to reduce their insulin levels to the normal range. When these mice were treated for a longer period of time, their insulin resistance completely normalized.

Conclusions. Thus, further research on the role of asprosin can help to find a solution for complete recovery of patients with diabetes II type. In 2017, large-scale studies are planned on people with this pathology.

Kravchun P.

THE PATHOGENETIC ROLE OF VASPIN AND OMENTIN IN THE DEVELOPMENT OF OBESITY IN PATIENTS WITH POSTINFARCTION CARDIOSCLEROSIS

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Introduction. According to many authors adipose tissue hormones play a significant role in the development and progression of cardiovascular diseases, obesity and diabetes.

Materials and methods. For the purpose of the study we conducted a comprehensive survey of 76 patients after myocardial infarction of different localization over the past 5 years with concomitant obesity. Comparison group consisted of 80 patients with postinfarction cardiosclerosis without obesity. The control group included 35 healthy individuals. The content of vaspin and omentin in serum of the patients was determined by ELISA.

Results of research. The level of vaspin in patients with postinfarction cardiosclerosis and obesity was significantly higher on 20.56% and 63.84% as compared to that of patients with group of normal body weight and control group and reached 531.533 ± 4.536 pg/ml; 422.278 ± 3.195 pg/ml and 192.207 ± 2.126 pg/ml, respectively ($p < 0.001$). Whereas, the level of omentin in the main group of the patients (445.416 ± 3.054 ng/ml) was significantly higher on 14.29% and 20.44%, as compared to the patients without obesity and control group, where it was 519.657 ± 1.321 ng/ml and 559.838 ± 1.362 ng/ml, respectively ($p < 0.001$).

Conclusions. The levels of vaspin and omentin play an important role in the development of obesity in patients with postinfarction cardiosclerosis.

Kuzminova V.

DIAGNOSTIC FEATURES OF FIBROEDUCATION IN PATIENTS WITH NONALCOHOLIC FATTY LIVER DISEASE

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Introduction. Nonalcoholic fatty liver disease (NAFLD) leads to the development of hepatic steatosis with inflammation and subsequent maturation of fibrosis. In this regard, the early diagnosis of liver fibrosis facilitates expedient selection and timely appointment of therapy.

Materials and methods. 45 patients (18 men and 26 women) with NAFLD. The average age of patients was $51,5 \pm 3,2$ years. Patients are divided into 2 groups: Group 1 - with nonalcoholic steatosis (NAST) and the second group - with nonalcoholic steatohepatitis (NASH). Conducted FibroMax test which includes 5 biochemical parameters of blood serum: alpha 2-macroglobulin, haptoglobin, apolipoprotein A1, gamma-glutamy 1 transpeptidase (GGTP), total bilirubin, alanine aminotransferase

(ALT), aspartate aminotransferase (AST), blood glucose fasting (OCG), triglycerides (TG) and total cholesterol (TC) in serum. Quantitative indicators evaluated by METAVIR system.

Results of research. Patients of the 2nd group noted a significant increase in ALT in 2,7 time for 67.3% of patients, AST 2.3 times from 43,2% ($p < 0.05$), whereas the figures for patients with NAST were increased 1.7 fold in 38.1% and 1.6 times at 27.5%, respectively ($p < 0,05$). GGT was an increase of 1.2 times in 25.6% of patients with NASH. Hyperbilirubinemia 1.3 times, ($p < 0,05$) was determined in 12.1% of patients. Disorders lipid profile characterized by growth in serum total cholesterol level by 1.5 fold in 47.6% of patients with NASH ($p < 0.05$), while in patients with hypertriglyceridemia NAST prevailed, the TAG levels increased 2.2-fold in 62% of patients ($p < 0.05$). In assessing the results of the test average of fibrosis in the 1st group of patients accounted for $0,18 \pm 0,03$, the index of necroinflammatory activity $0,15 \pm 0,04$ which corresponds to the absence of fibrosis (F0) and histological activity (A0). In 27% of patients in group 2 fibro education indicators were within $0,33 \pm 0,04$, corresponding to (F1) portal fibrosis without septa formation and minimal histological activity (A1) $0,34 \pm 0,05$; 16,8% indicators with the presence of fibrosis of portal septa were isolated within $0,57 \pm 0,06$ (F2) and moderate activity $0,53 \pm 0,06$ (A2) and 7.9% of patients 0.68 ± 0.07 (F3) fibrosis, multiple portocentral septa without cirrhosis, high histological activity (A3) $0,81 \pm 0,09$. Correlation relationship between the degree of inflammatory activity and fibrosis in the liver ($r = 0,54$; $p < 0,05$).

Conclusions. NAFLD accompanied by inflammation, steatosis and fibrosis of the liver. Lipid spectrum of the blood characterized by the prevalence of hyperlipidemia and hypercholesterolemia in patients with NAST in NASH. Fibro education prevalent in patients with NASH when in patients with NAST it was missing. Application of the FibroMax test allowed to improve and supplement the diagnostic criteria fibro education of liver tissue.

Kvasova P.

THE EXAMINATION AS A STRESS FACTOR FOR THE STUDENT'S HEALTH

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Introduction. A significant of neuro-emotional stress of students during training are a common cause of psychosomatic diseases. Stress is a combination of body changes that occurs as a result of strong influences and is accompanied by a restructuring of its protective systems. Exam, and especially - examination session is a stress factor, in response to which the student's body is changing as a result of the mobilization of the body's defenses. But in some cases it is the physiological changes that are useful for this person, on the other hand - pathological, leading to disruption of physical and mental health.

Materials and methods. The study involved 120 students of 2-4 courses KhNMU, including 43 - students, 77 - girls. Preliminary were conducted questioning of participants to refine the conditional groups of factors that give rise to appearance of the stress. 50% of students were recommended various systems of correction (yoga, fitness, aerobics, massage, etc.). To increase resistance to stress-situations and elimination adverse stress situations.

Results of research. 84% of students considered themselves to be unstable to various educational stress-factors, in this prevailed girls (87%). When comparing students 2-4 courses this trend was observed at the 4th course. In analyzing the state of mental equilibrium before the session 4% of respondents have bad resistance to stress, 27% - are uncertain, and 69% have good resistance. If we compare the health indicators before and after the session, then there was a trend to growth of somatic diseases after the session: the absence of disease before the session noted 87.5% persons, and after the session - 78.1%. whereby, girls are more exposed to changes of physical state.

Conclusions. Stress as a phenomenon takes place during the session and part of the students are subject to its influence. Observed accumulation of stress reactions among students from junior to senior courses. Girls are more prone to stress effects than students. It is advisable to carry out early diagnosis of stress susceptibility of individuals and develop a set of preventive measures to protect of stress and the elimination of its effects.

Likha V., Dontsova E., Karnaukh E.

THE RESEARCH OF THE EFFICIENCY OF THE BIMATOPROST

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Introduction. In the 20 – th years of the last century in the USA was appeared a new drag for the treatment of glaucoma. The active ingredient of this drag was bimatoprost, which structure has related to prostaglandins. Very soon after the beginning of a wide application patients, who was suffered from glaucoma, became observed interesting effect – the eyelashes of patients became longer and thicker. This fact could not be interesting for the cosmetology market of the USA. After that, under the control of the FDA in the USA the Allegran company conducted a double-blind, placebo-controlled research, whose purpose was to determine the effect of bimatoprost on eyelash growth. According to this research, after 16 weeks of the everyday using of this drug 98 % women said, that their lashes became darker, thicker and longer. When the bimatoprost effect was proven, the Allegran company patented bimatoprost on the market of the USA. Due to the patent for the production, the company could hold any price for the drug during 15 years. So, bimatoprost became a “gold” drug, which has costed 2000-2500 dollars per gram of pure substance.

Materials and methods. Today, we can see a lot of drugs with bimatoprost on our Ukrainian cosmetology market. Therefore, the purpose of our experiment is to investigate the effectiveness of this drug and the presence of side effects.

Results of research. Within two months, a group of girls (25 people) aged 18-23 years have used bimatoprost once a day, putting on the skin of the upper eyelid (only at the base of the eyelashes, not getting on the mucous membrane of the eye). This target group did not have ophthalmic diseases. Side effects have 3 people – 12% - redness and itching of the eyes; 2 people-8% - dry eye effect; 1 person-4% - darkening of the upper eyelid skin. The intensive growth of the lashes was observed for each woman.

Conclusions. Bimatoprost is actually effective drug, but it has side effects in 24 per cent of cases.

Lola N., Yakusheva A.

DISEASES OF THE MIDDLE EAR CAVITY AND EUSTACHIAN TUBE AT THE RELATED GASTROESOPHAGEAL PATHOLOGY

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Introduction. Currently, the most frequent disease of the digestive system is gastroesophageal reflux disease (GERD). Muscles of the pharynx in violation of its tone contribute to high reflux episodes with the casting of aggressive gastric contents to the level of the nasopharynx and the cavity of the middle ear. Also, the application of aggressive gastric juice to the mucous membranes of the ENT organs can lead to inflammatory changes in the middle ear cavity and Eustachian tube.

Materials and methods. 100 middle-aged patients with GERD and possible otorhinolaryngological manifestations for 2016 were examined in the conditions of Kharkov Regional Clinical Hospital.

Results of research. According to the results obtained due to complete physical examination, 30 patients (30%) were detected, who had GERD associated with ENT diseases. 15 persons among them (50%) had laryngeal disease, 6 persons (20%) had pharynx disease, 4 persons (13%) – nasal pathology, 5 persons (17%) – a pathology of the middle ear and Eustachian tube. 1 person (20%) had catarrhal tubootitis, 1 person (20%) – exudative otitis media, 2 persons (40%) – chronic otitis media, 1 person (20%) – vasomotor tubotopathies. All patients complained of hearing loss, feeling of stuffiness, discomfort in the ears, autophony. With otoscopy, significant characteristic of exudative otitis media were noticed: the tympanic membrane is cloudy, yellowish in color, thickened with areas of calcification. 3 persons (60%) had the following: in the absence of perforation in the tympanic membrane, the fluid level was visualized and there was a slight hyperemia along handle of malleus.

Conclusions. GERD is one of the factors contributing to appearing Eustachian tube and middle ear cavity diseases. Aggressive gastric contents may enter the middle ear cavity through the lumen of Eustachian tube with the horizontal position of the body, violating its permeability due to edema. Adequate correction of GERD contributes to restoring the patency of Eustachian tube, stopping the aseptic inflammatory process and reduces the risk of secondary infection.

Lysak M., Rynchak P., Kolotilov A., Kysil I.

TREATMENT OF DYSMETABOLIC CHANGES IN THE MYOCARDIUM IN PRACTICE OF THERAPEUTIC

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Introduction. Dysmetabolic changes in the myocardium lead to a decrease in the contractile functional capacity of the heart. These disorders can cause severe myocardial dystrophy, heart failure without changes in the coronary vessels that are characteristic of ischemic disease.

Materials and methods. To study modern methods of treatment of dismetabolic changes in the myocardium, to prevent their transformation into angina and IHD. Analysis and study of scientific methodological literature on the treatment of dysmetabolic changes in the myocardium

Results of research. The main cause of dysmetabolic changes in the myocardium is considered to be circulatory disturbance, because of which, the volume of oxygen, microelements and vitamins does not reach the heart.

The main component of therapy is the stabilization of cardiac conduction and rhythm. To this end, drug treatment should improve the internal composition of cardiomyocytes and compensate for their energy needs, and also by regulating nerve impulses to act on the cells. Normalization of blood flow is achieved with drugs that relieve spasms of the coronary vessels and eliminate swelling of arterial walls. Thus, therapy includes enzymatic preparations, vitamin complexes from B1, B2, pantothenic and lipoic acids; Antioxidants (vitamins E and PP). To fill the deficit of intracellular potassium - drugs containing potassium salts ("Panangin", "Trompagin", potassium chloride); Group of nootropes for the restoration of nervous regulation and enhancement of repair in the myocardium.

All patients with these disorders are shown sanatorium treatment.

Conclusions. Dysmetabolic changes in the myocardium lead to a violation of the biochemical composition of cardiomyocytes. To compensate for these violations, energy-saving drugs are used. Also appointed micronutrients, vitamins and physiotherapy.

Malvika C.

MODERN APPROACHES FOR THE MANAGEMENT OF LUNG CANCER

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Introduction. Lung cancer and smoking often, but not always, go hand in hand. DNA mutations are caused not only by the puff of a cigarette, but also by various other factors namely: breathing fibers of asbestos, air pollution, radiation exposure, industrial substances, and to radon gas exposure. Still, smoking is the principal cause of lung cancer contributing 85 per cent among all types. Overall, the chance of a man

developing lung cancer in his lifetime ranges about 1 in 14; whereas for a woman, it is about 1 in 17, which includes both smokers and non-smokers. Statistics show lung cancer rate has been receding among men as compared in women over the few decades.

Materials and methods. If lung cancer is detected due to a screening procedure (CT, MRI or PET scan), a biopsy is performed to confirm the diagnosis. Surgeries are done, where procedures to remove lung cancer include: Wedge resection, Segmental resection, Lobectomy & Pneumonectomy. Lung cancer can be additionally managed via chemotherapy, radiation, or targeted treatments

Results of research. Advances in CT technology have allowed use of newfangled methods for the determination of lung cancers which categories: nodule volumetry, nodule perfusion analysis, dual-energy applications and computer-aided detection. The volumetric analysis is used to prognosticate response of tumor to treatment. Some promising, tenacious percutaneous techniques for palliation of lung cancer and other lung malignancies have emerged, which include techniques such as cryoablation (a technique which includes a minimal percutaneous invasion technique for management of non-surgical treatment of lung tumors); microwave ablation (a technique which involves microwaves and electromagnetic waves 300MHz-500MGz to treat lung malignancies); and radiofrequency ablation (in this technique electrodes are placed in tissue to mainly cause focal destruction using heat, which is ideal for pulmonary lesions).

Proponents of medical marijuana, cannabis advocate their possibilities for palliative cancer management. Also, the levels of intercellular adhesion molecule 1 (ICAM-1) – participating in fighting the invasion and spread of cancerous cells of in pulmonary carcinoma – have been known to be increased by Cannabinoids.

Conclusions. Let’s support the fighters, admire survivors, honor the taken and never ever give up hope, making lung cancer and anxiety, someday a thing of the past.

Manzheliy V., Dombrovskaya I.

THE ROLE OF ARTERIAL HYPERTENSION IN THE DEVELOPMENT OF VASCULAR DEMENTIA

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Introduction. Vascular dementia (VD) is one of the most pressing problems of modern clinical medicine. The importance of this issue, primarily caused by a significant increase in the number of persons of elderly and senile age, among whom the prevalence of dementia is particularly high.

Materials and methods. 3735 persons aged 45 to 50 years participated in the study, which shows the relationship between the level of blood pressure (BP) in middle age and cognitive function in later life for three decades.

Results of research. It was found that high systolic blood pressure in mid-life is directly correlated with the risk of cognitive dysfunction in the elderly. Increase in systolic blood pressure per 10 mm of mercury. Article increased risk for mild cognitive impairment 7% severe - 9%. Upon further analysis revealed that the risk of dementia

was higher in patients untreated. This is due to the nature of the specific lesions of brain vessels in arterial hypertension (AH). Since the AH is steadily progressing lesions matter of the brain associated with uncontrolled increase in blood pressure, a deficiency of blood circulation in brain vessels. Pathomorphological changes in the blood vessels of the brain in hypertension as plasma and hemorrhagic infiltration and necrosis of the vascular wall with further thinning, adaptive thickening of the walls of extracerebral vessels define the term "hypertensive angioencephalopathy". The leading role in the formation of Dementia in hypertensive encephalopathy plays lesions of the white matter of the brain and basal ganglia, which leads to disruption of communication departments frontal and subcortical structures (cortico-subcortical phenomenon of separation).

Diffuse changes of brain substance thus usually combined with focal lesions in the form of lacunar infarcts - small cavities ranging in size from 0.1 to 1.0 cm, produced in the cells of cerebral ischemia. Possible development or asymptomatic lacunar infarct, or the formation of transient ischemic attack, stroke, defined localization and volume of fire ischemia. Formation of multiple brain damage - lacunar state - worsens the course of hypertensive encephalopathy and ultimately leads to the formation of diabetes. Also important are large solitary cerebral infarction that developed against the background of hypertension.

Conclusions.

Thus, the experiments demonstrated the role of arterial hypertension as a major risk factor for vascular dementia. Therefore, timely normalization of blood pressure is able to inhibit the progression of vascular dementia and prevent recurrence of acute cerebrovascular accident.

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RISKS OF LONG-TERM USING OF PROTON PUMP INHIBITORS

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Introduction. Proton pump inhibitors are currently among the most prescribed drugs that are widely used in the treatment regimens of patients with gastrointestinal acid-related disorders such as gastroesophageal reflux disease, peptic ulcer, etc. However, in our days there is a tendency to increase the duration of use of drugs in this group, as well as their uncontrolled use by patients without consulting a doctor. Basically, PPI are considered well-tolerated drug with few and minor side effects during their intermittent use. Nevertheless, more and more often there are data on serious, potentially life-threatening patients, complications with prolonged use of PPI. The purpose of the study was to identify the side effects of the use of proton pump inhibitors and a description of the main mechanisms for the development of these states.

Materials and Methods. The available literature was reviewed and analyzed, suggesting a possible connection between long-term therapy of PPI and various side effects, and also suggested the main mechanisms that could lead to their development.

Results of research. In the course of the analysis, cases of complications of different degrees of severity were found. Potential side effects vary from interactions with other drugs, increased risk of infections, reduced absorption of substances in the intestine to nephropathy and development of dementia.

Conclusions. Thus, the analysis revealed the presence of complications with long-term use of PPI, but the advantages of therapy of this group of drugs significantly exceeded the damage from the developed complications. Nevertheless, it is necessary to monitor the appointment and use of their patients, because the risk of complications is rapidly increasing with the use of PPI.

Mildred Noroh F.

INCREASED INCIDENCE OF OSTEOARTHRITIS IN MIDDLE-AGED WOMEN

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Introduction. Although osteoarthritis is disease cause by a complex of factors such as obesity, overwork of a particular joint or set of joints, age and others. It still is more prevalent in middle aged women. Osteoarthritis is a degenerative joint disease characterised by pain or aching, stiffness, decreased range of motion and swelling.

Materials and methods. A study was done 40 women aged 45-55yrs for 4yrs. Another study was made on 40 men also aged 45-55yrs. These people were previously healthy with no changes in the joints after extensive medical examination. They were all allowed to carry on their daily activities without much changes. Other factors that that influence on their prognosis, such as obesity, strenuous jobs or activities were taken out.

These people where studied closely and all the changes where carefully documented.

Results of research. The results of the studies showed that over the course of 4 years 6 women began to show early signs of osteoarthritis as opposed to 4 men.

Conclusions. Since this osteoarthritis is seen to be more apparent in middle age women more than middle aged men. More studies should be made to find out the exact reason. And to also find out if anything can be done about it.

Nagorny I.

RELATION OF MYOCARDIAL DYSFUNCTION OF THE LEFT VENTRICULAR MIOCARDIUM TO THE CONCENTRATION OF OSTEOPONTIN AND INTERLEUKIN-15 IN HYPERTENSIVE PATIENTS WITH CHRONIC HEART FAILURE

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Introduction. Among the causes of death of middle and elderly patients cardiovascular diseases (CVD) are the first priority. One of the most important signs of hypertension is remodeling of the left ventricular (LV) myocardium. Remodeling involves changing the geometrical shape and structure of the heart muscle [3] and leads to myocardial dysfunction.

LV remodeling is accompanied by the development of interstitial fibrosis, the marker of which is osteopontin. Osteopontin is a secretory sialoprotein, the propeptide of which is formed by 314 amino acid residues. Proved his involvement in the inflammatory processes with increasing rigidity of the vascular wall, calcification of atheroma. The role of osteopontin in the pathogenesis of CVD remains to be fully understood.

Interleukin-15 (IL-15) is a pro-inflammatory cytokine that reflects autoimmune inflammation. His role in the development of structural and functional rearrangement of the myocardium of the LV is poorly understood.

The aim was to study the relationship between the concentration of osteopontin, IL-15 serum, remodeling and changes in left ventricular cardiac function in hypertensive patients complicated with chronic heart failure (CHF)."

Materials and methods. The first clinical group consisted of 44 hypertensive patients with concomitant heart failure I stage, the second – 64 hypertensive patients with concomitant heart failure II A-B stage. The control group consisted of 12 healthy people. Methods of investigation included collection of complaints and anamnesis, anthropometry (BMI, waist circumference, hip circumference, growth).

All patients underwent ultrasound examination of the heart and determined the level of osteopontin and IL-15 in serum.

Statistical processing of the results was performed using nonparametric statistics with Statsoft STATISTICA v. 10.0 software package.

Results of research. A high plasma level of osteopontin in patients with CHF was revealed. The relationship between the unfavorable state of LV filling and the increasing of serum osteopontin concentration was established, while the level of interleukin-15 did not demonstrate such relation.

Conclusions. An increase in the level of osteopontin in the serum indicates the connection of heart failure in hypertensive patients. Osteopontin and IL-15 serum are not statistically related to the characteristics of left ventricular morphology in hypertensive patients. An increase in the level of osteopontin in the serum is associated with an unfavorable state of filling the left ventricle. Thus, osteopontin can be considered as a biomarker for the diagnosis of CHF.

*Nazarov D.***THE TREATMENT OF CASTRATION-RESISTANT PROSTATE CANCER
AT THE PRESENT STAGE**

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Introduction. Prostate cancer (PC) is the most common neoplasm among men of North America, Europe and several regions of Africa. Every year this pathology is diagnosed in more than 500 000 people. It is one tenth of all oncological diseases among men. In Europe PC is the second malignant cause of death after lung cancer. But the prevalence is more higher than it is registered. PC is revealed in 60-70% of men, who died because of other diseases.

In the case of metastatic PC hormonal therapy (HP) is traditionally used as the most effective method of palliative treatment. Despite the possibility of HT to increase survival and to decrease symptoms. Nevertheless 5 year survival of men with metastatic PC is 28%. It highly differs from 5 year survival of PC without metastases, which makes practically 100%.

Materials and methods. Analysis and summing up of European Urology Association and National Library of USA Medicine literature of last 5 years.

Results of research. The diagnosis Castration-resistant PCa (CRPC) is established, when there is a growth of prostate specific antigen (PSA) in blood and/or other signs of disease progression on condition of adequate testosterone blockade with confirmed castration level of testosterone. Unfortunately, the problem of effective treatment of CRPC is not solved nowadays and length of live of such patients is about several monthes. The mechanisms of CRPC development are complicated and not studied enough. Today docetaxel, enzalutamid, abiraterone, sipulucel-T, cabazitaxel are recommended to treat hormonal resistance. Docetaxel is one of the most widely used drug for CRPC. The treatment with these drugs can increase the life only on 3-4,4 monthes, even despite of its high value. It is recommended to use targeted therapy, when the organism is resistant to enzalutamid and abiraterone therapy.

Conclusions. Today the main problems of CRPC treatment can be distinguished:

- the optimal sequence of drug use is not defined
- there is no data of its use in combination
- the decision of doctor and value of drugs influence the future therapy
- diagnosis of resistance type is very complicated
- there is no individual markers of disease.

Nesterenko V., Kovtun I.

QUALITY OF LIFE AND STRUCTURE OF COMORBIDAL DISEASES IN RHEUMATOID ARTHRITIS PATIENTS

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Introduction. Rheumatoid arthritis (RA) is one of the most common systemic connective tissue diseases that causes early disability and a high incidence of disability. Patients with RA are distinguished by a high percentage of comorbid diseases (CD), which leads to a deterioration in the quality of life and the course of the underlying disease. Also, the presence of CD can interfere with the appointment of basic drugs for the treatment of RA. The quality of patient's life is a reliable, informative and economical method of assessing the physical and mental status, the activity of the disease in the dynamics and effectiveness of treatment.

Materials and methods. 16 RA patients participated in the study, 9 (56.25%) women, 7 (43.75%) men, the average age was 58 ± 2.37 years. Control group-16 healthy people, women- 9 (56.25%), men-7 (43.75%), the average age was $59 \pm 3,12$ years. For the study of CD, all patients were examined with the SF-36 questionnaire to determine the quality of life. The following indicators were evaluated by the questionnaire: physical functioning (PF), role physical functioning (RF), pain (P), general health (GH), vitality (VT), role emotional functioning (SF), social functioning (RE) and psychological health (MH). To study the structure of comorbid diseases, the data were analyzed by materials of the clinical records, medical charts and communication with RA patients.

Results of research. The indicators of the quality of life of RA patients were significantly different in comparison with the control group. So PF parameter of the patients of the main group was (46.25 ± 9.81) , the control group was (80 ± 21.72) . Also, significant differences were defined in the indicators: RP- (38.1 ± 12.05) main group, (71.87 ± 20.15) control group, P- (53.7 ± 13.9) and (32.5 ± 8.7) , GH- (41.5 ± 9.2) and (53.1 ± 13.7) , VT- (52.8 ± 5.67) and (66.8 ± 16.1) , SF- (45.7 ± 10.9) and (53.3 ± 10.8) , RE- (63.0 ± 10.6) and (79.3 ± 26.8) , MH- (53.3 ± 14.1) and (74 ± 18.7) the main group and the control group, respectively, ($p < 0.05$).

Two or more CD were identified in 93.75% of patients. Of the major part of the patients, cardiovascular diseases (CVS) were diagnosed: heart failure (81,25%), hypertension (68,75%), ischemic heart disease (31,25%), lower extremity varicose vein disease (25%). The frequency of occurrence of obesity of alimentary-metabolic nature (31,25% of patients), chronic gastroduodenitis (31,25%), osteochondrosis (25%) was also very high. Autoimmune thyroiditis (12,5%), diabetes mellitus (12,5%) were found with a lower frequency.

Conclusions. It has been determined that, the quality of life of patients with rheumatoid arthritis is significantly lower in comparison with practically healthy individuals, which is caused by the presence of a chronic disease. Also in the course of the study, a third of the patients showed obesity of alimentary-metabolic origin and chronic gastroduodenitis, every fourth patient had osteochondrosis. Most of the CDs are CVS,

which leads to more difficult selection of drugs for basic therapy and worsen the course of the disease.

Nguyen T.L.

THE RELATIONSHIP BETWEEN RESISTIN AND BLOOD PRESSURE IN PATIENTS WITH DIABETIC CARDIOMYOPATHY

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Introduction. Many patients with diabetes mellitus type 2 (DM 2) have different degree of obesity. Adipose tissue produces resistin, which plays a great role in development of insulin resistance. The myocardial pathology, which develops in patients with DM 2 is called diabetic cardiomyopathy (DC). Even a slight increase of blood pressure (BP) worsens the prognosis of such patients. Now is not enough information about the interrelation between resistin and BP in patients with DM 2.

The aim was to find the relationship between level of resistin and BP in patients with cardiomyopathy and high BP and in patients with cardiomyopathy without high BP.

Materials and methods. The study was performed on 87 patients with DC in the 1-st group and 16 patients with cardiomyopathy on the syndrom of malabsorption in the 2-nd group. The systolic BP (SBP), diastolic BP (DBP) and mean hemodynamic arterial pressure (MHAP) were calculated. The level of resistin was determined by the enzyme immunoassay.

Results of research. In the 1-st the SBP (mmHg) was $134,96 \pm 1,16$, the DBP (mmHg) was $82,48 \pm 0,78$, the MHAP (mmHg) was $99,6 \pm 0,81$. In the 2-nd group the SBP (mmHg) was $121,19 \pm 1,07$, the DBP (mmHg) was $79,36 \pm 0,82$, the MHAP was $93,1 \pm 0,84$. The level of resistin (ng/ml) in the 1-st group was $12,96 \pm 0,22$, in the 2-nd was $11,38 \pm 0,37$. The relationship between resistin and MHAP was $R=0,32$ in the 1-st group ($p < 0,05$), and it was not veracious in the 2-nd group of patients ($p > 0,05$).

Conclusions. Patients with DC and increasing BP had a higher level of resistin than patients with cardiomyopathy and without high BP. The relationship between resistin and MHAP also was found. Thus resistin has a huge role in development of cardiovascular pathologies in patients with DM 2 and especially in patients with high blood pressure.

Owoeye S.O.

THE PREVALENCE AND CAUSES OF HYPOTHYROIDISM AMONG OLD AGE PEOPLE

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Introduction. Thyroid disorders are common in the elderly, and are challenging to diagnose and treat due to atypical presentations and the presence of a wide variety of comorbid conditions. Untreated thyroid dysfunction is associated with significant morbidity in the elderly. Interpretation of thyroid function tests need careful examination of comorbidities and drugs interfering with thyroid function tests. Early control of hyperthyroidism is needed due to the adverse cardiac outcomes, and slow correction of hypothyroidism is desirable in elderly patients with hypothyroidism. Neoplastic disorders of thyroid and hypothyroidism are more common in the elderly, while hyperthyroidism is less common. The aim of the research is to determine the prevalence and risk factors of hypothyroidism among old age people.

Materials and Methods. As age advances, the thyroid gland undergoes progressive fibrosis and atrophy, leading to reduction in thyroid volume, making it difficult to palpate. Prevalence of autoantibodies increases with age, reaching up to 20% in women over the age of 60 years, and may be partly responsible for the anatomic changes in the thyroid gland. Neoplastic lesions in the thyroid increase with age, making it more nodular. Thyroid hormone synthesis is regulated by the hypothalamo–pituitary–thyroid (HPT) axis and iodide status in the body. The HPT axis is intact in regulating thyroid synthesis even in the elderly. Iodide status in the elderly is low compared with young adults due to dietary restrictions of salt and decreased absorption due to comorbid conditions.

Results of research. Many population- and hospital-based studies have examined the age-related changes in thyroid functions. Thyroidal iodine uptake decreases with age, leading to decreased T4 secretion in the elderly. This reduction in T4 secretion is compensated by decreased T4 metabolic clearance due to decreased 5' deiodinase activity with advanced age. Age-related decline in T3 is demonstrated only in a few studies, and that too only after the age of 90 years. This reduction in T3 is due to decreased T4 synthesis with age and decreased activity of 5' deiodinase. The inactive metabolite reverse T3 (rT3) seems to increase with age. Studies using highly sensitive thyroid-stimulating hormone (TSH) assays show an age-dependant decline in TSH. Thyroid binding globulin level decreases with age and, therefore, measurement of free thyroid hormones is more useful in the elderly.

Conclusion. There is marked change in thyroid hormone activities with aging. There is a decline in serum thyroid-binding globulins with age, making free thyroid hormone estimation necessary. Aggressive management of hyperthyroidism and watchful management of hypothyroidism is desirable in the elderly. Neoplastic disorders and hypothyroidism increase with age. Thyroid dysfunction, if untreated is associated with significant morbidity. Advanced age is an independent risk factor for thyroid malignancy, and thyroid malignancy in the elderly is associated with poor prognosis.

Praharaj P., Ilchenko I.

EFFECT OF NEW-ONSET ATRIAL FIBRILLATION THERAPEUTIC MANAGEMENT FOR CHRONIC HEART FAILURE DURATION

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Introduction. The development of AF is associated with structural and electrophysiological remodeling of the myocardium, especially of the atrial myocardium. It was found that the AF is not only an increase in the atria, but there are significant changes in myocardial activation of proliferative changes, fibrosis and slowing of the pulse. Atrial fibrillation and chronic heart failure frequently coexist, these condition predisposes to the each other, and the concomitant presence of the two identifies individuals at increased risk for mortality.

The aim of this study was to study any possible correlation between chronic heart failure (CHF) functional class (FC) dynamics in patients with new-onset (NO) of atrial fibrillation (AF) depending on the treatment strategy - control of heart rhythm (HR) and heart rate (HR) control.

Materials and methods. Material and methods. This is a 5-year retrospective cohort study with analysis of the dynamics of heart failure in 304 patients (129 of them women) with new onset of AF during 5 years. Depending on the treatment strategy of AF all patients were divided into 2 groups: Group 1 - control of heart rhythm (160 patients), Group 2 - control of heart rate (144 patients). Manifestations of heart failure were evaluated by NYHA classification with the annual assessment of FC of CHF; functional class of CHF as a control points assessed at baseline and at 5 and 10 years. Hospital admissions and worsening health of patients requiring correction of outpatient treatment state also considered.

Results of research. At the time of inclusion in the study manifestations of CHF FC I-II were 109 (68.1%) and 99 (68.8%), and heart failure FC III-IV 51 (31.9%) and 45 (31.2%) patients groups 1 and 2, respectively. After 5 years of observation CHF I-II FC remained at 72 (45.0%) and 75 (52.1%), and III-IV CHF FC was observed in 88 (55.0%) and 69 (47.9%) patients 1 and 2 groups, respectively ($P = 0.087$). After 5 years of CHF manifestations FC I-II were 61 (38.1%) and 58 (40.3%), and III-IV FC - 99 (61.9%) and 86 (59.7%) patients 1 and 2 groups, respectively. The average period of CHF progression was 4.9 ± 1.2 years (95% CI 3.8-9.9) and not significantly different in patients with different treatment tactics: 1 group – 4.0 ± 1.2 years (95% CI 3.4-8.7), in group 2 – 3.6 ± 1.4 (95% CI 3.3-9.2); $P = 0.726$.

Conclusions. In patients with AF BB treatment selection - control of heart rhythm or control heart rate does not affect the progression of heart failure. Differences in progression of chronic heart failure with increasing FC at different therapeutic approaches were noted only in the first 3 years of observation and were slightly higher in patients with heart rhythm control than patients with a heart rate control, although the difference was not significant.

Qalasi Mohanad

BRONCHIAL THERMOPLASTY

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Introduction. Asthma is a chronic inflammatory respiratory disease in which variable air obstruction and symptoms of cough, wheeze, and dyspnea are noted.

Materials and methods. Bronchial thermoplasty is a non-drug procedure for severe persistent asthma which gives thermal energy to the airway wall in a controlled way in order to reduce excessive smooth muscle of the airway. By Reducing smooth muscle of airway, it decreases the efficiency of the airways to constrict, therefore lowering the rate of asthma attacks. Bronchial thermoplasty is mainly given by the Alair System and is carried out in three O.P. procedure visits, each vaguely three weeks apart. The first mainly manages the airways of the right lower lobe, the second manages the airways of the left lower lobe and the last, manages the airways in both upper lobes. Once all three procedures are done the bronchial thermoplasty management is done successfully.

Results of research. Bronchial thermoplasty is done with bronchoscopy where patient is under sedation of moderate rate. All possible airways, with the exception of the right middle lobe, are managed by bronchoscopy. Carrying out bronchial thermoplasty is quite a task and the duration of the treatment for a single lobe is often time consuming than during the usual bronchoscopy. Therefore, bronchial thermoplasty is regarded as a complex method and is mainly for the highly experienced and skilled bronchoscopist. Management of patient is vital in any such conditions and during extensive procedure of bronchoscopy. Therefore, patient is selected with extreme care, their preparation and management of procedure is well examined. Postoperative care and follow-up is done in order to examine the after effects of the procedure, and if any complications arise. x trials that include Y patients have been analyzed covering the period of 2010-2017.

Conclusions. Trials for BT efficacy compared to conventional treatment Bronchial thermoplasty complements maintenance of asthma medications by implementing an enduring control of asthma and remodeling an asthma-oriented life. Also, bronchial thermoplasty is manifested to decrease extreme exacerbations (asthma attacks) and make life easier.

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KOUNIS SYNDROME (HYPERSENSITIVITY CORONARY SYNDROME)

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Introduction. Kounis syndrome is a rare condition characterized by unstable vasospastic, nonvasospastic angina, or acute myocardial infarction and is triggered by the release of inflammatory mediators following an allergic insult. Factors which trigger Kounis syndrome include: drugs (analgesics, antibiotics, and anticoagulants), environmental factors (jellyfish sting, poison ivy, and viper venom), food induced

factors like- histamine fish poisoning (scombroid syndrome), kiwifruit allergy, anisakiasis (associated with ingesting under-cooked or raw fish). Three types of Kounis Syndrome are distinguished; Type I- Coronary Spasm, found in patients with no predisposing factors to coronary artery disease. Type II- Coronary Thrombosis, found in patients with preexisting arteromatous disease and Type III- Drug Eluting Stent Thrombosis, found in patients who died suddenly with histological exam revealing infiltration of coronary vessels by eosinophils and mast cells. The aim of this research is to demonstrate the occurrence of acute coronary syndrome in patients with allergic diathesis with little or no risk factors to this condition.

Materials and methods. Two patients, Patient A- 50 year old male with no history of atopy or cardiovascular risk factors presented with epigastric pain, precordial pain, and general malaise after taking Ibuprofen tablet and Patient B- 55 year old woman with history of hypertensive disease and an unstudied history of adverse reaction to pyrazalones accidentally received i/v metamizole for intestinal colic, and developed skin rash, profuse sweating, chest tightness were admitted to the internal medicine department. The following investigations were carried out: complete blood count, biochemical blood analysis, electrocardiography and allergic skin test.

Results of research. Results for patient A were- moderate eosinophilia, increased troponin I levels, ST-elevation in inferior leads and a positive prick test for ibuprofen. Results for patient B were- elevated troponin I, ST-elevations in leads V2-V6 and positive prick test for metamizole. The condition of both patients improved after receiving antihistamines, corticosteroids, i/v nitroglycerin.

Conclusions. It was deduced that both patients developed classic acute coronary syndrome after an allergic hypersensitivity to drugs. Patient A had type I kounis syndrome as he had no predisposing factors while Patient B had type II, with a known history of hypertensive disease.

Shubina M.

THE STUDY OF OSCILLATIONS IN ADAPTIVE HORMONES IN PATIENTS WITH CHRONIC ECZEMA

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Introduction. An important role in the implementation of non-specific Adaptive reactions of the organism playing the hypothalamic-pituitary-adrenal system, such as glucocorticoids. Data on daily fluctuations of the content in the blood of the mentioned hormones adaptation in patients with chronic eczema.

The study of biological rhythm characteristics in the level of cortisol and insulin, their role in the pathogenesis of chronic eczema, assessment of the adaptive capabilities of the organism.

Materials and methods. Depending on the content of cortisol in the blood serum in the morning selected three groups of patients with chronic eczema: 1 gr. – high level; 2 gr. with the reduced level of 3 gr. - with normal levels of the hormone.

Results of research. In patients 1 gr. morning cortisol content increased ($p < 0.01$) and reduction of insulin ($p < 0,05$). 2 gr. in the future only the level of cortisol in the morning and in the evening ($p < 0,05$) insulin is not different from the control group. Simultaneous analysis of changes to content of cortisol in the morning and evening insulin allowed in 1 and 2 groups of patients with select subgroups: 1 and 2 and with normal levels of insulin, 1B – low and 2 b – with a high content of insulin. The content of cortisol in 1 and the group exceeded its value in patients 1 would group only in the morning ($p < 0,05$), and the level of insulin different at 08.00 and 18.00. In patients with low content of cortisol is marked fair increase insulin in patients of Group 2 in the morning and in the evening, compared with the 2.

Analysis of indicators of daily fluctuations in hormone content in patients 1 and 2 of the groups established the fair to increase the content of cortisol at 6 p.m. occurred in 20 patients (reduction of insulin in 12 cases in the morning and in the evening), decreased cortisol at 08.00 and 18.00 – in 12 patients (increase of insulin at 08.00 in 6 cases). The normal contents of hormones found in 2 patients.

Correlation analysis found the existence of a positive relationship between cortisol and prevalence in 1st Gr.; the negative relationship between the cortisol and the duration of the process, cortisol and prevalence in the 2nd Gr.

Conclusions. The obtained results allowed to identify in 54 (84,4%) patients with chronic eczema endocrine disorders universal mechanisms of stress tolerance by the body. We highlighted two types of reaction of the body to stress from the adrenal cortex, which turned out to be an increase in cortisol at 08.00 in 34 (53.1%) patients or a decrease in the hormone at 08.00 and 18.00 in blood 20 (31%) patients.

Detected disadaptive disorders in patients with chronic eczema emphasize the need to develop methods aimed at increasing stress and adaptive capabilities of the organism.

Skoryi D.

THE INFLUENCE OF THE PSYCHOEMOTIONAL STATE ON ARTERIAL HYPERTENSION DEVELOPMENT

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Introduction. Based on last research of the World Health Organization every third adult person has an increased level of blood pressure. This condition may be a reason for more than half cases of stroke and different heart diseases. Arterial hypertension takes a first place among the cardiovascular diseases. And psychogenic factor can take a leading position in its formation.

Materials and methods. We have studied 10 patients with stage 2 arterial hypertension and 5 people with a normal lever of blood pressure (control group). The study was based on different departments of Kharkov regional hospital. An age of people who took part in our investigation was from 32 to 65 years old. We have used different methods of examination among then clinical ones, an Eysenck's Personality Inventory (EPI) test of personality and Spielberg-Hanin's anxiety scale. We have asked patients about their normal lever of blood pressure and its maximum level, an age, the

disease duration, the reason of first incidence of high blood pressure, family anamnesis, life anamnesis including the place of work, attitude to it, presence and the frequency of different stress situations and ways to cope with them. Patients have answered on 57 questions of an EPI test in order to find out the level of extroversion-introversion and the emotional stability or instability (the scale of Neuroticism). The obtained results then were distributed on a graph within 4 types of temperament: sanguine, choleric, melancholic and phlegmatic. Spielberg-Hanin's anxiety test included 40 questions in order to find out the lever of personal and situational anxiety.

Results of research. We have obtained the following results: 70% of patients (7 persons) have a phlegmatic type of temperament (high level of introversion and emotional stability), 20% of patients have a melancholic type of temperament (high level of introversion and emotional instability) and 1 patient has a choleric type temperament (high level of extroversion and emotional instability). 80 % of patients have admitted the first case of rising blood pressure after an emotional shock such as relative`s or child`s death, loss of job etc. In control group 60% have a sanguine type of temperament (high level of extroversion and emotional stability), 20% are melancholics and 20% are choleric. All people who took part in this research have shown the medium or high level by the personal and situational anxiety points without a significant correlation depending on the presence of hypertensive disease.

Conclusions. In conclusion we can admit that arterial hypertension is a disease of people with high level of introversion and emotional stability, who are trying to keep all their emotions inside themselves, especially in different stress situations, and in this way they provoke the development of this disease. Also we can say that lever of anxiety is the same and only the way of coping with negative influence differs, so the psychogenic factor is one of the leading factors of arterial hypertension development.

Sokolnikova N., Kumar Ravi

INTERRELATION OF THE INDICATORS OF HEMODYNAMICS AND INTERLEUKIN-6 IN PATIENTS WITH DIABETES MELLITUS TYPE 2

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Introduction. The increasing of blood pressure leads to the development and progression of myocardial pathology in patients with type 2 diabetes mellitus (DM 2). However, the effect of proinflammatory factors, such as mediator of inflammation interleukin-6 (IL-6), in the formation of vascular pathology in patients with DM 2 is not studied enough.

The aim of study was to evaluate the relationship between hemodynamic parameters and the level of proinflammatory cytokine IL-6 in patients with DM 2.

Materials and methods. The systolic blood pressure (SBP), diastolic blood pressure (DBP), mean hemodynamic arterial pressure (MHAP) were determined in 54 patients with DM 2 without severe complications. The IL-6 was determined by an enzyme immunoassay using a set of DRG reagents. The control group consisted of 20 practically healthy persons. The groups were comparable in age and sex.

Results of research. In the group of patients the average values of SBP (mmHg) were 134.94 ± 1.27 , and in the control group - 120.75 ± 1.51 ; the DBP values (mmHg) were 84.34 ± 0.63 and 78.95 ± 0.83 respectively; the MHAP was 100.43 ± 0.78 in the group of patients and 92.08 ± 0.98 in the control group, and significantly differed in all groups. The level of IL-6 (ng/ml) was significantly different in the groups: in the group of patients it was 13.34 ± 0.25 , in the control group - 8.83 ± 0.22 . We revealed significant correlation ($p < 0.05$) between SBP and IL-6 ($R = 0.26$), between MHAP and IL-6 ($R = 0.28$).

Conclusions. The likelihood of developing cardiovascular disease increases in patients with DM 2 even with a slight increase of blood pressure, which is due to a systemic inflammatory response due to an increase of the level of inflammatory markers, one of which is IL-6.

Sukhonos N., Diasamidze M.

POTASSIUM DISPERSION ON BIOLOGICAL ENVIRONMENT IN COMBINATION OF VIBRATIONAL DISEASE AND HYPERTENSION

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Introduction. Potassium is the main intracellular ion, which takes part in providing homeostasis. Main biological role of potassium is acting in transmembraneous potential which provides irritability and conductivity of nervous and muscular cells, primary of heart muscle. Also it takes part in regulation of acid-base balance in blood and other organs. It also participates in enzymes activation and collagen synthesis which is the leading unit in pathogenesis of multiple diseases, especially of vibrational disease (VD), commonly known as angiotrophoneurosis.

Materials and methods. Research included 107 patients with the vibration disease diagnosis of local vibration of I and II stages, aged 41 — 66 (average age $54 \pm 6, 17$). The content of potassium was determined by atomic absorption method with a spectrophotometer «Saturn — 4» (Russia).

Results of research. We have found statistically significant increasing of potassium in blood serum in all groups of patients. Changes were maximal in the comorbid course of hypertension. In the comparison group potassium content in blood plasm was $5,93$ mmol/l ME [5,48; 6,30]; main group — $6,91$ mmol/l ME [6,50; 7,62], control group — $4,77$ mmol/l ME [4,32; 5,06]. These changes can be evidence of violations of metabolic processes and hormonal changes in patients with VD accompanied by hypertension. In erythrocytes levels of potassium have been significantly decreased in main group — $63,7$ mmol/l ME [59,0; 67,5], in comparison group — $71,1$ mmol/l ME [63,5; 76,6], compared to control group — $86,0$ mmol/l ME [82; 89]. Excretion of potassium with urine in the experimental group has been significantly increased comparing to comparison group: $98,1$ mmol/l ME [93,5; 104,5], comparing to $82,3$ mmol/l ME [77,6; 87,5], control group — $70,0$ mmol/l ME [67; 73]. Potassium causes constriction of peripheral vessels which promotes increased urination typical for hypertension. Hair levels of potassium have been statistically decreased in the group

of patients with comorbid pathology (151 mmol/l ME [133; 158]), comparison group (192 mmol/l ME [127; 135]) and control group (211 mmol/l ME [202; 219]). This suggests that there have been disorders of regulation of potassium and dysfunction of sympathoadrenal system.

Conclusions. Our data suggest that there is possible pathogenetic significance of potassium metabolism in development of VD and VD accompanied by hypertension. Also it have been revealed that the hypertension presence in VD patients burdens its course in all studied directions.

Sukhonos N., Hrechukha A.

STUDY OF IL-4 AND IL-6 IN COMORBID COURSE OF VIBRATIONAL DISEASE AND HYPERTENTION

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Introduction. Clinical picture of vibrational disease includes neurovascular changes there important place is taken by disorders of peripheral blood circulation presenting in capillary and later in precapillary stream. Hypoxia and disorders of microcirculation cause activation of blood cells which begin producing special vasoactive substances — cytokines. Proinflammatory cytokines cause progression of myocardial hypertrophy and remodeling of vascular stream.

Materials and methods. The study included 107 patients with the vibration disease diagnosis of local vibration of the I and II stages, aged 41 -66(average age 54 ± 6 , 17). Content of cytokines in blood serum was indicated using ELISA test-systems «ProCon IL-4», «ProCon IL-6», and reagent kit for quantitative analysis of cytokines in biological environment of human according to instructions of factory «Protein outline».

Results of research. We have found statistically significant increasing of IL-8 (28,37 pg/ml Me [18,54; 36,57]), control group (18,53 pg/ml Me [12,49; 28,01]), which suggests on present activation of inflammatory processes, which are possibly induced by peripheral tissue hypoxia, and changes of reactivity of immune system. Its levels increased depending on the stage of VD: IL-8 ($p < 0,001$) in the VD II and hypertension II stage group (33,0 pg/ml; Me [28,3; 38,62]) comparing to the VD I and hypertension II group (24,91 pg/ml; Me [13,75; 30,21]). Its levels increased depending on the presence of comorbid hypertension: IL-8, ($p = 0,041$) in patients with VD II and hypertension II (33,0 pg/ml; Me [28,3; 38,62]) comparing to VD II (28,37 pg/ml; Me [18,54; 36,57]). Level of conter-inflammatory cytokine moderately decreased depending on the stage of VD: IL-4: in group of VD II (4,75 pg/ml; Me [4,15; 6,48]) comparing to VD I group (4,56 pg/ml; Me [3,09; 5,19]). Close to the statistically significant decreasing is IL-4($p = 0,028$) in patients with VD I and hypertension (5,69 pg/ml; Me [4,54; 6,59]) comparing to VD II and hypertension (4,59 pg/ml; Me [3,43; 5,53]). Those data suggest that changes appear as a compensatory reaction and are connected with inflammatory process activity (increasing of IL-8).

Conclusions. It's proved that more expressed changes of cytokine pattern are present in patients with more high stage of VD and in comorbid hypertension. Unidirectional changes suggest that there are common chains of pathogenetic mechanisms of development of studied diseases.

Sultan Mohamad

THE EFFICIENCY OF OSTEOARTHRITIS TREATMENT WITH DIACEREIN

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Introduction. To investigate the efficiency of the treatment of osteoarthritis in combination with diabetes type 2 using diacerein.

Materials and methods. The study included 25 patients aged 56 ± 0.35 years (6 males) with knee osteoarthritis and type 2 diabetes mellitus. All the patients have performed X-ray examination and OA was assessed according to the classification of J.H. Kellgren and J.S. Lawrens. Patients were assigned for diacerein, 50 mg 1 time per day during the first two weeks and then 50 mg twice daily for a further period of treatment (during 3 months). Patients were assessed by VAS scale. All adverse events reported were documented during the study period. Laboratory studies included C-reactive protein (CRP) level which was measured by latex method).

Results of research. The efficacy of treatments, as assessed by pain intensity (VAS scale), showed that diacerein was associated with a significant reduction in pain intensity by 3 months, 25% respectively. The improvement in functional abilities by VAS scale (functional insufficiency) was significantly better with diacerein by day 30 and 90, 32% and 25% respectively. The improvement in laboratory studies was associated with significant reduction of CRP during the treatment 75% respectively. In patient who completed 3 months of treatment, diacerein was frequently assessed as having "improvement" or "substantial improvement". All the studied parameters severity of OA statistically significantly decreased as a result of treatment, indicating that the treatment process was successful in this group of patients.

Conclusions. Diacerein is an effective treatment for knee osteoarthritis and provides reduction in pain and improvement in functional abilities of patients.

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NSAID-induced Gastropathy

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Introduction. Non-steroidal anti-inflammatory drugs (NSAIDS) – this is an often and widely used group of medications. These preparations predispose patients to a risk of peptic ulcer if taken as frequent as 3-4 times, with a probability risk of 25- 35%.

Therefore, the development and application of new and more effective schemes of medications helps in the prevention of NSAID-induced gastropathy of the actual problem in contemporary medicine.

Diagnostic criteria of NSAID-induced gastropathy are chronological causation with using of NSAID, without or with few symptoms current (80%), high risk of haemorrhagic manifestations (60%), sharp and frequent damage, localised in gastric antrum, absence of inflammatory shaft around ulcer, foveolar hyperplasia, mucosa, quickly effect after treatment.

Materials and methods. Our investigation was done for a period of approximately 2 months, between September and November 2016. It was conducted on patients who frequently took NSAIDS to discover NSAID-induced gastropathy, any available rheumatology pathology and those taking NSAIDS for any ground illness. We interviewed the patients and used the patient inquiry, objective examination, endoscopy examination and tests for *Helicobacter pylori*. Our sample size was fifty patients receiving hospital treatment in the rheumatology department of Kharkov Regional Hospital. The number of men and women was approximately equal, with an age range of 37-61 years old. The duration of their illness was from a minimal of 5 months to as long as 10 years. On anamnesis 7 people were peptic ulcer patients.

Results of research. It was shown that 29 patients (58%) had complaints of gastric reflux. Those presenting with pain and a feeling of fullness after eating was 26 and 34 people (52% and 68% respectively). Those with evacuation disorders numbered 33 people (66%). Eleven and twelve people (22 and 24% respectively) were noted to experience night and hunger pain . Those presenting with belching and gastric inflation complaints numbered 31 and 25 (62% and 50%) respectively. For 36 patients (72%), morbid sensibility became evident during palpation in the epigastric region. Fifteen patients (30%) were registered as having local symptoms. The positive sign of Mendel in 14 patients (28%); Uden and Laenec signs in 28 patients (56%). Local spasm of the abdominal wall was discovered in 24 people (48%). At the time of FGDS it was revealed that 12 people (24%) had erythematous and 14 people erosive gastropathy. Gastric ulcers were found in 6 people (12%) and people (4%) had duodenal erosions. With the help of urea breath test, we discovered 13 patients (26%) had *Helicobacter pylori* .According to the 4th Maastricht Consensus for all patients who took Omeprazole-20mg twice daily. For eradication of *H. pylori*, a 3-fold therapy using: Omeprazole 20mg twice daily, Clarithromycin 500mg- twice daily and Amoxicillin 1g- twice daily. After starting therapy, out of the 35 patients suffering from epigastric pain. 29 people had gastric reflux. Thirty was the number of those feeling full after food intake and 23 people did no longer feel meteorism. Twenty six patients (52%) resumed normal bowel evacuation.

Conclusions. Majority of complaints was of the GIT system, revealed in 38 patients which is 76%. Endoscopy confirmed NSAID gastropathy was in 34 people (68%). Out of these, 13 people had a positive *H.pylori* test making it 38%.

Taking proton pump inhibitors (PPIs) and gastro-muco protectors together with the complex treatment given proves a tremendous positive effect on the current illness in time of using NSAIDs.

Sypalo A.

THE RELATIONSHIP BETWEEN INDICATORS OF CARDIAC HEMODYNAMICS AND TYPES OF DYSLIPIDEMIA IN PATIENTS WITH CORONARY HEART DISEASE AND DIABETES MELLITUS TYPE 2

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Introduction. Coronary heart disease (CHD) is one of the major problems of modern cardiology in all advanced countries of the world. The diabetes mellitus (DM) type 2 is a marker of risk of diseases of the circulatory system. Today it is well known that the combined flow of CHD and DM type 2 has a negative impact on indicators of cardiac hemodynamics in this category of patients.

Materials and methods. A comprehensive examination of 85 patients with CHD and diabetes mellitus type 2 who were treated in the cardiology Department of the Kharkiv city clinical hospital № 27 as a basic medical institution of the Department of internal medicine № 2 and clinical immunology and Allergology of Kharkiv national medical University MOH of Ukraine was made. Types of dyslipidemia were determined using the hyperlipidemia classification by WHO, based on the classification by Fredrickson (D. Fredrickson). The echocardiogram study was performed according to standard methods (H. Feigenbaum, 1999) on the ultrasound unit RADMIR (Ultima PRO 30) (Kharkiv, Ukraine).

Results of research. A comprehensive examination of 85 patients with CHD and diabetes mellitus type 2 who were treated in the cardiology Department of the Kharkiv city clinical hospital № 27 as a basic medical institution of the Department of internal medicine № 2 and clinical immunology and Allergology of Kharkiv national medical University MOH of Ukraine was made. Types of dyslipidemia were determined using the hyperlipidemia classification by WHO, based on the classification by Fredrickson (D. Fredrickson). The echocardiogram study was performed according to standard methods (H. Feigenbaum, 1999) on the ultrasound unit RADMIR (Ultima PRO 30) (Kharkiv, Ukraine).

Conclusions. According to the results of our study significant changes in the indices of cardiac hemodynamics occurred more often in patients with IIb and type IV dyslipidemia, suggesting a more adverse impact of these types on left ventricular remodeling in patients with coronary heart disease and diabetes mellitus type 2.

Sytnikova N.

APPLICATION OF ORTHOKERATOLOGICAL LENSES (PARAGON) IN CORRECTION OF MYOPIA

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Introduction. Currently, orthokeratological night-time gas-permeable contact lenses (OK-lenses) have been used to change the optical characteristics of the cornea and

achieve a stable improvement of visual acuity. OK-lenses smooth the apex of the cornea and thicken it on the periphery. Thus, there is a dosed flattening in the center and a slight increase in the curvature of the cornea around the optical zone. The normal anatomy of the cornea and the integrity of its layers won't change in this case. Orthokeratology is a progressive field of ophthalmology, which is aimed not only for improving visual acuity, but also slowing the progression of myopia.

Materials and methods. 14 patients with myopia (without astigmatism) aged 10-25 years who used OK-lenses Paragon for 18 months were examined. Methods of examination: visometry, biomicroscopy, keratometry, skiascopy, β -scanning of the eyeball, determination of accommodation reserves.

Results of research. Ophthalmological examination before application of OK-lenses showed that: 1) the average visual acuity without correction was $V = 0.3 \pm 0.02$; 2) the curvature of the anterior surface of the cornea (with keratometry) averaged $7.68 \text{ mm} \pm 0.26 \text{ mm}$; 3) the accommodation reserves in the examined patients were in the range of 1.5-2.0 D; 4) the axial size of the eyeball (with β -scanning) averaged $25.2 \pm 0.7 \text{ mm}$; 5) the average level of the best corrected visual acuity was $V = 0.9 \pm 0.05$. 5 patients have low myopia; 7 patients have moderate myopia; 2 patients have high myopia. Patients used contact lenses from -0.25 to -7.00 D for 1.5 years. A survey by the end of our observation period showed: 1) the average visual acuity without correction increased to $V = 0.7 \pm 0.08$; 2) the curvature of the anterior surface of the cornea (with keratometry) remained practically in the same limits - $7.64 \text{ mm} \pm 0.22 \text{ mm}$; 3) accommodation reserves in the examined patients increased on average to 4.5 - 5.0 D; 4) the average value of the axial size of the eyeball slightly increased - $25.5 \pm 0.4 \text{ mm}$; 5) the average level of the best corrected visual acuity was $V = 1.25 \pm 0.08$. Distribution in terms of myopia remained the same.

Conclusions. Based on the results, we can conclude that the use of night OK-lenses Paragon: significantly improves visual acuity, increases accommodation reserves and contributes to a smaller elongation of the axial size of the eyeball, which significantly inhibits myopia progression.

Taha A., Sokolnikova N.

THE INFLUENCE OF INTERLEUKIN-1 β ON FORMATION OF MYOCARDIAL DIASTOLIC DYSFUNCTION IN TYPE 2 DIABETES MELLITUS

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Introduction. Type 2 diabetes mellitus (DM-2) is one of the major risk factors for formation of diastolic dysfunction of left ventricle.

The aim of the study was to determine the correlation between proinflammatory interleukin-1 β and formation of diastolic dysfunction in patients with DM-2.

Materials and methods. A total of 64 patients at the age between 35 and 65 years with moderately severe DM-2 and body mass index above 28.47 kg/m^2 were examined (1st group). The 2nd group consisted of 20 practically healthy volunteers. The following

parameters were determined in examined patients: interleukin-1 β (IL-1 β) was determined by the enzyme immunoassay, maximum peak of diastolic filling velocity during rapid filling of the left ventricle E, the maximum peak of diastolic filling velocity of the left ventricle during systole of the left atrium A, E/A ratio.

Results of research. In the 1st group E/A ratio was 0.82 and 1.4 in 2nd group and significantly differed in groups ($p < 0.05$); meanwhile, IL-1 β (ng/ml) observations 14.76 (1st group) and 8.12 (2nd group) and significantly differed in groups too ($p < 0.05$). The relationship between E/A and IL-1 β was negative ($R = -0,27$ ($p < 0,05$)) in patients of 1st group and it was absent in 2nd group.

Conclusions. The activity of proinflammatory IL-1 β increases at the beginning of DM-2 and is probably one of the pathogenetic mechanisms of diabetic complications. The received data indicates that IL-1 β may be considered as a mediator of myocardial damage and its progression marker in patients with DM-2 and overweight, which extends the diagnostic and prognostic capabilities when examining these patients.

Unaam E.

BLOOD CONSERVATION IN THE MANAGEMENT OF JEHOVAH'S WITNESSES CARDIAC PATIENTS

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Introduction. From Coronary artery bypass graft surgery to aortic valve replacement, Cardiac surgery poses challenge to the Medical staff not only because of the complexity of patient care but also because of bleeding and allogenic transfusion. This is especially true in the case of Jehovah's witnesses (JWs) who do not accept whole blood or its major components (RBCs, WBCs, Platelets or Plasma) but may accept minor fragments. Thanks to advancements in medicine and cooperative health care professionals, Jehovah's witnesses' patients and other patients who refuse to accept blood transfusion can receive adequate medical care even in complex surgery like open heart surgery.

Materials and methods. Data for this study and literature review was obtained through PubMed, NCBI and Google scholar to identify any comparative study evaluating the use of blood transfusion alternatives in JWs and allogeneic blood transfusion in patients that do not refuse blood transfusion. Key words included Blood conservation, Bleeding, Cell salvage, Cardiovascular surgery, Jehovah's witnesses.

Results of research. Ten studies comparing at least 500 JWs and 900 controls and their evaluation provides sufficient information that shows possible treatment strategies that provide safe outcomes. Strategies that have been used with success to bypass the use of allogeneic blood transfusion in JWs patients include;

- Acquaintance with the most recent clinical and ethical protocol involved in the surgical management of JWs. Contact can be made with their Hospital Liaison Committee in each country.

- Multi-disciplinary approach involving the cardiologist, Cardiothoracic Surgeon, Hematologist and anesthetist to ensure best and safest possible outcomes by making individually tailored pre, intra and post-operative plans.
- Pre and post-operative erythropoietin administration in order to increase the Hemoglobin and Hematocrit. This approach is the most favored by many studies.
- Hemoglobin of 12g/dl or greater preoperatively.
- Warm blood Cardioplegia.
- Meticulous Hemostasis during incision of soft tissue and muscles.
- Minimal use of gauze.
- Cells salvage device use in JWs patients that accept it.
- Use of fully heparin-coated Minimal extracorporeal circulation.
- Minimal laboratory blood sampling.
- Fast track extubation.

JWs and controls had similar outcomes as found in studies – Mortality rate (2.6% vs 3.6%; $p=0.318$), length of stay in the intensive care unit (1.5 days vs 2.0 days; $p=0.081$) respectively.

Conclusions. This study shows that it possible to provide adequate healthcare to JWs or those that refuse allogeneic blood transfusion. It also shows that the outcome between patients that do accept allogeneic blood transfusion and those that do not are similar, therefore Cardiac surgery in high risk patients such as JWs can be carried out safely.

Veera venkata akhil M.

ROLE OF THE SYSTEM OF MATRIX METALLOPROTEINASES AND OF THEIR TISSUE INHIBITORS IN METABOLIC SYNDROME FORMATIONS

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Introduction. Metabolic syndrome (MS) is a disease with a complex etiology, the underlying cause of which may include genetic predisposition, excessive calorie intake, low physical activity, older age, some disorders (atherosclerosis, polycystic kidney disease, liver cirrhosis, chronic renal failure, sepsis, trauma) and medications

Materials and methods. We studied 54 patients with metabolic syndrome (MS) and 28 patients with arterial hypertension (AH) associated with obesity (OB) and insulin resistance (IR). The control group consisted of 20 apparently healthy volunteers. All examined patients underwent heart ultrasound with calculation of hemodynamic parameters, investigation of MMP-1 and tissue inhibitor of metalloproteinases (TIMP-1) system.

Results of research. Results and discussion: patients with MS, all blood pressure (BP) parameters differed significantly from the respective values in the control group.

Conclusions. In patients with 4-component MS significantly higher proMMP-1 levels (4.15 ± 0.26 ng/ml) were found, not only in comparison with the control group (1.49 ± 0.63 ng/ml, $p < 0.05$), but also in comparison with patients with 3-component MS, etc. (3.13 ± 0.19 ng/ml, $p < 0.05$). TIMP-1 in this group (406.2 ± 5.5 ng/ml) differed

significantly only from the respective value in the control group (364.6 ± 4.1 ng/ml, $p < 0.05$). In patients with 3-component MS, average levels of proMMP-1 (3.13 ± 0.19 ng/ml) and TIMP-1 (392.7 ± 3.47 ng/ml) also exceeded the respective values in the control group ($p < 0.05$). Patients with AH associated with metabolic disorders were investigated. Thus, proMMP-1 in these patients was significantly higher than in the control group. In patients with AH+IR it was 2.95 ± 0.78 ng/ml, and in patients with AH+OB 3.43 ± 0.34 ng/ml. There was no statistically significant difference between these two subgroups, but there were significant differences between the average values of proMMP-1 level in patients with AH+IR and with 4-component MS (2.95 ± 0.78 ng/ml and 4.15 ± 0.2 ng/ml, respectively, $p < 0.05$). TIMP-1 levels in patients with AH+IR and AH+OB were significantly higher than in the control, 389.3 ± 2.8 ng/ml and 391.7 ± 4.6 ng/ml, respectively, $p < 0.05$

Yermak O., Sultan Basel

COPEPTIN AND TROPONIN I AS PROGNOSTIC MARKERS OF RECURRENT MYOCARDIAL INFARCTION IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION WITH OBESITY

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Introduction. Nowadays acute myocardial infarction (AMI) occupies a leading position in the structure of ischemic heart disease (IHD). Concomitant obesity is a risk factor for cardiovascular disease and a factor that contributes to the progression of IHD. The presence of severe and threatening complications requires the searching for new diagnostic markers, which determines the relevance of the study.

Materials and methods. 75 patients with AMI and obesity were examined, among whom 15 patients had a recurrent myocardial infarction (MI). Copeptin was determined using the Human Copeptin (Copeptin) ELISA Kit, Shanghai, China, Troponin I – «Troponin I» (Ham, Moscow) with an enzyme immunoassay method in the blood serum. Statistical analysis of the data was conducted using statistical software package «Microsoft Excel». Data are presented as mean values and the error of the mean.

Results of research. In patients with AMI and obesity on the 7th day of the disease, the level of copeptin was not significantly different from the concentration on day 1 ($p > 0.05$). Considering the copeptin's concentration in the 5-7-day period after myocardial infarction (MI), the patients were divided into 2 subgroups: the first group included patients with recurrent MI during the 7-day AMI period and obesity, the second group included patients with uncomplicated MI flow and obesity during the same observation period. A significant increase of the copeptin's level was detected by 33 % ($p < 0.01$) in patients with MI and obesity during the 1st week in comparison with the 1st day of MI, while in the group of patients with uncomplicated course of MI with obesity at the 7 day of the disease the level of copeptin significantly decreased by 43 % ($p < 0.01$) compared with the 1st day of the disease. A comparison of the levels of copeptin in the groups with and without recurrent MI on the 7th day showed a significant increase by 91% ($p < 0.01$) in patients with recurrent MI with obesity.

Troponin I showed a tendency to increase in patients with recurrent MI and was not significantly different in patients on day 7 of the disease and in the group without recurrent MI compared with the 1 day of the disease.

Conclusions. The presence of complications in the form of recurrent myocardial infarction in patients with acute myocardial infarction and obesity was associated with increased activity of copeptin, which makes it possible to use it as a marker of the prognosis.

Yermola A., Anpilov A.

A RETROSPECTIVE ANALYSIS OF COMMUNITY-ACQUIRED PNEUMONIA: POSSIBLE RISK FACTORS OF BILATERAL AFFECT

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Introduction. Community-acquired pneumonia (CAP) is one of the most common infectious diseases and is an important cause of mortality and morbidity worldwide. Even without a danger to life the disease is a huge social-economic problem as it requires a modern and long-term treatment.

Materials and methods. A study of 150 clinical records of CAP patients.

Results of research. We have studied 150 cases of moderate-severe community-acquired pneumonia: 131 (87%) patients with a lobar pathologic process and 19 (13%) patients with a bilateral damage. While studying the cases of bilateral pneumonia we received the following data: the average age is 51 ± 6 , male - 12 (63%), female - 7 (36%), smokers - 14 patients (73%), 15 cases with prodromal SARS. The period of time before hospitalization is 12 ± 2 days. The patients suffered from the following pathology: COPD - 8 (42%), EH - 12 (63%), IHD - 5 (26%), DM - 3 (14%). All patients suffered from fever and intoxication. After studying the results of peripheral blood analysis we found the lack of inflammatory response: leucocytes $(6,9 \pm 2,5) \cdot 10^9$, segmentonuclear neutrophils - $(58 \pm 11)\%$, band forms - $(6 \pm 3)\%$, lymphocytes - $(36 \pm 7)\%$, monocytes - $(13 \pm 5)\%$, ESR - (26 ± 6) mm/h, proteinuria (less than 1 g/l) - 8 patients (42%), the duration of hospitalization is (15 ± 2) days. As for urinary system: average GFR 83,4 ml / min / $1,73 \text{ m}^2$ (male), 73,7 ml / min / $1,73 \text{ m}^2$ (female); urea - 7 mmol / l (male), 9 mmol/l (female); creatinine - (89 ± 6) $\mu\text{mol} / \text{l}$ (male), (76 ± 4) $\mu\text{mol} / \text{l}$ (female).

Conclusions. In the majority of cases the detection of disease has started with SARS symptoms with the following deterioration and increasing of pulmonary affect symptoms. Thus, SARS is the main and major risk factor of bilateral pathologic process' dissemination in lungs in cases of CAP. The virus infection is a key point of reactivity decrement which is confirmed by typical changes of peripheral blood. Besides, such factors as delays in seeking medical care, comorbid states, smoking along with the dysregulation of immune response work towards critical dissemination of pathologic process in pulmonary tissue. All above mentioned factors lead to the necessity of increasing the duration of antibiotic treatment and hospitalization.

Zaikina T., Butrimova I., Babich A.

MARKERS OF THROMBOEMBOLIC COMPLICATIONS IN PATIENTS WITH DIABETES MELLITUS TYPE 2 DURING ONE YEAR AFTER ACUTE MYOCARDIAL INFARCTION.

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Introduction. Increased amount of thromboembolic complications among patients with diabetes mellitus and postmyocardial cardiosclerosis is higher than in patients without diabetes mellitus, but the markers of complicated course are still unknown. That’s why it is very important to establish the markers of these complications in patients with diabetes mellitus type 2 based on the estimation of endothelial damage marker – sVE-cadherin.

Materials and methods. 70 patients were enrolled in this study. They were divided in two groups: I group- 6 patients with thromboembolic complications after MI in the past; II group- 64 patients without thromboembolic complications after AMI. Levels of sVE-cadherin were evaluated using immunoassay analysis. Statistical analysis was made with the evaluation of average levels (M), error of the average level (m), reliability of differences (p) between parametrical samples.

Results of research. Average levels of sVE-cadherin in the I group were significantly higher than in II group – $1,70 \pm 0,03$ ng/ml and $1,45 \pm 0,03$ ng/ml accordingly ($p < 0,01$).

Conclusions. Development of thromboembolic complications among patients with diabetes mellitus within one year after acute myocardial infarction is associated with higher levels of sVE-cadherin that confirm negative impact of endothelial damage.

Zaikina T., Pichur G., Bozhko A.

SCD40-LIGAND AS A PREDICTOR OF RECURRENT MYOCARDIAL INFARCTION IN PATIENTS WITH DIABETES MELLITUS TYPE 2.

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Introduction. Increased frequency of recurrent myocardial infarction among patients with diabetes mellitus is higher than in patients without diabetes mellitus, but predictors of this unfavorable event are still unknown. That’s why it is very important to establish the diagnostic value of sCD40-ligand as a mediator of inflammatory reaction and platelet activation.

Materials and methods. 70 patients were enrolled in this study. They were divided in two groups: I group- 11 patients with recurrent myocardial infarction; II group- 59 patients without recurrent myocardial infarction. Levels of sCD40-ligand were evaluated using immunoassay analysis. Statistical analysis was made with the evaluation of average levels (M), error of the average level (m), reliability of differences (p) between parametrical samples.

Results of research. Average levels of sCD40-ligand in the I group were significantly higher than in II group – $3,42 \pm 0,1$ ng/ml and $2,99 \pm 0,05$ ng/ml accordingly ($p < 0,01$).

Conclusions. Development of recurrent myocardial infarction among patients with diabetes mellitus during one year after acute myocardial infarction is associated with higher levels of sCD40-ligand that confirm negative impact of inflammation and platelet activation in this process.

Zakharenkova A., Salo K.

FUNCTIONAL ESOPHAGEAL DISORDERS IN CARDIOLOGY PATHOLOGY PATIENTS

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Introduction. Over the past few years, gastroesophageal reflux disease (GERD) is gaining popularity among gastroenterological diseases. A number of cases of this pathology for not gastroenterological profile patients were recorded. They were identified during further examination of patients. Untimely recording of GERD leads to further progression of the disease and the occurrence of certain complications. Purpose: Determination of the frequency of GERD occurrence in non-typical individuals, and the study of statistical data to identify the need of ussge simple questionnaires such as GerdQ by all patients of the therapeutic profile for the timely detection of gastrointestinal pathology.

Materials and methods. A survey was carried out on the GerdQ questionnaire of 60 patients with complaints from the cardiovascular system. Age 18 years and older. Both sexes. The study was conducted on the basis of the NAMS Institute of Therapy named by L.T. Malaya. An agreement was obtained to conduct the survey. Patients independently filled GerdQ, which includes questions about their health in the last 7 days. Further, the score was calculated. GERD is established at the sum of balls from 8 and more. At the end of the study, the data of cardiac patients recorded in the questionnaires were statistically systematized. All the criteria stated in the questionnaires were taken into account.

Information that reflects the meaning of the questionnaire was collected on the basis of the results of a large international study DIAMOND (Germany, Canada, Sweden, Denmark, Great Britain, Norway). 308 patients (143 males and 165 females) who first consulted a doctor with symptoms of various diseases of the upper gastrointestinal tract.

Results of research. The average age of the cardiac department patients was 47 ± 13 years, ranging from 18 to 66 years. The sample involved a uniform number of men and women-25 (41.7%) men and 35 (58.3%) women. At the time of enrollment, women were not pregnant.

Complaints from the gastrointestinal tract were noted with such frequency:

Dysphagia - 2 patients (3.3%), pain in epigastrium - 31 (51.7%), belching - 16 (26.7%), heartburn - 45 (75%), "lump" behind the breastbone or in the throat - 1 (1.7%), loneliness-1 (1.7%), regurgitation-25 (41.7%).

Conclusions. Based on the study, we can conclude that simple questionnaires, such as GerdQ, should be introduced for all patients of the therapeutic profile, since statistical data showed frequent occurrence of GERD in patients with pathology of other organs and systems.

Zdorikova A., Kirjner M., Lebedynska K.

GLUCOSE AND ELECTROLYTE METABOLISM CHANGES IN PATIENTS WITH THYROID HYPERFUNCTION

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Introduction. According to WHO, among the endocrine dysfunctions, the dysfunctions of the thyroid gland is the 2nd most common disease after diabetes. By learning the influence that the excess of thyroid hormones has on metabolism of the patient we can evaluate the necessity of additional adjustment of the therapy of said patients.

Materials and methods. We have examined 30 patients with conditions that lead to the excess of thyroid hormones. Using the methods of glucometry and the measuring levels of electrolytes in the serum we have established the connection between the level of thyroid hormones and changes in metabolism.

Results of research. 30 patients with decreased level of TSH ($<0,4$) and elevated level of T4 ($>22,0$) were examined. 30% of patients had elevated level of glucose ($7,2\pm 0,1$). Minor elevation of sodium ($142,05\pm 0,1$) and decrease of calcium ($2,215\pm 0,1$) were obtained. However, there were no significant changes in the levels of potassium.

Conclusions. Hyperthyroid patients will be having electrolyte and glucose imbalances and should be regularly checked for serum electrolytes and blood sugar levels, thus monitoring and treating these conditions properly to prevent further complications.

Zhuravleva M., Ryndina N., Martovytskyi D., Adeleke

DEFEAT OF CORONARY ARTERIES IN WOMEN OF CLIMACTERIC PERIOD WITH CLINICAL PICTURE OF ISCHEMIC HEART DISEASE

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Introduction. Aim: to determine the volume of atherosclerotic lesions in coronary arteries in women of different age groups in the menopause period with clinical manifestations of coronary heart disease.

Materials and methods. A retrospective study of 200 case histories and coronarograms of postmenopausal women was conducted.

This study group was divided according to the age criterion. A group of 40-45 years old included 11 (5.5%) patients, a group of 46-50 years old - 37 (18.5%) patients, a

group of 51-55 years old - 65 (32.5%) patients, a group of 56-60 years - 87 (43.5%) of patients.

Results of research. Hemodynamically significant stenosis was detected in 5 (45.4%) patients in the 40-45 year old group, 13 (35.2%) in the 46-50 year old group, 30 (46.2%) in the 51-55 year old group, 45 (51.7%) patients of the group of 56-60 years old. Hemodynamically insignificant stenosis was detected in 3 (27.3%) patients of the group of 40-45 years, 8 (21.6%) patients of the group of 46-50 years, 10 (15.4%) patients of the group of 51-55 years, 16 (18.4%) of patients of the group of 56-60 years. Intact coronary arteries were detected in 3 (27.3%) patients in the 40-45 year old group, 16 (43.2%) in the 46-50-year-old group, 25 (38.4%) in the 51-55-year-old group and 26 (29.9%) of patients of the group of 56-60 years.

Conclusions. In the climacteric period, the incidence of clinical manifestations of coronary heart disease is higher in patients older than 50 years compared with younger women. The degree of atherosclerotic lesion of coronary arteries does not affect the severity of the clinical picture of coronary heart disease in women older than 40 years.



SURGERY AND TRAUMATOLOGY



**INTERNATIONAL SCIENTIFIC
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Ajayi E.

SUBSTANTIATION OF PLACE AND DEEPNES OS SPHINCTEROTOMY IN PATIENTS WITH CHRONIC ANAL FISSURE DEPENDING ON PERSONALITY OF ANAL SPHINCTER ANATOMY

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Introduction. To determine the location and extent of sphincterectomy in patients with chronic anal fissure, depending on the individual structure of the sphincter.

Materials and methods. Study involved 199 patients aged 18 to 63 years, including 85 men and 114 women. All patients were divided into the main group (n = 95) and the comparison group (n = 104). In the comparison group patients after excision, surgeons determined the location and depth sphincterotomy. To determine thickness of the sphincter, the front, back and side portions of the internal and external anal sphincter an ultrasonic sensor apparatus 6-8 MH was used. To assess the degree of incontinence Wexner scale was used. The degree of probability of the difference between the average values were determined using Student test.

Results of research. 1 month. after surgery in 2 ($2,1 \pm 1,5\%$) patients of the main group and in 13 ($12,5 \pm 3,2\%$) patients of comparison group, incontinence 1-2 degrees ($p < 0,05$), hypertonicity of AUd the main group ($6,3 \pm 2,5\%$) and the comparison group ($3,8 \pm 1,9\%$) ($p > 0,05$). In $6,3 \pm 2,5\%$ (main group) and $15,4 \pm 3,5\%$ (comparison) violation of the act of defecation ($p < 0,05$). After 6 months, Incontinence in the late postoperative period comparison group ($10,6 \pm 3,0\%$), study ($1,1 \pm 1,0\%$) ($p < 0,05$). chronic paraproctitis (primary ($2,1 \pm 1,5\%$) and the comparison group ($5,8 \pm 2,3\%$) ($p > 0,05$). Relapse (main group ($6,3 \pm 3,5\%$) ($12,5 \pm 3,2\%$ - the comparison group) ($p < 0,05$). Anal stricture study group ($2,1 \pm 1,5\%$), the comparison group ($9,6 \pm 2,9\%$) ($p < 0,05$). Hypertonicity of sphincters Main group ($2,1 \pm 1,5\%$ and comparison group $1,0 \pm 1,0\%$) ($P > 0,05$)

Conclusions. It was found that in men, hypertrophy occurs in the rear portion of the internal sphincter from 6 mm to 11.8 mm ($p < 0,05$) significant thickening of side portions of 4.1 mm to 7.6 mm ($p < 0,05$). In women, rear portion of the internal anal sphincter from 5.4 mm to 11 mm, atrophy of the lateral portions of the external sphincter from 17.1 mm to 14.1 mm ($p < 0,05$). The use of different surgical methods allowed a reduction in the frequency of early postoperative complications such as incontinence, from 12.5 to 2.1%, the violation of the act of defecation - from 15.4 to 6.3%, postoperative wound fester - from 11.5 to 2.1%.

Arutiunian A.

APPLICATION OF ENDOSCOPIC RETROGRAD BILIARY STENTING IN THE TREATMENT OF MALIGNANT OBSTRUCTIVE JAUNDICE

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Introduction. Introduction. Presently the most difficult in abdominal oncology are questions about the timely diagnosis and rational treatment of obstructive jaundice (OJ). OJ leads to a rapid rise of liver failure (LF) and may cause other serious complications, such as infection. The main task in the treatment of these patients is elimination of OJ, especially when on her background develops intoxication and LF.

Materials and methods. Materials and methods. In the period from 2013 to 2015 ERBS was performed in the clinic as a definitive treatment in 64 patients with inoperable malignant diseases of hepatopancreatoduodenal zone, which were complicated by OJ. All patients were divided into 2 groups of 32 people. In the first group of patients was set plastic stents with diameter 8,5-10 Fr. In the second group were used coated SMS with diameter 10 Fr. The average age of the patients was $67,3 \pm 8,1$ years. Women – 47 (73,4%), men – 17 (26,6%). The causes of OJ were the following diseases: pancreatic head tumor in 29 (45,4%) patients, tumor of the papilla Vater in 9 (14%), bile duct tumor in 9 (14%), tumor of the gallbladder – 7 (11%), lymph node metastases hepatoduodenal ligament with compression of the bile duct – in 10 (15,6%). In definition of the stage of the tumor process was used TMN classification in the edition 2009. During the first two days of receipt was made diagnosis of nature, level and cause of biliary tract occlusion. Evaluation of LF was carried out according to the classification of Child-Pugh (1972). 57 (89%) patients had compensated and subcompensated degree of LF.

In the first group of patients was set plastic stents with a diameter 8,5-10 Fr firm Wilson-Cook, Boston Scientific; the second group used the SMS diameter of 10 Fr Hanarostent, Walstent.

Results of research. Results of research. In all cases, the installation of biliary stents performed after prior endoscopic papillosphincterotomy (EPST). Complications in group 1 were as follows: acute pancreatitis – 2 (3,1%), bleeding from the area EPST – 2 (3,1%), stent migration – 3 (4,7%). Total – 7 (10,9%). Complications in 2 group were as follows: acute pancreatitis – 3 (4,7%), acute cholecystitis – 1 (1,5%), stent migration – 1 (1,5%). Total – 5 (7,7%). Postoperative mortality was not in both groups. After biliary stenting in all patients OJ disappeared or substantially resolved, the average bilirubinemia before surgery was in group 1 – $212,2 \pm 76,2$ $\mu\text{mol/L}$, in group 2 – $206,1 \pm 75,2$ $\mu\text{mol/L}$. Duration of jaundice period before the primary drainage in 1 group – 11 ± 5 days, in group 2 – $13,5 \pm 7,3$ days. All patients were discharged from the hospital with their inoperable status. In connection with the implant occlusion and recurrence of OJ repeatedly hospitalized 16 patients in group 1 and 7 patients in the 2 groups. The average life of plastic biliary stents function was $109,9 \pm 101,2$ days (3,5 months); SMS function term was $256,5 \pm 90,5$ days (8,5 months).

Conclusions. 1. ERBS of bile duct with malignant tumors of pancreatobiliary area is an effective method of elimination of OJ. 2. The use of SMS was a full-fledged

alternative to palliative surgery with formation biliodigestive anastomosis in the treatment of malignant OJ.

Balchunas I.

INTRACRANIAL ARTERIOVENOUS FISTULA WITH OPHTHALMOLOGICAL MANIFESTATION

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Introduction. Nowadays it is well known the classic ophthalmological symptoms and signs of the intracranial arteriovenous fistula, but great variety of the anatomical variants of the fistula commonly complicate differential diagnostics of the orbital lesion.

Materials and methods. The aim of this paper is to present the case of 72 years old female with unusual case of intracranial dural arteriovenous fistula in the area of the right orbit with ophthalmological manifestation. Case study. Besides standard ophthalmological examination B-scanning («Vu MAX II» 10 MHz) of the right orbit and selective angiography (iodixanol 49%) have been carried out as well.

Results of research. Clinical examination revealed the following: proptosis 2 mm, restricted right ocular motility, periorbital edema, chemosis with dilatation of conjunctival vessels, decreased visual acuity (6/10), concentric narrowing of the visual field, elevated intraocular pressure, no afferent pupillary defect. Fundus exam revealed paleness and glaucomatous excavation of optic disc cap, dilatation of retinal vessels. Any pathological changes of ENT and maxillofacial areas, respiratory systems, any history of periocular trauma or surgery, any history of endocrine or oncological diseases were not detected. B-scanning visualized convolutive tubular anechogenic formation in the superior-medial area of the orbit (diameter 2,03-2,09 mm), enlargement of the levator and upper rectus muscle, local edema of the orbital cellular tissue. Some intracranial pathological process was suspected and selective angiography were carried out. Opacification of the right external carotid artery detected infilling of the right superior orbital vein from terminal branch of the right middle dural artery.

Conclusions. This case presents that sometime intracranial vascular disorders may have unusual ophthalmological manifestation.

Belitsky I.

RARE CASE OF THE SUBPERIOSTEAL ABSCESS OF THE LATERAL ORBITAL WALL

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Introduction. The aim of this paper is to present the case of 36 years old female with unusual course of subperiosteal abscess of the right orbit.

Materials and methods. Case study. Besides standard ophthalmological examination helical computer tomography (HCT), magnetic resonance imaging (MRI) and subspecialty consultations have been carried out as well.

Results of research. Clinical examination revealed the following: normal visual acuity, no visual field defects, normal intraocular pressure, no afferent pupillary defect, periorbital edema and erythema, tenderness to palpation, proptosis (4 mm), restricted right ocular motility. Slit lamp exam showed chemosis with conjunctival injection. Dilated fundus exam was unremarkable. Any pathological changes of ENT and maxillofacial areas, respiratory and cardio-vascular systems, any history of periocular trauma or surgery, any history of endocrine or oncological diseases were not detected. Body temperature was 37,3° C. White blood cell count $15 \times 10^9/l$ with 84% neutrophils. HCT visualized express enlargement of the lateral rectus muscle. Myositis of the lateral rectus muscle was diagnosed. Broad-spectrum antibiotics ex juvantibus and nonsteroidal anti-inflammatory medicine were prescribed. 5 days later the patient complained on rapid click in the area of her right orbit after that she felt pain relief. MRI visualized detachment of periosteum of the lateral orbit wall with intracranial invasion through superior orbital fissure that caused the patient to be transfer to the neurosurgical department and combined surgery to be applied (subperiosteal orbitotomy with drainage and osteoplastic trepanation of the skull with removing of frontal region empyema). After 27 days staying in the hospital the patient was discharged with complete recovery.

Conclusions. This case presents that sometime acute disease may have torpid course and not always clear tomographic symptomatology implies definitive diagnosis.

Bilchenko S., Bausov Y.

ANALISIS OF COGNITIVE CHANGES AFTER THE OPERATION

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Introduction. The research was conducted in surgical departments with different profiles in Prof. Meshchaninov Kharkov City Clinical Emergency Hospital. The operation was conducted with general multicomponent anesthesia, artificial respiration using Propofol and Phentanyl, Thiopental Sodium and Phentanyl.

The aim of this research is to study the degree and structure of cognitive changes after general anesthesia among different age groups of patients with acute surgical pathology before the surgery and on the 1, 7, 30 day of postoperative period compared to preoperative stage..

Materials and methods. Method of A. R. Luriy, scale FAB, scale MMSE.

Results of research. On a scale MMSE young and middle age patient's indicator was by 9.0% below normal, elderly patient's indicator was by 23.3% below normal before the operation. On a scale FAB young and middle age patient's indicator was by 5.5% below normal, elderly patient's indicator was by 16.6% below normal. On method of A. R. Luriy young and middle age patient's indicator was by 15.0% below normal, elderly patient's indicator was by 40.0% below normal.

According to these results the scheme “Correction of postoperative cognitive dysfunction” was designed. And we got next results.

On the scale MMSE young and middle age patient’s indicator was decreased by 6.5% on the first day and normalized on the 7th day. Elderly patient’s indicator was decreased by 16.7% on the first and 7th day and recovered to the preoperative meaning on the 30th day. On the scale FAB young and middle age patient’s indicator was decreased by 5.6% compared with meaning before the operation, recovered to the preoperative meaning on the 7th day and normalized on the 30th day. Elderly patient’s indicator was increased by 9.8% compared with meaning before the operation on the 1st and the 7th day and recovered to the preoperative meaning on the 30th day, but was below standards on 22.2%. By method of A. R. Luriy young and middle age patient’s indicator was decreased by 24.6% and recovered to the preoperative meaning on the 7th day. Elderly patient’s indicator was substantially decreased and partially resumed on the 30th day.

Conclusions. Cognitive changes that we got during the research among different age groups of patients with acute surgical pathology after the operation using general anesthesia allowed to form the way to correct them. Elderly patients got Cytoflavin in 30 minutes before the ending of operation, after 12 hours and everyday during 5 days. Young and middle age patients got Citicoline by the same scheme. Treatment improved state of cognitive function and recovered to the preoperative level in short terms.

Bilousova M., Ievtushenko D., Ievtushenko O., Kholosheva D.

LOCAL ANTISEPTICS IN PATIENTS WITH SSTI

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Introduction. Infections of skin and soft tissue (SSTI) is a significant problem of modern surgery.

Materials and methods. Analysis of treatment of 30 patients with (SSTI) provided. , povidone-iodine used as topical antiseptic. Microbiology specimens obtained by tissue biopsy and planimetry of the affected area were analyzed. Results evaluated on 7-10 day of treatment.

Results of research. In patients with mild and moderate SSTI after 7-10 day therapy (povidone-iodine) affected area size decreased significantly in all cases. In patients with purulent SSTI - 72,8%, $p < 0.05$. In patients with erysipelas - 82,7%, $p < 0.05$). In patients with SSTI Gram + and Gram – flora commonly found, with prevalence of *St. aureus* and *St. haemolyticus*.

Conclusions. Povidone-iodine is safe and effective in patients with SSTI.

Bortnik K., Kitchenko S., Yaremko I., Babaeva A.

TACTICS OF TREATMENT OF PANCREATIC FISTULAS

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Introduction. Treatment of external pancreatic fistulas still remains as an actual problem. A significant increase of the number of patients with this pathology is caused both by the increasing frequency of severe pancreatitis, and the increasing of the surgical activity and volume of the operations on the pancreas and accompanying complications for them.

Routine esophagogastroduodenoscopy (EGD) and colonoscopy can often be performed with minimal or moderate sedation; these sedation practices vary widely throughout the world. In the United States, more than 98% of EGDs and colonoscopies are performed with sedation. On the other hand, in many European and Asian countries, routine EGD is often performed under pharyngeal local anesthesia without intravenous sedation or general anesthesia, and colonoscopy is performed without sedation.

Materials and methods. A total of 24 patients with external pancreatic fistulas were examined. Of them, males 17, females 7. The ages of our patients ranged from 28 to 70 years. Tactics of treatment was determined by the degree of damage to the main pancreatic duct (MPD), which were determined of the fistulography or of the retrograde pancreatography by the results. Complete damage to EPF was detected in 13 patients, in 4 whom it has arisen after the performed pancreatoduodenal resection. Incomplete marginal damage of the duct was detected in 5 patients after pancreatic necrosis with the outcome in the suppuration cyst of the pancreas. An EPF after abdominal trauma was noted in 3 patients, in 2 patients after longitudinal pancreaticojejunostomy and in 1 patient the terminal EPF was formed after acute pancreatitis of the tail of pancreas. The duration existence of fistula from 2 months to 1 year.

Results of research. Recovered after conservative therapy has happened in 8 patients, in whose had incompletes EPF, which closed during for 1 – 1,5 months. The protocol of conservative therapy included: anti-inflammatory therapy, prevention of maceration of the skin, antisecretory therapy (H2 Blockers and proton pump inhibitors, sandostatin or octreotide), enzyme replacement therapy. Two patients with incompletes EPF were recovered by a sealing method, the sealing was produced with silicone elastomer (“pancreasil”). 16 patients were operated: on 9 of them had produced internal drain, on 4 - had produced intraperitoneal fistulojejunostomy and on 3 of them had produced left-sided pancreatectomy with fistula excision.

Conclusions. The choice of method of EPF treatment depends on the degree of damage to the MPD. Prevention of EPF, primarily depends on the pathogenetically substantiated conservative therapy of acute pancreatitis and improving of the technique of surgical operations on the pancreas.

Chepeliuk O., Ivakhnenko D., Bordun A.

THE MEANING OF TATTOOS IN THE ARTISTIC, FORENSIC AND CLINICAL ASPECTS

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Introduction . In forensic medicine, tattoos are used as an identification sign. The Department of Forensic Medicine, Medical Law of KhNMU has collected a large archive of photographs of tattoo drawings, some of them for more than a hundred years. The photo archive of the tattoo was not systematized and there was a need for their analysis with subsequent classification and the possibility of its adaptation in clinical practice. Since, it became interesting to compare the presence and nature of the pattern of the tattoo in patients and the features of the injuries they received, and their further recovery.

Materials and methods . Archive database of photos of tattoos of The Department of Forensic Medicine, Medical Law. Hon. Prof. M.S. Bocarius; 121 photograph of patients' permanent tattoos of polytrauma intensive care unit of Prof. Meshchaninov Kharkov City Clinical Emergency Hospital in 2013 - 2016; 98 case histories (2013-2016); 68 brain MRIs; Encyclopedic atlases of tattoos.

Results of research . After analyzing the materials of the archive database of tattoo photos of the Department of Forensic Medicine, Medical Law, we classified the following tattoos: 1) by localization: hands, forearms, back, chest, neck, thighs, knees, shins (and so on); 2) by type: permanent, temporary; 3) By color: colored, black and white; 4) In content: ritual, patriotic, decorative, army, criminal world, portrait, love. This classification was applied to the existing database of tattoo photos of polutrauma intensive care unit patients in 2013 - 2016. The following statistics were formed. In 2013-2016, 317 patients stayed on treatment, of which 98 patients were permanent tattoos, 23 of them women, and 75 men. According to the age categories, the distribution of tattoos is as follows: up to 18 years old, 8 patients, 18-35 years old - 28, 35 - 60 years old - 48, over 60 years old - 14.

We also examined the medical records of the subjects and found the following pattern: men of 35-60 years with tattoos of the criminal world are more likely to be hospitalized with traumatic brain injuries, knife and bullet wounds, as well as severe body injuries inflicted by third parties, burdened infectious anamnesis (hepatitis B, C, TB, HIV, etc.), due to their asocial and criminal way of life.

Conclusion. As a result of the study, a classification of tattoos was made: 1) localization; 2) type; 3) color; 4) content: ritual, patriotic, decorative, army, criminal world, portrait, love. This classification has been adapted by us to clinical cases and, taking into account the characteristics of the victims, can help predict the severity of the trauma and its outcome.

Diakivnych A.

SURGICAL TREATMENT OF PATIENTS WITH LOCAL TISSUE INJURY AFTER EXPOSURE TO RADIATION

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Introduction. Currently, the rate of development of radiation damages makes up to 15 % of all patients who underwent radiation therapy worldwide. Despite the introduction of new techniques, optimizing duration and a dose of the treatment, developing methods for protecting tissue surrounding the radiation aimed areas, the issue of frequency and severity of side effects on skin and healthy tissue is far from being solved.

Materials and methods. During period 2013 – 2016, in a department of radiation pathology and rehabilitation, and in an oncosurgery unit of GE “Institute of Medical Radiology of S.P. Grigoriev” NAMS of Ukraine, 15 patients (100%) with ulcers have been treated and the results of the treatment have been studied. The size of the injured areas differed from 2 to 8 cm. Before choosing surgical intervention, patients were monitored on Prolongatio morbi. Bacteriological analyses were also made for the patients suffering from radiation ulcers.

Results of research. For the first group of patients (6 or 40%), surgical treatment of which was done by removing the damaged area and using the surrounding healthy tissue to close the wound, the main criteria was the plasticity of the surrounding tissue and the smaller size of the damage (smaller than 4cm in diameter). For these patients, the method was: making an incision and removing the damaged area, repairing the edges of the wound and suturing. In four out of six cases patients made a full recovery of the damaged area, in other two they needed the second procedure after partial necrosis. Altogether, all the patient’s results were satisfactory.

In the second group (4 patients, 27%), the method of split-thickness skin grafting was used. This involved removing a thin layer from a healthy part of the body (the donor section), fitting it to the wound size and suturing using simple interrupted stitches. Results were satisfactory for 3 patients, in one, infection followed and transplant rejection occurred.

In the third group (5 patients, 33%), the method of full-thickness skin graft was used, in which the epidermis and the entire thickness of the dermis of the surrounding areas were placed over the wound. Specifically, the first step after complex pre-operative procedure, the graft is held in place after excision, to prevent the accumulation of fluid. Second step, removing the damaged area and then placing the graft using vertical or horizontal mattress stitching. Results were satisfactory for 4 patients in this group, in one case patient suffered from transplant rejection.

Conclusions. So, while using different methods for surgical procedures, results were satisfactory for 87 % of the patients and unsatisfactory for 13 %. The main risks of the procedure are: necrosis and transplant rejection.

Dolgov V., Kotlyar V.

EXPERIENCE OF SURGICAL TREATMENT OF ADHESIVE DISEASE OF PERITONEUM WITH INTRAOPERATIVE USE OF DEFENSEAL PREPARATION

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Introduction. According to the literature, after surgical operations on the abdominal organs in 70% of patients develop a commissural disease with the subsequent occurrence of acute adhesive obstruction of the intestine (OAAOI). The frequency of recurrence of OAAOI reaches 60-70%, and with repeated operation - 85%.

To study the immediate results of using the drug "Defensal" in combination with enterolysis, intubation of the small intestine in the surgical treatment of patients with adhesions.

Materials and methods. In the clinic for the period from 2012-2016. 28 patients were treated. Of these, women - 16 (56.3%), men - 12 (43.7%) patients. The mean age of the patients was 51.2 years \pm 7.1. All patients are divided into two groups: the first (control), consisting of 17 patients who underwent surgical treatment with conventional methods of treatment, and the second (main) group - 11 patients who underwent operative treatment with the drug "Defensal". Patients with grade II and grade III diabetes were taken to the main and control groups.

Results of research. The results of the treatment were evaluated in terms of 3-7-14-30 days - 3 months after the operation. The criterion for evaluation was directly the function of the gastrointestinal tract (GIT). Also in both groups, the duration of inpatient treatment, the duration of rehabilitation and the immunological status of patients were estimated. In patients of the main group, peristalsis recovered faster than in the control group by 1.2 ± 0.25 days. It was noted that the function of the gastrointestinal tract was restored earlier than in the control group with a difference of 2.1 ± 0.13 days. In the peripheral blood of patients of both groups in the first three days was characterized by the same tendency to decrease the relative number of T-lymphocytes. CD3 in the latter, reliably, from 7 days differed by a decrease in CD3. In the control group, $p < 0.05$, which indicates a decrease in the activity of the inflammatory process. When determining the level of B-lymphocytes, no statistically significant differences were found in patients of both groups. In the main group, the phagocytic activity of neutrophils is reliably reduced from 3 days ($p < 0.05$). In patients of the main group, the parameters of clinical blood analysis improved faster than the control group ($p < 0.05$).

Conclusions. 1. The use of an antiphagic multifunctional "Defensal" solution intraoperatively for the treatment of adhesive disease in combination with enterolysis and intubation of the gut is effective and promotes an earlier restoration of peristalsis, restoration of the function of the gastrointestinal tract and a decrease in the length of stay in the hospital from 9 ± 0.5 to 7.5 ± 0.5 days.

2. Treatment of OAAOI with intraoperative using a solution of "Defensal" forms an adequate immune response of the patient in the postoperative period and can reduce the risk of developing a commissural disease in the future.

Firsyk T.M.

TACTICS OF TREATMENT OF PATIENTS WITH ANORECTAL ABSCESES

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Introduction. Anorectal abscess is an acute purulent inflammation of the perirectal zone. Although acute inflammation does not necessarily lead to fistula formation of rectum, but the rate of recurrence of the disease is 17 to 87%. Given the high incidence of recurrence of the disease it is necessary to develop algorithm of treatment. The tactics of treatment should be based on knowledge of anatomy, an understanding of the etiology of infection perirectal zone and a thorough study of the fistula. The aim of this work was to study the results of treatment of patients with anorectal abscesses. Among the patients were persons who applied to the hospital for the first time and cases of recurrent disease. The task of this work was to develop an optimal treatment algorithm in order to reduce the risk of recurrence of this disease.

Materials and methods. 52 patients were analyzed for the period 2013-2014 years. Of the total number of patients 34 people went to the hospital for the first time and 18 patients who had previously been operated on of this disease. All patients underwent a detailed history and physical examination, a puncture of the abscess with a microbiological examination of purulent contents. A prerequisite for treatment was the contrast of the abscess cavity, which made it possible to detect the internal foramen of the fistule. Surgical treatment for all patients was performed on the day they were admitted to the hospital. Surgical treatment included not only the opening and draining of the abscess, but also the elimination of the internal opening of the fistula with anal crypt.

Results of research. Having analyzed the results of treatment of patients using a certain algorithm of treatment, it can be suggested that this significantly reduces the risk of recurrence of the disease in the next 3 years after the surgical treatment.

Conclusions. Use of a specific algorithm for treating patients is appropriate, since it allows not only to provide quick and qualified help, but also to reduce the risk of the disease.

Fursov I.

FEATURES OF MEIBOMIAN FATTY ACIDS COMPOSITION AMONG PATIENTS WITH MEIBOMIAN GLAND DYSFUNCTION AFTER HYDROCORTISONE AND OFLOXACIN TREATMENT

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Introduction. To compare the change of fatty acid composition in patients suffering from meibomian gland dysfunction (MGD) after treatment with 0.1 % hydrocortisone ointment or 0.3 % ofloxacin ointment.

Materials and methods. Under supervision there were 34 patients with MGD. The first group of patients (16 individuals) were treated with 0.1 % hydrocortisone ointment (applying the ointment on the edge of eyelids three times a day for 10 days) associated with lid hygiene, the second group of patients (18 individuals) were treated with 0.3 % ofloxacin ointment hydrocortisone (applying the ointment on the edge of eyelids three times a day for 10 days) associated with lid hygiene. We collected meibomian oil before and after treatment. Meibomian fatty acids were directly transmethylated and analyzed by gas chromatography and spectrometry.

Results of research. The meibomian fatty acid composition was changed after treatment in the both groups. The branched-chain fatty acid (isoC20) significantly decreased from 2,3% to 0,9% after hydrocortisone treatment and to 0,8% after ofloxacin treatment. The saturated fatty acid C16 increased from 2,4% to 4,7% after hydrocortisone treatment and to 4,5% after ofloxacin treatment. Changes of meibomian fatty acids composition lead to clinical improvement among patients of the both groups.

Conclusions. This study showed the significant decrease of the branch chain fatty acid (isoC20) and significant increase of the saturated fatty acid C16 in patients with MGD after local hydrocortisone or ofloxacin treatment associated with lid hygiene. But taking into consideration the necessity of elongate treatment of MGD antibiotics administration seems to be limited.

Garyuk T.

FORENSIC MEDICAL IMPORTANCE OF RINOMANOMETRY

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Introduction. The objectification of the expert criteria is one of the relevant tasks of modern forensic medicine. In forensic practice, it is uncommon to assess the extent of closed injuries of the nose, which causes some difficulty in cases complicated by impaired nasal breathing. Currently, objective forensic-medical criteria for this type of injury is not established, therefore, the purpose of our work was to find the possibility of the objectification of one of the main qualifying signs of trauma of the nose-dysfunction of nasal breathing.

Materials and methods. The material of the study consists of 18 individuals, male and female, who received a closed injury of the nose under different circumstances and got a consultative examination at the 30-th City Clinical Specialised Hospital of Kharkov. Among the research methods we have chosen the method of collecting medical history data using a visual analog scale (VAS), and a method of rhinomanometry, which allows not only to assess the degree of air permeability of the nose objectively, but also to differentiate the cause – either due to mechanical obstruction or as a result of vasomotor changes in the mucous membrane. In the course of work, in each case, we conducted the collection of anamnestic data and determined the degree of air permeability of the nose with the help of Rhinomanometer ‘Optimus’, both before the treatment or surgical intervention and after the treatment after 1 month (control tests). According to this

method, the degree of impairment of nasal breathing is qualified by the value of nasal resistance R150 and is evaluated separately for each side of the nose.

Results of research. The study showed that before the treatment, and in some cases before the surgery, in all 18 cases, the degree of impairment of nasal breathing ranged from 0.4 to 10.7 PA/cm³/s at 150 PA, which corresponded to mild, moderate and severe level of disturbance of respiration. After re-conducting rhinomanometry, 1 month after treatment, in all 18 cases the degree of violation of external respiration was in the range from 0.2 to 0.5 PA/cm³/s at 150 PA, which corresponds to the absence or mild degree of violations of the external breathing and indicates the effectiveness of the treatment. In cases of closed injuries of the nose without bone fractures, duration of treatment was up to 6 days, in cases with fractures of the nasal bones up to 19 days.

Conclusions. Consequently, rhinomanometry is the main and most clinically relevant method of the objectification of air permeability of the nose, which allows to use it in forensic practice for the evaluation of the severity of injuries.

Guyvan I., Gardashova J.

SURGICAL TACTICS WITH THORACOABDOMINAL WOUNDS

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Introduction. Thoracoabdominal wounds are one of the heaviest damages, as a damage of two contiguous cavities takes place. A frequency of such damages 17% from all wounds of abdominal and pectoral regions.

The aim of this work is a research of the choice of surgical tactics at left- and right-side wounds.

Materials and methods. The basis of the work performed at the Department of Surgery No. 1 of KhNMU, based on the department of traumatic shock on Institute of general and urgent surgery of the National academy of medical sciences of Kharkiv are the results of a survey

112 patients aged 14 to 71 years with thoracoabdominal wounds.

Of these, men were 107 (95.5%) and women - 5 (4.5%).

Results of research. Right-side thoracoabdominal wounds meet in 20% from the number of all thoracoabdominal wounds, that in 4 times less than left-side wounds. From the organs of abdominal region mostly, a liver is damaged in 90-95%, If a wound is through, then there is also a damage of the urinary bladder in 7% cases. At damages by the object of large length are possible damages of the postcava, overhead pole of the right bud, right bend of thick bowels, stomach, pancreas, duodenum.

At thoracoabdominal wounds on the left, that meet in 80% cases, more often are damages of the spleen that can be one of the dangerous sources of bleeding; thin bowel, thick, left bud, stomach. In force of difference of the pressure in both serosal cavities organs of the abdominal region, especially at left-side damages, comparatively easily move in the cavity of the pleura. It, in turn, results in the additional prelum of lungs and displacement of organs.

At left-side wounds in 19% of cases performed thoracotomy with laparotomy translatable, 37% of laparotomy, 8% for thoracotomy and laparotomy, 5%-laparotomy with thoracotomy. When right side toracoabdominale parentsthe in 8% of cases is translatable thoracotomy with laparotomy, 16% of laparotomy, a 1.5%-thoracotomy with laparotomy and in 3% of laparotomy with thoracotomy.

Carrying tricolporate one incision is the method of choice only in certain cases, mainly in right side wounds with damage to hard to reach areas of the liver (especially when you need a resection), Vena cava inferior, as this method has a complicated postoperative period.

Conclusions. Surgical tactics has its differences with the right - and left damage. The sequence of surgical interventions is based on the prioritization of bleeding into the peritoneal or pleural cavities.

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ENDOSCOPIC STENTING FOR THE PURPOSE OF DECOMPRESSION OF THE BILE DUCTS IN TUMOR DISEASES OF THE HEPATOBILIARY SYSTEM

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Introduction. There is an increase in the number of patients with malignant neoplasms of the EEC organs, accounting for about 15% of all malignant tumors of the digestive tract. The use of endoscopic transpapillary decompression in this pathology allows to reduce the number of postoperative complications and lethality in comparison with a one-stage operation performed at the height of intoxication.

Materials and methods. The results of treatment of 34 patients with tumors of EADD, men - 19, women - 15 were analyzed. All patients were examined according to the generally accepted algorithm.

Results of research. Among the prostate tumors, the lesions of the head of this organ predominated in 8 patients; Malignant neoplasms of the body / tail of the prostate were found in 2 patients. The second most frequent tumor of the organs of BDPA was BDS cancer - 5 cases. In 14 patients we used plastic biliary stents of different lengths and diameters from 7 to 12 Fr. In 4 cases self-expanding metal stents 8 and 10 mm in diameter were used. M.I. Tech. Execution of adequate endoscopic stenting of the bile ducts was not possible in 4 patients: in 3 patients it was impossible to lead a conductor above the level of occlusion, in 1 patient it was not possible to hold a stent through the proximal biliary ducts because of the rigidity of the tumor stricture. Endoscopic biliary drainage was the final method of palliative treatment of bile duct obstruction in 2 patients (the presence of distant metastases).

Conclusions. Preliminary stenting allowed to prepare patients in the optimal way for surgical treatment, including radical, minimizing the risk of intra- and postoperative complications.

Holovko A., Robak V., Drana L., Fokina D.

COLON PREPARATION FOR ENDOSCOPIC EXAMINATION

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Introduction. The problem of chronic diseases of the colon is one of the most difficult in modern proctology. The main method of examination of the colon – colonoscopy – requires special preparation of the colon that includes compliance with diet and quality of cleaning.

The purpose of our study was to compare the quality of preparation of the colon to endoscopic examination using different methods.

Materials and methods. There is a comparative analysis of methods of preparation of the colon for endoscopic examination from 75 patients with suspected chronic disease of the colon. All of the patients assigned to the same diet. The first group – preparation with cleansing enema, the second group - cleansing enemas in combination with lactulose, the third group – the preparation with macrogol 3350. The quality of the preparation of the colon was assessed by objective (purity of colon) and subjective (patient friendly) criteria.

Results of research. In the first group clean intestine detected in 4 (16%) patients, blots of feces - in 20 (80%) patients, bowel was unfit for the test in 1 (4%) patient. Preparation of colon with enema comfortable believed for 3 (11%) patients, uncomfortable – for 21 (85%) patients, very uncomfortable and painful – for 1 (4%) patient.

In the second group clean intestine detected in 9 (36%) patients, blots of feces – in 16 (64%) patients. The procedure comfortable believed for 3 (13%) patients, uncomfortable – for 20 (82%) patients, very uncomfortable and painful – for 2 (5%) patients.

In the third group, clean intestine detected in 23 (92%) patients, blots of feces – in 2 (8%) patients. The procedure comfortable believed for 18 (71%) patients, uncomfortable – for 7 (27%) patients.

Conclusions. 1. Early diagnosis and examination of patients with suspected chronic diseases of the colon allows to detect pathology and hold it an adequate correction.
2. For the preparation of the colon to the research application of makrogol 3350 is optimal and the most comfortable for the patient.

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LOCAL HEMOSTASIS IN THYROID SURGERY

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Introduction. Surgery on the thyroid gland may be accompanied by large intraoperative bleeding as a result of its blood supply is intensive. Hemostasis during surgery suture material it results in high costs, lengthening the time of surgery, may develop implantation infection, increases the risk damage to the recurrent laryngeal nerve (RLN). Purpose: study the effectiveness of local hemostasis device Electrical high-EK-300M1 in thyroid surgery.

Materials and methods. The study was conducted on 146 patients with thyroid disease. The age of patients was 14 to 82 years ($50,0 \pm 12,6$ years). The first group of patients (71) hemostasis was performed traditional suture material. In the second group (75 patients) included patients who hemostasis was carried out using Electrical high-EK only with ligation superior thyroid artery. All patients were examined before surgery (ECG, fluorography, TSH, T3, T4, ATPO, clinical and biochemical examination) examined endocrinologist, cardiologist, otolaryngologist.

Results of research. Patients of the first group (71) thyroidectomy (TE) performed in 52 cases hemistrulectomy (HSE) - in 19. Patients of the second group (75) TE was performed in 45 patients, HSE – in 30. TE was performed in cases of mixed (adenomatous) euthyroid goiter. Patients which affected only one part of the thyroid gland was performed HSE. In the first group of patients bleeding stopped by stitching and ligation of vessels by traditional suture material (polyester, nylon, silk). Hemostasis in patients second group performed by Electrical high-EK in the "welding". These actions allowed performing reliable hemostasis. In all cases, the operation finished drainage postoperative space. In the first group of patients with serous-hemorrhagic excretion saved to 4 ligations, and in the second group - 2-3. The duration of surgery in patients in the second group was $15,1 \pm 4,4$ min less than in the first group. Transitory paresis RLN in the first group were observed in 5 patients, in the second group - in 2. In 5 (5.63%) patients of the first group were more purulent wound complications relative in the postoperative period. Medium term of hospital stay was $5,1 \pm 2,4$ days.

Conclusions. 1. Hemostasis by traditional suture material causes significant in high costs that are not economically impractical and increases the duration of the operation, fraught implant infection and damage RLN. 2. Hemostasis by Electrical high-EK efficiently stop capillary bleeding, reduces the time of the operation, reduces the risk of damage RLN and the emergence of implant infection.

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**CHANGES IN INTERLEUKINS IN AQUEOUS HUMOR IN PATIENTS
 WITH UVEITIS**

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Introduction. Uveitis and its complications in 30% of cases lead to significant decrease of visual acuity and disability, also in patients of young age. That is why timely active treatment of this disease has exceptional social importance. In development of uveitis interleukins play a large part.

Our aim was to study the dynamics of interleukins changes in aqueous humor in patients with uveitis.

Materials and methods. The data of interleukins in aqueous humor changes in patients with uveitis has been analyzed in literature from 2011 to 2015 years.

Results of research. Some authors (Chen W, 2015, Zhao B, 2015) note increase of IL-1 in aqueous humor in HLA-B27 associated uveitis. There are different data about content of IL-6, IL-10 in aqueous humor of anterior chamber. Some authors established the increase of IL-10 in HLA-B27 associated uveitis (Chen W, 2015, El-Asrar A M, 2011), in Behcet's disease (El-Asrar A M, 2011), in Vogt-Koyanagi-Harada disease (El-Asrar A M, 2011), herpes simplex uveitis (Nahdi I, 2013) and in patients with the possible tuberculosis uveitis (Abu El-Asrar A M, 2012). The increase of IL-6 noted in HLA-B27 associated uveitis (Chen W, 2015), in herpes simplex and cytomegalovirus uveitis (Nahdi I, 2013). Wherein Zhao B, 2015 did not register the increase of IL-6 and IL-10 in HLA-B27 associated uveitis.

Kaufmann U, 2012 did not notice IL-10 in aqueous humor in idiopathic recurrent uveitis. The increase of IL-17 was marked in HLA-B27 associated uveitis (Chen W, 2015), Behcet's disease (El-Asrar A M, 2011), Vogt-Koyanagi-Harada disease (El-Asrar A M, 2011), in idiopathic recurrent uveitis (Kaufmann U, 2012) and in patients with the possible tuberculosis uveitis (Abu El-Asrar A M, 2012). However, Zhao B, 2015, Nahdi I, 2013 did not notice the increase of IL-17 in HLA-B27 and herpes simplex associated uveitis. There are different data about increasing of IL-15 in aqueous in Behcet's disease (El-Asrar A M, 2011), Vogt-Koyanagi-Harada disease (El-Asrar A M, 2011), in patients with the possible tuberculosis uveitis (Abu El-Asrar A M, 2012) and in HLA-B27 associated uveitis (El-Asrar A M, 2011). Nevertheless, this interleukin did not noticed by Chen W, 2015, Zhao B, 2015 in patients with HLA-B27 associated uveitis. The increase of IL-21, IL-25 and IL-31 is established in aqueous in patients with HLA-B27 associated uveitis by Chen W, 2015. There is contradictory difference about the content of IL-18 and IL-36 in HLA-B27 associated uveitis. According to the information of Zhao B, 2015 there is the increase of these IL, but in the research of Chen W, 2015, El-Asrar A M, 2011 there is no increase.

Conclusions. In this way, the question about changes in interleukins in patients with uveitis requires the future study.

Kalyuzhka V.

EFFICIENCY OF STEREOTACTIC BIOPSIES OF TUMORS USING PHANTOM MODELING TECHNOLOGY IN NEUROSURGERY

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Introduction. Analysis and evaluation results of stereotactic biopsies (STB) of deep localized brain neoplasms (DLBN) using computer navigation and three-dimensional modeling.

Materials and Methods. STB were performed at 102 DLBN cases during 2000-2016yy on the basis of Kharkiv regional hospital. STB were performed using frameless stereotactic device of Kandel's design under the control of intraoperative spiral CT. During procedure contrast agent was used to determine the target area with maximum accumulation of substances and correction biopsy-needles position. Patients for the procedure were selected with the severity of the state at least 40 points on the Karnofsky scale.

Results. All patients were made control SCT in 2-4 hours after STB. Intraoperative complications were observed only in 7 (6.8%) cases like intracerebral hemorrhage. Thus it was possible to aspirate blood and immediately install the drainage pipe for bleeding control. Histologically were verified: glioma - 61 (59.8%) cases; malignant lymphoma - 21 (20.5%); meningioma - 9 (8.8%); inflammation - 7 (6.9%); areas of necrosis of brain substance - 4 (3.9%).

Conclusion. This invasive diagnostic method has high level of informativity, and the main advantage of which is that all stages of the operation are carried out under CT. This allows the neurosurgeon to take urgent measures to address any complications. Construction of various projections, as well as the use of rapid prototyping technologies during preoperative planning allows to select optimally tool path. STB under CT navigation is less traumatic and safe method that allows to perform high-precision biopsy of brain tumors for histological verification of the diagnosis and determination the optimal treatment strategy.

Karamian A.

CASE OF THE LONG-TERM POSTTRAUMATIC SUB-INNER LIMITING MEMBRANE HAEMORRHAGE

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Introduction. Sub - inner limiting membrane (sub-ILM) haemorrhages have been associated with various different causes, the most common being Valsalva retinopathy and Terson's syndrome. But it can also occur spontaneously or as a result of trauma. Sub - ILM haemorrhages often leads to severe visual impairment because of their predilection for the macular region. It is evident that the main goal of treatment is to

removal the haemorrhage, but the treatment choices (laser drainage, vitrectomy or drug therapy) should be determined in each case individually.

Materials and methods. Case study. Besides standard ophthalmological examination B-scanning and Optical coherence tomography have been carried out as well. The patient were underwent vitrectomy followed by peeling of the inner limiting membrane with aspiration of the blood.

Results of research. A 27 - year - old man was referred to the ophthalmological department with long-term (4 months) unilateral vitreous haemorrhage. Ophthalmological examination revealed the following: wrong light perception and no pupillary reflex, elevated intraocular pressure and exophoria of the left eye with the normal ocular motility. Anterior segment of the left eye was normal but there was no reflex from the eyeground due to total haemophthalmus. B-scanning revealed total partially organized haemophthalmus and thickening of the macular and paramacular areas with a prominence to the vitreous body. A sub - ILM haemorrhage was diagnosed during vitrectomy.

One month later after the operation ophthalmological examination revealed the normal position of the both eyes, visual acuity of the left eye was 20/20, no visual field defects, normal intraocular pressure were detected. Optical coherence tomography did not reveal any pathological changes of the macular zone in the left eye.

Conclusions. This case presents that despite the long-term sub-inner limiting membrane haemorrhage and haemophthalmus, combined surgical treatment with vitrectomy followed by peeling of inner limiting membrane and aspiration of blood provide a favorable prognosis for the rapid restoration of high visual functions.

Karamian A.

COMPLICATIONS OF BRONCHIAL BLOCKAGE IN TREATMENT OF PIOPNEUMOTHORAX

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Introduction. Piopneumothorax has been found in 33.3% of patients with nonspecific infectious destructions of lungs. One of the pathogenic links of uprising and chronisation of piopneumothoraxis is a leakage of lung tissue, divergency of damaged lung tissue in relation to the pleural cavity, leading to the development of bronchial fistula, and further - to formation of bronchiopleural fistula. The successful closure of the bronchiopleural fistula makes the more reliable and less lengthy surgical treatment of these patients.

Materials and methods. Investigation involved 77 patients who got a thoracoscopic sanitation of pleural cavity and bronchial blockage. Valve bronchial blockage of the fistulous bronchus had been performed in 1-2 days after thoracoscopy. It is used reverse endobronchial valve made of medical rubber compound indifferent to the human body. The valve allows oxygen, sputum, bronchial content to move out from the lesion place during expiration and cough, preventing their movement back. Bronchus occlusion in patients performed after its visualization by painting method: during the bronchoscopy

in pleural cavity through the drainage was introduced 20 ml of 3% solution of hydrogen peroxide with a dye (brilliant green or methylene blue) in a ratio of 10: 1. Valve installed through oral cavity in tracheobronchial tree under the local anesthesia administration.

Results of research. In 23 (29.9%) patients after usage of bronchial occluder was established following complications. In 15 (19.5%) patients had been found a purulent bronchitis. This problem was due to the peculiarities of the valve action: the content of purulent pleural cavity freely penetrated through the fistula into the tracheobronchial tree, but did not go back, that is in large area of fistula, led to an accumulation of pus in the bronchi on the affected side. The next frequent complication found in 5 (6.5%) of patients was an overgrowth of granulation tissue in the area of the bronchial occluder which was detected immediately during removal of bronchial blockage but clinically didn't perform itself. During histological examination was a picture of chronic productive inflammation with the formation of granulation. In 3 (3.9%) of patients was found an occluder migration into the bronchial tree. Suspicion of this complication appeared in the recovery of air discharge through drainage, after chest X-ray in the direct projection had been detected an occluder. The reason of this phenomenon was the discrepancy of an occluder size to the bronchial diameter after the disappearance of the bronchitis symptoms and bronchial wall edema reduction.

Conclusions. Thus, the valve bronchial blockade is an effective and safe method in the treatment of patients with piopneumothorax. Possible complications of its use are easily diagnosed and diminished.

Khilchevskiy B., Vlasenko O., Ngo Thi Tuyet Nga

MODERN CONDITIONS FOR THE SELECTION OF NON-STRETCH METHODS OF PLASTICS OF THE ANTERIOR ABDOMINAL WALL AMONG PATIENTS WITH POSTOPERATIVE VENTRAL HERBS

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Introduction. Most often, surgeons who perform interventions for POGH (postoperative ventral hernia) underestimate the severity of such a complication as the abdominal compartment syndrome (AKS) and prefer to sew in the abdominal wall with interference, but not expand the volume of the operation. The set of measures aimed at the treatment includes a high position of the body, thus the respiratory insufficiency inevitably develops. Objective is to detect the effect of changes in the position of the body on ICP in patients operated on for POGH with a high risk of developing respiratory insufficiency.

Materials and methods. It was developed a biochemical model of the body of a patient operated on for POGH with a restored domain of the abdominal cavity. The studies were conducted among 85 patients with POGH who underwent surgery in the surgical department of 17 Clinical Multiprofile Hospitals in the period from 2011 to 2014, which performed combined methods of non-stretch plastic hernia grafts using allografts. The age of the patients ranged from 20 to 75 years. There were 50 women

(58.8%), 35 men (41.2%). The average age was 50 ± 6.5 years. Cardiovascular diseases, obesity and diabetes prevailed among the pathologies.

Results of research. During the study, it was found that the ICP varied by 1.5 mm hg. ± 0.87 ($p < 0.05$) among the patients operated on for POGH with an initial ICP up to 15 mm hg, When raising the head end of the bed by 15° . When the head end of the bed is changed at 30° , ICP will change to 3.7 mm hg. ± 1.7 ($p < 0.05$). We also learned that the sharper is the angle between the thorax and the pelvic axis, the higher is the ICP.

Conclusions. Patients with a high risk of developing respiratory complications need more careful preoperative preparation due to reduce visceral volume and compensate the respiratory diseases. It is necessary to give preference to the non-stretch plastic method among patients with a high risk of developing respiratory complications operated on for POGH. Considering the possible application of the elevated position of the body after performing hernioplasty, ICP should't exceed 15 mm hg. In case of the impossibility of plastics of the anterior abdominal wall without excessive tension, it is necessary to use various methods of decompression of the abdominal cavity, like a bridging method, decrease in the visceral volume or completely refuse to close the abdominal cavity.

Khromei E., Goncharov A.

QUALITY OF LIFE OF PATIENTS OPERATED ON THE COMPLICATED FORMS OF CHRONIC PANCREATITIS

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Introduction. Chronic pancreatitis (CP) is a common disease; its specific gravity among diseases of the gastrointestinal tract varies from 5.1 to 9%, characterized by a significant disruption in the quality of life of a large number of people of working age. Particular attention is required by patients undergoing surgical interventions for complications of CP because their recovery period is very long and time consuming, requires constant monitoring, both from the physician and the patient. Therefore, our goal was to study the quality of life of patients who underwent surgery for complicated forms of chronic pancreatitis using SF-36 and GSRS questionnaires.

Materials and methods. Life quality assessment was performed on 115 patients using SF-36 and GSRS questionnaires, which included 13 indicators, as well as age, gender, post-operative time and method of surgical treatment. When processing data for modeling and predicting the quality of life of patients, multilevel statistical methods were used: agglomerate and divisional cluster analysis, discriminate analysis, Data mining methods of the classification tree.

Results of research. In assessing the quality of life with the help of a mathematical model, we obtained the following results: after resection operations in 11.1% of patients, good results were obtained, in 77.7% – satisfactory and 11.2% – unsatisfactory results; after duodenum-preserving surgeries in various modifications, good results were obtained in 79.5%, satisfactory – in 20.6%, unsatisfactory – in 5.9%; after draining operations, good results were obtained in 22.2%, satisfactory – in 44.5%,

unsatisfactory – in 33.3%; after symptomatic operations, good results were obtained in 8,9%, satisfactory – in 62,2% and unsatisfactory – in 28,9% in terms of 1 to 7 years after the operation. Unsatisfactory results of surgical treatment in patients with draining and symptomatic operations were due to the fact that a part of fibrous tissue remained, and persistent pain syndrome was temporarily eliminated, the CP progressed. Therefore, these patients (17) were re-hospitalized in therapeutic and surgical hospitals. The reasons for re-hospitalization were persistent pain syndrome, dyspeptic syndrome, caused by the continued use of alcohol by patients and the refusal to accept enzyme drugs for substitution therapy.

Conclusions. Thus, the conducted analysis of the quality of life with the help of the developed mathematical model allowed substantiating the use of resection and resection-draining techniques of surgical interventions for complicated forms of CP.

Korniyets A., Mezhenskaya E.

THE USE OF RECTOSACROPEXY IN SURGICAL TREATMENT OF RECTAL PROLAPSE

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(Department of Surgery № 2)

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Introduction. Archoptosis is an important problem of coloproctology and is a serious disease for a patient. Prolapse of a straight intestine through anus makes its evacuation problematic, leads to anorectal incontinence, which in its turn immensely influences the social and labor adaptation (Voinov M.A., 2013).

Dr. Hoore and his colleagues (in 2004) proposed the method of straight intestine fixation – rectosacropexy that showed good functional results. The aim of the research was to study the rectosacropexy usage in patients with straight intestine prolapse.

Materials and methods. Today 32 patients operated on the rectal prolapse in 2010-2015 are in the research. The average age of the patients – $43,6 \pm 7,8$ years. Among them women (78,125%), men – 7(21,875%). The research includes patients with inner and outer prolapse. Anal incompetence has been tested through the adopted in clinic classification. Evaluation of motor skills of a small gut has been made with the x-Ray control of small gut follow-through. Anal incompetence has been tested with the methods of sphincterometry and profilometry. Evaluation of pelvic floor muscle function has been made through defecography with registration of gut position relative to pubococcygeus muscle (PC). Volition action shift, residual volume and time of evacuation have also been tested. Descending perineum has been diagnosed with registration of gut stasis $2,9 \pm 0,9$ cm. and more. Lower than PC muscle or with its shift to 6 cm. and more with straining. Decompensation of pelvic floor muscle function was shifting in anorectal area with straining less than $1,2 \pm 0,4$ cm (Zarodnyuk I.V. and Co., 2005).

Results of research. All the patients have been operated with the rectosacropexy method. The peculiar feature of this operation is mobilization of straight intestine without transaction of side straight intestine ligaments.

A synthetic implant is sewed by 3-4 sutures to front wall of straight intestine. The average time of post operational monitoring was $36,2 \pm 9,5$ months.

Motion and evacuation function, evaluated by the method of gastrointestinal transit showed improvement on $17,5 \pm 3,5$ sec. There have been no recidive found after the operation. Patients polling using the Cleveland scale (Aitola P.T., and Co., 1999) showed the increase in anal continence to $3,4 \pm 1,2$ points in 6-12 months after operation.

Conclusions. 1. Rectosacropexy is an effective method of treatment for rectal prolapse. 2. Rectosacropexy doesn't lead to slowing of straight intestine transit.

Kruglyak V., Babayeva A.

THE VEIN-OCCLUSIVE FORM OF ERECTILE DYSFUNCTION CORRECTION IN MEN WITH BILATERAL VARICOCELE

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Introduction. The ED nowadays occurs more and more in young or middle aged men. "Varicocele is associated with erectile dysfunction: a population-based case-control study" by Keller JJ, Chen YK, Lin HC proves the connection between varicocele and erectile dysfunction. Most authors explain the link between ED and low testosterone level varicocele "Low plasma testosterone in varicocele patients with impotence and male infertility" Younes AK. But in the course of clinical observations of patients with varicocele in conjunction with erectile dysfunction in the Kharkiv Regional Clinical Center of Urology and Nephrology named by V.I. Shapoval (KhRCCUN) is not revealed a significant reduction of testosterone in the blood. It makes a closer look at the problem of pathological venous shunt as a cause of erectile dysfunction in varicocele. In ED caused by abnormal venous discharge significant outflow of venous blood in pathological shunt (via the great saphenous vein, dorsal or enlarged cavernous veins) takes place, which makes it impossible to maintain an erection at the proper level (to achieve orgasm in sexual partners). Given that the varicocele is also a manifestation of pathology veins due to abnormal flow of blood can be assumed to innate predisposition to ectopic veins and insufficiency genitalia in patients with comorbid ED and varicocele.

Materials and methods. On the basis of the KhRCCUN conducted a comprehensive examination and treatment of 67 patients suffering from ED veno-occlusive form and bilateral varicocele. The average patient age is of $38.4 + 4.6$ years. This ED form is diagnosed by medical history and by ultrasound of the scrotum and penis in the Doppler mode. Patients underwent surgical treatment: bilateral operation of Marmar with ligation of the veins (pathological shunts) coming from the penis to the spermatic cord.

Results of research. The efficiency of surgical treatment: subjective (questionnaires on IIEF) - 85.3%, the objective - the absence of venous shunt on Doppler US - 94%.

Conclusions. 1) Both sided varicocele in young men with erectile problems is a marker and one of the reasons of veno-occlusive form of ED. 2) Modified (with ligation of

the dorsal and communicating veins) duplex operation Marmara is a highly effective method of treatment for these patients.

Kruglyak V., Guyvan I.

THE MOST EFFECTIVE OPERATING TREATMENT METHOD OF CAVERNOUS FIBROSIS ERECTILE DYSFUNCTION OF THE PENIS

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 Research advisor: MD, PhD, Professor Knigavko O.
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Introduction. Cavernous fibrosis (CF) of the penis is a sclerosis of the normal cavernous tissue with complete or partial loss of erectile function. The spread of this disease according to Vale JA. is 388 people per 100 000 population (2-3% in the male population). Despite the fact that the disease is not common, the annual increase in detectability of this disease is 25.7 people per 100 000 population, which raises the issue of treatment and recovery of erectile function in men with cavernous fibrosis of the penis more relevant. The complexity is that the only treatment of this disease is the falloprosthesis as effective method of treating cavernous fibrosis of the penis because conservative methods of treatment are only preparation for surgical intervention that improve blood supply to the penis. The goal is to determine the most efficient and effective falloprosthetic method to treat the erectile dysfunction in CF.

Materials and methods. On the basis of the KhRCCUN named by V.I. Shapoval in 2010-2016 64 patients suffering from CF were established with operative treatment (one-component and three-component prostheses). In the 1st group there were patients with one-stage installation of falloprostheses: 1a semi-rigid falloprosthesis for 18 patients, 1b of polyurethane prostheses for 37 patients. In the second group there were patients with three-component hydraulic falloprostheses for 9 patients.

Results of research. The biggest effectiveness in the CF treatment is by using three-component hydraulic falloprostheses (2 group) because patients characterize them as the most physiological and with the most quality sensations. However, if there are contraindications to the establishment of three-component hydraulic falloprostheses such as the highest cost of surgery and prosthesis, also areas of large fibrosis and giant plaques of the cavernous body and the lack of bougie ability - then we use semi-rigid (1a) and plastic polyurethane (1b) that proves their relevance (55 patients chose single-component prostheses despite their less physiological and not so quality sensations against the nine who chose the three-component hydraulic prostheses).

Conclusions. The biggest effectiveness in the CF treatment is by using three-component hydraulic falloprostheses (2 group) because patients characterize them as the most physiological and with the most quality sensations. However, if there are contraindications to the establishment of three-component hydraulic falloprostheses such as the highest cost of surgery and prosthesis, also areas of large fibrosis and giant plaques of the cavernous body and the lack of bougie ability - then we use semi-rigid (1a) and plastic polyurethane (1b) that proves their relevance (55 patients chose single-component prostheses despite their less physiological and not so

quality sensations against the nine who chose the three-component hydraulic prostheses).

Krukovets N.

UTERINE ARTERY EMBOLIZATION (UAE)

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(Department of Operating Surgery and Topographic Anatomy)

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Introduction. Today one of the most common women diseases is uterine fibroids, which occurs, according to the WHO, in up to 25-40% cases in women of reproductive age, and up to 50% - of pre-menopause age. Over the past 15 years a number of methods has been proposed , one of them is a method of uterine artery embolization (EMA). This method can be applied to the fibromatous nodes of any size and number. To examine the effectiveness and benefits of EMA among the rest of the fibroids treatment methods on the basis of reference literature on the application of endovascular surgery in the treatment of patients with uterine fibroids.

Materials and methods. The study of published data from 2000 to 2017 including international and domestic articles in medical journals, results of clinical studies on the use of the method of uterine artery embolization.

Results of research. Within 6-12 months after embolization a significant decrease in uterine size up to 43-45% and fibromatous nodes up to 50-58% have been observed according to the results of ultrasound diagnosis. Ukraine has experience of more than 600 operations on the uterine arteries. Technically successful embolization applied to the size of the uterus proves the effectiveness of the UAE is 92-97% cases together with the number of less than 6% cases of complications, and mortality nearly absent.

Conclusions. Thus the method of uterine artery embolization can be considered a good alternative to the classical method of surgery. A number of advantages over the other methods of fibroids treatment should be mentioned, namely: 1) it preserves the uterus as a part of body; 2) it enables successive pregnancy; 3) it does not require hormone therapy; 4) it ensures almost no re-occurrence of fibroids unlike myomectomy; 5) it can be applied to any types of fibroids (except for subserous node occurring on fine base - "leg"); 6) it enables the treatment of patients who are contraindicated surgery; 6) it does not require general anesthesia; 7) it shows low surgery trauma (puncture in the inguinal fold) with almost no bleeding; 8) it requires a hospital stay of 3-5 days. Contraindications: method is not used during pregnancy, when submucous fibroids or inflammation of the pelvic organs have been detected, as well as allergy to medications used in UAE.

Kupchyk K.

PROSPECTS FOR CONSERVATIVE TREATMENT OF ONCOLOGICAL DISEASES

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Introduction. According to WHO, Ukraine ranks second in Europe in oncopathology. Over the past 10 years, the number of cancer patients has increased by 25%, which led to a significant decrease in the population. This indicates the low effectiveness of the old methods of cancer treatment.

The aim of this study is to introduce new possibilities of conservative treatment of cancer at different stages.

Materials and methods. Studying of medical literature, journals and articles, the clinical results of the research of Dr. Victor Levy, about the use of new biological and immunological drugs to fight cancer cells.

Results of research. Identification of genetic mechanisms of cancer has led to the discovery of new methods of treatment, one of which is the biological method. This method is based on the use of drugs that can affect the protein-oncomarker, which is specific for each type of cancer, which formed the basis for the creation of a whole group of drugs.

For the treatment of large intestine tumors in the stage of metastasis, if there is a normal protein KRAS in the tumor cells, the drug "Erbix" is prescribed. The drug is effective for more than 70% of patients, while in 35% of patients during treatment the tumor volume decreases to the operative size.

Patients with melanoma of the skin in 60-70% have a mutation of the oncogene BRAF, for the blocking of this gene the preparation "Vemurafenib" was developed.

Adenocarcinomatous lung cancer is one of the most common. In these patients, a mutation of EGFR and ALK proteins was detected, while the preparation "Gefitinib" is prescribed, which blocks the receptors of oncocells, which contributes to inhibition of tumor growth and its metastasis.

In breast oncopathologies, there is a change in the genes, resulting in an excessive production of HER2 protein, for its blocking developed the drug "Herceptin".

The second method of treatment is immunological. The use of immunologically active agents stimulates the body to produce antibodies against proteins of cancerous tumors. For example, the drug "Keytruda" has an effect on the protein PD-1, which allows the immune system to "see" the cancer cells and counteract them. Keytruda promoted remission and stabilization of neoplasms in 87% of patients, and in 30% after its application metastases completely disappeared.

Conclusions. Immunological and biological treatment of malignant tumors is the most promising at the present time. The point action of the drugs allows to destroy the tumor and the distant formed metastases without damaging the healthy cells, which reduces the side effects, in comparison with chemotherapy and irradiation.

Kuznetsova D., Goncharov A.

FEATURES OF DIFFERENTIAL DIAGNOSIS IN CHRONIC PANCREATITIS AND PANCREATIC HEAD CANCER

Kharkiv National Medical University

(Department of Surgery № 2)

Research advisor: Assoc. Goncharova N.N.

Kharkiv, Ukraine

Introduction. Differential diagnosis of pancreatic head cancer and chronic pancreatitis is one of the most difficult and important problems in surgery.

Materials and methods. The results of surgical treatment of 118 patients for the period from 2010 to 2017 are analyzed, 51 of them (43.2%) with chronic pancreatitis and 67 (56.8%) with pancreatic cancer. All patients were examined according to generally accepted diagnostic algorithms.

Results of research. The main criterion for pancreatic cancer was foci of formation, a decrease in echogenicity with uneven borders, and heterogeneity of the structure. Morphological signs of pancreatic cancer (blockade, stenosis, narrowing, widening of the lateral branches of the main pancreatic duct) were present in pancreatograms of patients with pancreatic cancer (differed from chronic pancreatitis by the presence of extensive strictures and a longer stenosis of the distal part of choledoch). In patients with pancreatic cancer, an increase in the CA-19-9 cancer marker was observed with a tumor size of up to 6 cm, then a decrease was noted, but at that time other CA-125 cancer markers, a cancer embryonic antigen, significantly increased, indicating cancer invasion into neighboring organs. The increase in the level of CA - 19-9 was detected in 40% of patients with chronic pancreatitis, but against the background of the treatment the value of the marker decreased.

Conclusions. For the differential diagnosis of chronic pancreatitis and pancreatic cancer, a combination of instrumental techniques and cancer marker research is required, which allows for high specificity up to 92% and an accuracy of up to 95% in the formulation of the correct diagnosis.

Lapshyn D.

STAGING OF OSTEOSYNTHESIS DEPENDING ON THE SEVERITY OF POLYTRAUMA

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(Emergency and urgent health care, orthopedics and traumatology)

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Introduction. Our previous studies using mathematical and statistical analysis proved the feasibility of using the ISS scale to determine the type of osteosynthesis in patients with multiple and associated fractures of long bones. The severity of the victims condition is reasonable to assess the VPH-SP scale because it's very informative and easy to use. But the question remains unresolved, what is the correct way to stabilize bone fragments in patients with polytrauma using one, two (or more) stages of treatment.

Materials and methods. The results of treatment were evaluated in 104 patients with multiple and combined fractures of the long bones, the severity of injuries which is 25-40 points on the ISS scale and severity of the condition scale VPH-SP 21-32 points. The division of the main group (43 patients) and control group (61 patients) was carried out on the basis of one stage (main) or two-stage (comparison group) conducted operative treatment of the musculoskeletal system injuries. The main group and the comparison group were identical in localization and type of fracture, age and sex.

The patients from the main group had a one-stage surgical treatment of long bones fractures. It was made the closed locking intramedullary nailing for 36 patients (83.7%) and it was also the external fixation with reposition of bone fragments for 7 patients (16.3%).

The patients from the control group were treated by two-stage surgical tactic of long bone fractures: 23 patients (37.7%) on the first stage was used skeletal traction followed by intramedullary blocking nailing; 8 patients (29.5%) - performed the initial fixation ex-fix devices without careful repositioning and on the next step after stabilization of patients condition the blocking intramedullary fixation was performed; 16 patients (26.2%) - after primary stabilization of bone fragments by external fixation devices without careful repositioning performed secondary osteosynthesis with carefully repositioning of bone fragments, and 4 patients (6.6%) in the first stage were treated by the skeletal traction with followed external fixation repositioning of bone fragments.

Results of research. It was established that the victims from the main group stayed in the hospital on time 52.6% less than the control group patients.

41.9% patients from the main clinical group had good results of treatment. In the control group good results have been found only in 26.2% of patients.

Satisfactory results were detected in 51.2% of patients from the main group and in 57.4% of patients from control group, unsatisfactory results totaled 6.9% and 16.4% respectively.

Conclusions. In the treatment of patients with multiple and associated fractures of the long bones, who has 25-40 points by the ISS scale, and 21-32 points by the VPH-SP, the optimal surgical tactics should be considered as a one-stage, performing of closed intramedullary blocking nailing, all types of external osteosynthesis with bone fragments reposition.

Lola N., Sushetska D., Yakusheva A.

DYNAMICS OF TISSUE OXYGENATION IN PATIENTS WITH CRITICAL LIMB ISHEMIA WITH DISTAL TYPE OF LESION

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Introduction. Critical limb ischemia (CLI) is a severe form of peripheral artery disease associated with high morbidity and mortality. The problem of obliterating vascular disease ceases to be relevant, annually diagnosed with a frequency of 500-1000 cases per 1 million population in Europe and North America. The prevalence of chronic

lower limb ischemia reaches 3% of the world population, in people aged over 50 years in 9-10% of cases and in persons over 60 years - 35-50%. The aim of our research is to show the result of treatment of patients with CLI treated by different way and combined with plasmotherapy.

Materials and methods. Determination of transcutaneous oxygen tension was made on the dorsum of the foot of sick limbs before treatment, before discharge from the hospital, after 6 and 12 months using the single-channel RADIOMETER TCM 4. 11 patients with CLI with distal type of lesion were enrolled in the research. Etiology of CLI was atherosclerosis or postthrombotic occlusion. Patients were divided into 4 groups. According to the main treatment method – patients treated by open surgical reconstruction, by endovascular surgery, non-surgical treatment and by sympathectomy.

Results of research. The studied parameters show raising in response to treatment, and regardless of the treatment level corresponded compensated circulation rate (above 40 mm Hg) - 41 mm (Patients treated conservatively) to 62.5 mm Hg (Patients with endovascular surgery). All-group rate after treatment was 50.36 mm, which is 97.8% above baseline ($p=0,000$). Further results show decline in the index for 6 months, and an average of 45.55 mm Hg, which is 78.9% above baseline ($p=0,000$) corresponding compensated circulation, but patients who underwent sympathectomy and open surgical reconstruction had an average of under 38 mm Hg and 38.5 mm Hg, corresponding subcompensated circulation. After 12 months. All-group transcutaneous oxygen tension rate was 45mm Hg, which is 76.8% above baseline ($p=0,000$), but in patients treated conservatively and who underwent sympathectomy had an average oxygen tension in the foot takynah 37%, which is also an indicator subcompensation circulation.

Conclusions. However, in patients with endovascular surgery level of transcutaneous oxygen tension within the period of observation was 52.4 % higher than in patients with conservative therapy after treatment ($p=0,007$), 40.7% higher in the period of 6 months ($p=0,019$) and 54% after 12 months ($p=0,023$).

Lukashenko E., Yakymenko D.

SURGICAL TREATMENT OF H.VALGUS USING CORRECTIVE PROXIMAL WEDGE OSTEOTOMY OF THE 1st METATARSAL BONE

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Introduction. Actuality: Valgus deformity of the metatarsophalangeal joint of the great toe is a widespread pathology. According to different authors it occurs in 48.9% of the adult population and up to 75% of the elderly population of the world (75-82% of them are females and up to 4% are males). More than 400 methods of surgical treatment of h. valgus have been described, however, a large number of negative outcomes (15-20%) lead to the search for new and improvement of known methods of treatment in order to achieve the most stable and reliable result.

Objective: to analyse the results of surgical treatment of patients with hallux valgus after performing corrective proximal wedge osteotomy of the 1st metatarsal bone.

Materials and methods. Materials and methods: The study included 30 patients (42 stops) with transverse-planar deformation of the anterior part of the feet and valgus deformation of the 1st finger, mainly of medium and severe severity. Among them there were 29 women and one man. The average age of the patients was 49 years and 2 months. The average follow-up period was 12 months. All patients underwent standard clinical and roentgenologic examinations (angle M1M2, angle M1P1, PASA - Proximal Articular Set Angle). The mean values of the basic X-ray measurements before the operation were: M1M2 = 17° (14° to 23°), M1P1 = 42.7° (32° to 58°), PASA = 13.6° (5° to 18°).

All patients underwent corrective proximal wedge osteotomy of the 1st metatarsal bone with fixation with a plate in combination with the operation of the Shede and a lateral release of the capsule of the 1st metatarsophalangeal joint and excision of the tendon of the transverse abdomen m.adductor hallucis. Clinical evaluation of the results of treatment was carried out using the AOFAS scale.

Results of research. Results: In 5 (16.7%) patients, the clinical outcome was considered as excellent, in 22 patients (73.3%) as good, 3 (10%) patients were satisfactory, and there were no unsatisfactory results. Improvement of the average score by AOFAS scale is 36 points (from 44 to 80 points). The results of the X-ray analysis show a reduction in all the studied parameters, namely the angle M1M2 from 17° to 8.8° (from 6° to 11°), the angle M1P1 from 42.7° to 14.3° (from 5° to 23°), the PASA angle from 13.6° to 12.1° (from 4° to 16°).

Conclusions. 1. Surgical treatment of hallux valgus with the use of corrective proximal wedge osteotomy of the 1st metatarsal bone showed high efficiency, and the obtained results are comparable with those presented in the world. 2. The proximal wedge osteotomy of the 1st metatarsal bone allows to eliminate the main components of deformity in the transverse-planar deformation of the foot with hallux valgus, namely, varus, elevation and rotational deformities of the 1st metatarsal bone and valgus deformation of the first toe. 3. After performing an osteotomy fixation of bone fragments of the 1st metatarsal bone with a plate makes it possible to mobilize the patient in the Barouk shoes in an early period and avoid bulky plaster bandages.

Maliiovannaya A.

IMPACT OF LOCAL NEGATIVE PRESSURE ON THE WOUND AS A MODERN METHOD OF EFFECTIVE SURGICAL TREATMENT OF ACUTE PARAPROCTITIS

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(Department of Operative Surgery and Topographical Anatomy)

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Introduction. The problem of acute paraproctitis treatment is justified by the fact that this pathology is the most frequent one in the practice of urgent surgical proctology. Particular importance is attached to the problem by the fact that acute paraproctitis affects mainly people of working age. All this reflects the necessity to develop

fundamentally new and more sophisticated surgical tactics. Negative pressure treatment is an innovative technique in the treatment of wounds, leading to an acceleration of their healing.

Materials and methods. The first NPWT session is performed from 1 to 3 days, depending on the amount of wound exudation, intoxication state and body temperature. After the first NPWT session, if necrosis is present in the wound and purulent inflammation persists, surgical treatment with necrectomy and revision with wound sanitation should be performed. The duration of subsequent sessions can reach 3 to 4 days, with a pressure of -100 to -125 mm Hg, depending on the area and contamination of the wound.

The following mechanisms of impact of local negative pressure on the wound are noted:

1. Macrodeformation. The effect of negative pressure on the bottom and edge of the wound under conditions contributes to the coalescing of the edges of the wound, reducing the size of the wound regardless of the intensity of cell proliferation.
2. Microdeformation. The walls of the open pores of the sponge attach to the wound bed, while the inner part of the pores does not come into contact with the wound, which ultimately stimulates the migration and proliferation of cells.
3. Active removal of excess wound discharge, including biologically active substances, which slow down wound healing. Acceleration of bacterial decontamination.
4. Optimization of wound environment. Maintaining a moist wound environment which stimulates angiogenesis, enhances fibrinolysis and contributes to the normal functioning of growth factors. Reduction of local tissue edema, strengthening of local lymph circulation and transcapillary transportation. As a result, there is an improvement in tissue oxygenation.

Results of research. The use of this method allows to shorten the duration of hospitalization from 17-25 bed-days to 11-13, as well as the reduction in the total number of bandaging and manipulations, which reduces the patient's discomfort and workload for medical personnel. The intensity of the pain syndrome, which is stopped independently or with the help of non-narcotic analgesics, also decreases. Serious adverse events and deaths during NPWT are not observed, which reduces the degree of disability of the patient.

Conclusions. NPWT is a safe and effective method in the complex treatment of acute paraproctitis and extensive postoperative crotch injuries.

Mikhieieva N.

FORECASTING OF THE LETHALNESS AT ACUTE DESTRUCTIVE PANCREATITIS

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Introduction. Given pathology presents great interest for science. Dependence is observed between the level of the lethality and the term of hospitalization, the heaviness of the condition and the form of the disease.

Work purpose became forecast and the evaluation of the risk of lethal outcome at sick by acute destructive pancreatitis.

Materials and methods. Under supervision it was of 225 sick by acute destructive pancreatitis which were classified on four groups of death rate: 0 groups (died up to 7 days) - 29 sick, 1 groups (died after 7 days) - 30 sick, 2 groups (is alive after 7 days with complications) - 18 sick, 3 groups (is alive without complications) - 148 sick.

The patients underwent general clinical tests including revealing of complaints, the anamnesis of illness and laboratory analyses (clinical and biochemical analyses) were conducted.

According to the classification adopted in Atlanta in 1992, edematous form was diagnosed in 8 patients, destructive uninfected pancreonecrosis - in 24 patients, destructive infected pancreonecrosis - in 36 patients.

Results of research. Analysis of used data shows that lethality at ADP on the average is high (38, 5 %). Two groups of sick on lethality are allocated: low (up to 10 %), which is characteristic of отечной both fatty the forms of the ADP, and high (about 50%), connected with development of destructive complications and syndrome of system inflammatory reaction at sick with геморрагической and purulent forms of the ADP.

In heaviness of condition of sick the same tendency with presence of low and high degree of the lethality is traced.

Analysis of the lethality in postoperative period showed that lethality grows at increase of terms of hospitalization after development of primary symptomatology. Deferring of medical aid more than 4 days involves deterioration of results of treatment with lethality 50-70 %.

Conclusions. Detailed lethality research established communication between the level of the lethality and the term of hospitalization, heaviness of condition and the form of disease. Forecast important criteria lethality are revealed.

Milko A.

REMOTE RESULTS OF SURGICAL TREATMENT OF PATIENTS WITH ACUTE DESTRUCTIVE PANCREATITIS

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Introduction. The treatment of patients, who were operated on for acute destructive pancreatitis, is a difficult problem for physicians of different specialties. About 50-60% of patients are disabled in the postoperative period. Improvements in the results of treatment can be achieved by systematizing, analyzing and studying the long-term results of surgical treatment.

Materials and methods. Remote results in the period from 1 to 12 years after the operation on for acute destructive pancreatitis were studied in 68 patients. There were 32 men and 36 women. According to the classification adopted in Atlanta in 1992, edematous form was diagnosed in 8 patients, destructive uninfected pancreonecrosis - in 24 patients, destructive infected pancreonecrosis - in 36 patients.

Results of research. We identified three groups of patients. The first group (28 patients) includes patients with edematic and uninfected forms of acute destructive pancreatitis. In the long-term postoperative period patients felt relatively satisfactory. But on ultrasound examination we found signs of chronic pancreatitis: a diffuse contour of the pancreas, a heterogeneity of gland's structure, a deformation of the head and body of the gland. Ducts of the pancreas were not changed. The second group (19 patients). They were operated on for destructive infected pancreatitis. These patients felt unsatisfactory after the operation. They had epigastric pain, nausea, severe general weakness, upset of the stool. On ultrasound examination we found dilated Virsung's duct with concrements in 3 patients and dilated Virsung's duct with false cysts of the pancreas in 4 patients. Signs of duodenostasis were found in 6 patients. Also in patients of this group was noted the increase in total bilirubin from 20.5 to 30 mmol / l and the increase in AsAt and AlAt to 1.0-1.5 mmol / l in biochemical parameters. The third group (11 patients). They were operated on for destructive infected pancreatitis with total or subtotal lesion of the parenchyma of the pancreas. These patients had diabetes after the operation: 6 of them received insulin therapy, 5 - hypoglycemic drugs. The clinic of disease had developed almost immediately after the operation.

Conclusions. We obtained the following results of our research: 24 (35,3%) patients had serious complications after operation of destructive forms of acute pancreatitis. They needed subsequent surgical treatment or permanent medical correction. Diabetes had developed in 11 (16.2%) patients and 13 (19.1%) patients needed surgical treatment of false pancreatic cysts, concrements of Virsung's duct or duodenostasis.

Nekrasova Y.

A STEP-UP APPROACH FOR PANCREATIC NECROSIS

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Introduction. Every year more and more people in Ukraine suffer from acute pancreatitis. Secondary infection of necrotic tissue is always an indication for surgical treatment.

The goal: Compare the effectiveness of the step-up approach using minimally invasive techniques (percutaneous drainage under ultrasound control, endoscopic drainage and minimally invasive retroperitoneal necrectomy) with open necrectomy.

Materials and methods. Investigated 23 patients aged 37 to 62 years. Among them - 18 women (78%) and 5 men (22%). For the treatment were selected two ways: a step-up approach and open necrectomy. The step-up approach was used in 11 patients (group 1) and consisted of percutaneous drainage followed, if necessary, by minimally invasive retroperitoneal necrectomy. 12 patients (group 2) were performed according to standard open necrectomy schemes. The efficacy was assessed by a composite of major complications (new-onset multiple-organ failure or multiple systemic complications, perforation of visceral organ or enterocutaneous fistula, bleeding or death). Dutch Pancreatitis Study Group offered the method of step-up approach. Minimally invasive step-up approach included next phases. The first step was

percutaneous or endoscopic transgastric drainage. The preferred route was through the left retroperitoneum, thereby facilitating minimally invasive retroperitoneal necrosectomy at a later stage, if necessary. If there was no clinical improvement after 72 hours and if the position of the drain (or drains) was inadequate or other fluid collections could be drained, a second drainage procedure was performed. If this was not possible, or if there was no clinical improvement after an additional 72 hours, the second stage - the retroperitoneal debridement with postoperative lavage in the way of lumbotomy was phased.

Results of research. in the first group 4 patients (36.4%) performed percutaneous drainage only, 3 (27.3%) were re-draining and that was enough, the other 3 (27.3%) improvement occurred after the second stage of step-up treatment, and 1 patient (9%) was conducted open necrectomy because of no effect after step-up approach treatment. In the first group the development of organ failure and systemic complications was 18.8% and in the second group - 33.3%, almost twice as much. Also patients assigned to the step-up approach had a lower rate of incisional hernias and new-onset diabetes. Also, the mean total of direct medical costs and indirect costs per patient during admission and at the 6-month follow-up became lower, than when other ways of treatment were used. Thus, the step-up approach reduced costs by 12%.

Conclusions. Such a way we can see that step-up approach should be an option in the treatment of pancreatic necrosis. Precisely this minimally invasive method should find application in widespread in Ukraine, since it is less traumatic to the patient, in 36,4% of cases, decisive in treating the disease, as well as more cost-effective than other presently used therapies.

Nyrka I.

**COMPARATIVE CHARACTERISTIC OF EFFECTIVENESS OF
TREATMENT OF ONYCHOCRIPTOSIS BY THE METHOD OF
CRYODESTRUCTION AND THE TRADITIONAL METHOD OF
SURGICAL TREATMENT**

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Introduction. Onychocriptosis - quite a frequent disease that occurs among different age groups of the population. Patients with ingrown nails are 0.5-10% of all outpatients (Larin, V.F. 2010). The purpose of this study is to conduct a comparative evaluation of the cryodestruction technique and the traditional method of surgical treatment.

Materials and methods. Analyzing the protocols of treatment of 34 patients aged 18 to 45 years treated out-patient from 2013 to 2014 for ingrown nails with acute inflammation in the form of a near-neil felon, without concomitant somatic diseases. All the patients included in the study were divided into 2 groups. In the first group (n = 17) the cryoexposure technique was used (main group). In the second group, in 17 patients with similar complications, the traditional method of surgical treatment (comparison group) is undertaken. All patients of the main group and the comparison group were examined at 2 and 12 months.

Results of research. All patients in the main group achieved a good clinical effect and complete recovery with no relapse, a reduction in the period of incapacity for this pathology 10-12 days, and with traditional methods 14-28 days.

Conclusions. The most promising treatment for ingrown nails is cryodestruction. Since it has a high degree of effectiveness, it is not accompanied by relapses and promotes rapid recovery of work capacity.

Onopriiko Y.

HERNIOALLOPLASTY IN THE TREATMENT OF VENTRAL HERNIAS

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Introduction. Actuality: a high frequency of relapses makes 14-50%. Postoperative mortality is 3-7%. Unsatisfactory results are associated with an inadequate choice of the method hernioplasty.

Objective: to analyze the advantages and disadvantages of hernioalloplasty postoperative ventral hernias.

Materials and methods. Two materials polypropylene PP and polytetrafluoroethylene PTFE. From PP is made mesh which is grown connective tissue, PTFE is perforated plates that are either not germinate connective tissue or grow it very slowly. PP monofilament mesh has biocompatibility, strength, resistance to infection. Suture material has the same characteristics. Prosthetics anterior abdominal wall is indicated in patients with an increased risk of development of recurrent hernias: morphological and functional failure of the tissues around the hernial orifice, elderly age of the patient, the presence of recurrent or multiple recurrent hernia, obesity, increased intraabdominal pressure, a plurality of hernias, a long hernia's carriage. The most optimal is placing of the prosthesis in the position of "sub lay" (retromuscular and preperitoneal). However the small size of the defect of the anterior abdominal wall is technically difficult, traumatic to implant prosthesis under the muscle aponeurotic layer of small hernial ring. "On lay" is not appropriate, given the frequency of postoperative complications associated with microcirculatory disturbances in the tissues and the formation of a relatively large residual cavity. The technique "in lay" is used in the case where the reduced region of hernial ring is impossible or dangerous because of the risk of cardiopulmonary complications associated with a reduction of the abdominal cavity volume, especially in patients with concomitant cardiopulmonary disease. Disadvantages of implants: severe inflammatory reaction with a predominance of exudative component; the formation of rough scar tissue; rigidity, stiffness in the abdominal wall.

Results of research. On the basis of The Center of emergency medical aid & disaster medicine the results of treatment of 64 patients with postoperative ventral hernias were studied: autoplasty - 7 pat., alloplastic method by "sub lay" - 48 pat., alloplastic method "in lay" - 9 pat. Postoperative complications has occurred in 12 pat.: has appeared seroma in the field of implant in 8 pat., ligature fistulas in 2 pat., transplant rejection - 1 pat. In the

application of gernoautoplasty relapsed hernias-1pat. It is noted that the highest percentage of complications account for a large postoperative hernias.

Conclusions. The use of gernoaloplasty is not without drawbacks. Choosing a surgeon of the optimal type of plastic can allow to reduce postoperative complications, reduce the length of stay of patients in hospital, as well as reduce the economic costs.

Pashkov O.

PECULIARITIES OF OPTIC NERVE LESION AMONG PATIENTS WITH ACUTE ORBITAL INFLAMMATION

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Introduction. Acute orbital inflammation can cause blindness and intracranial complications. Nowadays pathogenesis of optic nerve lesion among patients with orbital cellulitis has not been studied enough.

Materials and methods . 84 patients (aged 14-79 years) with orbital cellulitis were supervised. Patients were divided into 4 groups depending on visual acuity during acute period of orbital inflammation. In the 1st group there were 5 patients with visual acuity 0,2-0,8. In the 2nd group there were 5 patients with visual acuity 0,01-0,04. In the 3d group there were 4 patients with blindness. In the control group there were 70 patients with visual acuity 0,9-1,0. Besides standard ophthalmological examination HCT and MRI with contrast (gadodiamid 0,5 mmol/l) were carried out.

Results of research. During acute period of orbital cellulitis among patients of the 1st group prominence in the vitreous and blurring of disc margins, widening of the retinal veins were recorded. The diameter of orbital part of optic nerve and of superior orbital vein did not differ at all comparing with the control group. Venous blood flow was symmetrical to the healthy side. After regression of the orbital inflammation complete recovery of visual function. During acute period of orbital cellulitis among patients of the 2nd group prominence in the vitreous, hyperemia and blurring of disc margins, considerable widening of the retinal veins were detected. The widening of orbital part of optic nerve 1,2 times and of superior orbital vein 1,9 times were marked. Venous blood flow was asymmetrical to the healthy side. After regression of the orbital inflammation there were partial recovery of visual acuity, concentric narrowing of the visual field, impaired color vision. During acute period of orbital cellulitis among patients of the 3rd group prominence in the vitreous, hyperemia and blurring of disc margins, considerable widening of the retinal veins were detected. The widening of orbital part of optic nerve 1,5 times and of superior orbital vein 2,8 times were marked. Venous blood flow was asymmetrical to the healthy side. There were no restoration of visual function among patients of the 3rd group towards the reduction of the inflammatory changes in the orbital cellular tissue.

Conclusion. Optic nerve lesion among patients with orbital cellulitis develops in the 16,7 % of cases. Intrabulbar and orbital parts of optic nerve are affected among these patients. Degree of visual function disturbance depending on level increase intraorbital pressure and rate widening of orbital part of optic nerve and superior orbital vein.

Ponomarova K., Minuchin D., Perepelitsia F.

FEATURES OF ENDOVASCULAR HEMOSTASIS IN PATIENTS WITH PULMONARY HEMORRHAGE OF VARIOUS ETIOLOGIES

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(Department of Surgery №1)

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Introduction. Pulmonary hemorrhage is one of the most frequent complications of inflammatory respiratory diseases. This complication occurs in 7-14% of patients with various lung diseases that come to the thoracic department. A large number of tools to combat this disease often complicates the choice of optimal treatment strategy and results in unwarranted expansion of indications for surgical volume. Endovascular embolization of bronchial arteries can achieve final hemostasis in 90-95% of cases.

Materials and methods. Improved treatment of pulmonary hemorrhage of various etiologies, using the methods of endovascular surgery. The clinic SI "Institute of General and Urgent Surgery V.T.Zaitseva NAMS Ukraine" was held endovascular treatment 119 intervention patients, namely with acute and chronic inflammatory diseases of the lungs-39 patients with malignant disease complicated by pulmonary hemorrhage - 80 patients.

Results of research. Catheterization bronchial arteries was performed by standard methods. As emboline used synthetic material of polyurethane or emboli hemostatics ponge from 1 to 3 mm in diameter. The study found that 119 patients after endovascular occlusion of bronchial arteries in 107 (89%) patients have achieved final hemostasis. Rebleeding in remote period after REO appeared in 12 (10%) patients in inoperable patients with malignant lung diseases. In 10 (8.4%) patients made repeated endovascular embolization occlusion with a positive result in 2 (1.7%) patients with conservative therapy with out result.

Conclusions. Arteriography bronchial arteries highly effective in solving the problems of bleeding in lung cancer and non-specific lung diseases and determining the location and source of the bleeding. Endovascular intervention provides a solid (89%) stop pulmonary hemorrhage and can reduce mortality from 10.2% to 1.7%.

Ponomarova K., Minukhin D., Ponomarova E., Ovchinka R.

STAGES OF TREATMENT OF MYASTHENIA PATIENTS ON THE BACKGROUND OF TUMORAL INVOLVEMENT OF THE THYMUS

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Introduction. Myasthenia gravis is a severe autoimmune synaptic disease, manifested by variable muscular weakness and symptoms of pathological muscle fatigue. Over the past 5 years, the incidence of myasthenia gravis in the Kharkiv region has been growing steadily and is currently 3.1 per 100,000 population. It is customary to isolate local forms of myasthenia gravis (ocular, bulbar, skeletal) and generalized, in 15-30% of cases combined with tumors of the thymus gland.

Materials and methods. Under our supervision, there were 168 patients with myasthenia gravis, among which 56 tumors of the thymus were detected (33.3%). These patients underwent conservative treatment in combination with operative intervention on the thymus gland.

Results of research. The effectiveness of the treatment in this group of patients was significantly increased in the four-stage program. It included the following elements: preoperative preparation, operation (thymectomy), postoperative correction of the patient's condition and the stage of maintenance therapy. Stage preoperative preparation - the maximum reduction of myasthenic manifestations, which was solved by selecting the optimal doses of anticholinesterase drugs (AChEP). In this case, often had to alternate or combine drugs of short duration (proserin) and long (kalimin). In severe cases, glucocorticoids were prescribed together with AChEP. All patients received potassium chloride at the stage of preoperative preparation. In the severe condition of the patient, the plasmapheresis method was used. The main task of the second stage of treatment of patients with myasthenia with thymoma was surgical intervention. All patients underwent a thymectomy with removal of the mediastinum of the anterior mediastinum. Medical support for the operation of patients with myasthenia gravis has its own peculiarities: it is absolutely counter-indicative to prescribe drugs that increase muscle weakness. The stage of postoperative correction of the patient's condition begins from the first hours after the operation in the intensive care unit. When revealing signs of bulbar disorders, prolonged artificial ventilation was used, while AChEP was canceled. Subsequently, the dose of AChEP was adjusted depending on the patient's condition. In severe cases, repeated sessions of plasmapheresis were administered. In 9 cases, immunosuppressive therapy with azathioprine was prescribed.

The patient was transferred for further rehabilitation to the neurological department with sufficient activation of the patient and healing of the wound. Dynamic observation, selection of a dose of AChEP was carried out.

Conclusions. The effectiveness of the proposed treatment stages in patients with myasthenia on the background of tumor damage to the thymus is determined by the dynamics of motor disorders and quality of life indicators. In 92% of operated patients, it was possible to achieve stabilization of the condition and regression of myasthenic symptoms, to reduce the number of complications in the postoperative period by 60%, to reduce the lethality to zero, and to shorten the average period of stay of a patient in a surgical hospital to 10-12 days.

Sharlai K., Volkova J.

ANALGOSEDATION IN PATIENTS WITH SEVERE TRAUMATIC BRAIN INJURY

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Introduction. Adequate analgesia and sedation should ensure that the patient may receive intensive therapy without stress and pain. For patients with severe traumatic

brain injury analgesia and sedation are very important. Our aim was compare the effect of different methods of analgosedation in patients with severe traumatic brain injury.

Materials and methods. The study involved 60 patients with severe isolated traumatic brain injury. Patients were treated in intensive care unit in 2016. In the group I (30 people) for analgosedation were used morphine in a dose of 0,03-0,04 mg/kg/hour and sodium oxybutirate in a dose of 10-15 mg/kg/hour, in the group II (30 people) for analgosedation to the complex of morphine and sodium oxybutirate in the above-mentioned dose was added dexmedetomidine in the dose of 0,2-0,7 mcg/kg/hour as a component with sedative, analgesic and neuroprotective effects. The levels of stress hormones (cortisol and insulin) in serum and the dynamics of changes in the level of impaired consciousness on the GCS, duration of sedation and mechanical lung ventilation were assessed.

Results of research. It was found, in the group II, where as a component of analgosedation was used dexmedetomidine, the decrease in levels of stress hormones (cortisol and insulin) was occurred faster than in the group I ($p < 0.05$), also the restoration of the level of consciousness was faster compared to the group I ($p < 0.05$). The duration of sedation and mechanical lung ventilation was not statistically different between the groups ($p > 0.05$).

Conclusions. Dexmedetomidine can be used as a component of analgosedation in the postoperative period in patients with acute severe traumatic brain injury since it contributes to early reduction of tension stress reactions, can improve the dynamics of the level of impaired consciousness according to the GCS, and also does not lead to prolonged sedation and mechanical lung ventilation.

Shpylenko O.

**TREATMENT OF PURULENT NECROTIC COMPLICATIONS OF
DIABETIC FOOT SYNDROME BY LARVAE OF FLIES LUCILLIA
CAESAR**

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Introduction. According to the World Health Organization reports, the number of people with diabetes has risen from 108 million in 1980 to 422 million in 2014. Diabetic foot syndrome (DFS) prevalence in the high-income countries among those, who suffer from diabetes, is 4-10%. The development of purulent necrotic processes caused by Diabetic foot syndrome in 50-75% cases lead to amputation, which is 17-45 times higher risk then among those, who does not have diabetes. Around 30% of patients after their first amputation need second amputation during next 3 years, and 50% during 5 years. In the development of necrosis, new organ-preserving methods can improve earlier achieved results and reduce social and economic costs. One of the methods is a biological debridement where disinfected maggots (fly larvae) are involved.

Materials and methods. Harmless for people, though effective in the treatment of purulent wounds are maggots of a green blow flies. Particularly for our research, we used most common of the blow fly species, *Lucilia Caesar*, a member of the fly family

Calliphoridae. The flies were kept in specially built incubator under the temperature 28-30 °C, with feeders and drinkers established inside it. Fly eggs were disinfected with a 70% ethanol solution and UV light. For the storage and transportation were used disposable sterile tube with cap. After obtaining the patient's consent, maggots were introduced to a wound according to the technique that we elaborated. Wound condition and maggot effect were visually controlled during the bandaging. Additionally, medical examination results were recorded on the photos.

The amount of residual necrotic tissue, fibrin plaque in the wound were estimated, as well as the emergence of clean, shiny, bleeding granulations. The study involved 10 DFS patients who were treated in a purulent-septic Center at the local Hospital № 3 in Zaporizhia city, during the period of 2016 to 2017. Study included patients with diabetes type 2, with local necrotic purulent complications of DFS.

Patients went through the complex clinical, laboratory (general clinical testing, glycated hemoglobin, lipidogram, platelet count, electrolyte balance, etc.) and instrumental examination (Doppler ultrasound) of lower extremities. Along with surgery, patients were treated with conservative therapy integrated with the advice of doctors. Main group included 5 patients, who received topical treatment with maggots and 5 patients were treated according to standard methods. Groups did not differ significantly by age, gender, comorbidities, major vessels condition and medication ($P > 0,05$).

Results of research. 4 patients (80% of participants) from the main group had partial cleaning of the wound after the first procedure and positive dynamics in the next procedures. Wound cleaning from the necrotic tissues followed by emergence of granulations (transition from purulent necrotic process of the wound into a phase of regeneration). There was no signs of superinfection and overall condition was stable. 2 (40%) patients have noted mild itching and pain in the wound on the third day after the maggots were settled into the wound, but after the adult larvae were replaced by younger forms, complaints had ceased. One case (20%) had negative result, caused by worsening severe ischemia and general pathological condition of the patient. Wet necrosis zone had been spreading out without the tendency to defined demarcation, therefore maggots treatment had been terminated.

In the MDT group 4 (80%) patients complete time to cleaning of the wound was 14 ± 3 days, in the control group - 5 patients (100%) - 22 ± 5 days. Number of larvae settlements to the wound was 4 to 5 times, duration of applying 48-72 hours.

Conclusion. Maggot debridement therapy of the purulent necrotic wounds of DFS is a safe, effective method that facilitates more rapid purification and wound healing in patients with DFS complications, allowing more carefully remove and save not damaged tissues. However, this method of treatment is effective in limited necrosis demarcation and cannot replace surgical treatments on the progression of purulent necrotic processes, continuous expansion of necrosis and, in severe limb ischemia.

Sokur O.

THE METHODS OF CORRECTION OF POST-SURGICAL COGNITIVE IMPRAIMENT

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Introduction. The aim of our study was to assess the effect of general anesthesia on the cognitive function of patients in the surgical profile of different age groups, followed by the development of adequate therapies.

Materials and methods. The study was conducted in surgical departments on the basis of the Kharkov City Clinical Emergency Hospital. Surgery was performed under conditions of general anesthesia using artificial ventilation using propofol, thiopental sodium with fentanyl. During the study, the state of cognitive function in the postoperative period was evaluated in patients of young and old age. The study was in comparison with the preoperative period on 1,7,30 days after the operation. The study of cognitive function was carried out on the MMSE scale, the test of drawing the clock, the test of AR Luria, the FAB scale, the Schulte method. In the pre-operative period, the state of cognitive function had the following status: in young people, according to the MMSE test, 9% below the norm, the test for drawing hours and data according to the Schulte method was within the normal range, according to the FAB scale - below the norm by 6%; Luria - below the norm by 14%. In elderly patients, the state of cognitive function had more pronounced changes: the MMSE test was below the norm by 23%, the test for drawing hours below the norm by 10%, the Schulte method was lower by 17%, the FAB scale was below the norm by 16%, the test A.R.Luria - below the norm by 40%. Given the literature data, the pathogenetic effect of general anesthesia on the state of cognitive function, correction of cognitive impairment was made possible with the use of citicoline, cytoflavin. Based on the use of these neuroprotective correction schemes, the Patent of Ukraine for the utility model (2014) was obtained. On the first day after the operation, the state of cognitive function in young people was obtained: the MMSE test was lower by 6% from the preoperative period and completely restored on day 7. The state of the test drawing hours, test AR. Luria and on the FAB scale was restored on the 7th day. Data on the Schulte method recovered up to 30 days. In the elderly: the indicators for the MMSE test, the test of drawing the clock, on the FAB scale and the Schulte tables were restored to 30 days for preoperative state.

Results of research. The obtained results of the state of cognitive function in comparison with the preoperative period indicators of the postoperative period allowed to formulate a method of correction of postoperative cognitive dysfunction. The main direction is the use of neuroprotective drugs, depending on the age, 30 minutes before the end of the operation, again after 12 hours and daily for 5 days according to the scheme.

Conclusions. The results of changes in the state of cognitive function after surgery with the use of neuroprotective therapy schemes, depending on the age, allowed us to recommend these methods of correction.

Srinath S.

**DYNAMICS OF INDICATORS OF QUALITY OF LIFE OF PATIENTS
WITH CHRONIC CRITICAL ISCHEMIA OF LOWER LIMBS**

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Introduction. Chronic critical lower limb ischemia (CCLI) caused by infrainguinal atherosclerosis is an important source of death and disability. The number of deaths per year ranges from 10% to 40%, and without revascularization up to 40% of patients are at risk of losing limbs within six months. The global epidemic of diabetes, combined with smoking, diet and lifestyle trends, ensures that the level of the CCLI will continue to grow. Intermittent claudication, pain, trophic ulcers and necrosis, as well as concomitant diseases make this population extremely vulnerable when considering the safety and efficacy of new therapies and to study the results of treatment of patients with chronic critical lower limb ischemia with distal vascular lesion treated by various methods and stimulation of neoangiogenesis by determining the quality of life of these patients during the course of the year.

Materials and methods. The study involved 105 patients with CCLI with a distal vascular lesion that were treated in 2013-2016. The average age of the patients was 63 years (from 38 to 86 years), the age of the patients being slightly different depending on the etiological factor of chronic ischemia - in patients with obliterating atherosclerosis without diabetes, the age averaged 61.6 years (from 53 to 86) with Diabetes mellitus - 66,2 years, and in patients with endarteritis and thrombangiitis the average age was 47.2 years.

All patients were divided into two groups: the main group and the comparison group. The comparison group consisted of 50 patients who received therapy according to indications, the main group included 55 patients who were on treatment from March 2015 to May 2016, who were additionally treated with plasma therapy to stimulate neoangiogenesis. The quality of life of patients were determined during treatment, and also 6 and 12 months after treatment.

Results of research. Interpreting data on the dynamics of the quality of life level of patients with CCLI showed that patients who were treated with the help of CBA showed the highest Quality of life, indices at earlier times and significantly differed from the corresponding parameters in patients treated by other methods, as well as between the two groups — Main Group is 100% lower than pain, 1.1% higher than FF, 14.7% higher than PF and 11.8% greater distance from painless walking compared to the comparison group at 12 months. Negative dynamics of treatment was noted in patients with conservative therapy and open sympathectomy.

Conclusions. On the basis of the data obtained, it can be concluded that stimulation of neoangiogenesis makes sense as an auxiliary method for treating patients with CCLI with a distal vascular lesion.

Sukhodolska O., Spuzyak A., Gavrylenko N.

COMPLEX X-RAY AND ENDOSCOPIC DIAGNOSIS OF THE BRONCHOPULMONARY CARCINOID

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Introduction. Neuroendocrine tumors (NET) are rare the tumors of epithelial cells of the diffuse neuroendocrine APUD (Amine Precursor Uptake and Decarboxylation) system. NET of bronchopulmonary system occur up in 27% of all species of neuroendocrine tumors and approximately in 20-25% of all lung tumors (Delektorskaya VV, 2015).

According to the WHO classification of tumors of the lung, pleura, thymus and heart four main subtypes of lung NEP are identified: typical carcinoid, atypical carcinoid, large-cell neuroendocrine carcinoma and small cell-carcinoma.

Bronchopulmonary carcinoid (BPC) reaches 1-2% of all lung tumors, while atypical carcinoid amounts up to 10% in the group of carcinoid tumors (Travis W.D. at all., 2011).

The main methods of BPC diagnostic are radiology, bronchial and morphological studies.

Therefore, a comprehensive X-ray endoscopy with a mandatory morphological material takes a fundamental role in the detection of lung carcinoid.

Material and methods. The study included 1,630 patients aged from 35 to 75 years, with an X-ray-identified pathology. Radiography of the chest, computer tomography, bronchoscopy with transbronchial biopsy (TBB) and morphological study of biopsy from the affected area were carried out to all the patients. Lung carcinoid was diagnosed to 21 patients (1.3%) aged $48 \pm 7,8$ years.

Results of research. Central of the BPC was diagnosed to 5 (23.8%) patients, peripheral - to 16 (76.2%). In the cases of central form upper lobe atelectasis was defined to 4 (80.0%) patients, hypoventilation - to 1 (20.0%). Bronchoscopy showed, that center carcinoid was located near the bifurcation of the bronchi partial, had a clear smooth contours, expressed vasculature, smooth surface due to intact mucosal epithelial layer. During X-ray scrutiny peripheral carcinoid manifest itself as focal shadow of 25 ± 12 mm. A clear outline determined in 87.5% of cases, unclear, radiant path, with a few strands toward the root of the lung was detected in 12.5% of cases. BPC structure was homogeneous in 81.2% of cases, in 18.8% - heterogeneous due to calcifications.

In typical morphological study (benign) carcinoid was detected to 14 (66.7%), malignant - to 7 (33.3%) patients. All patients were operated BPC: lobectomy performed in 33.3% of cases, segmental resection - in 66.7%. Chemotherapy was carried out to all patients with malignant carcinoid (33.3%).

Conclusions. Full notion about the size and spread of tumor in the lung was obtained by X-ray research.

Morphological examination (cytological and histological) allows not only to carry out differential diagnosis of benign tumors and lung cancer, but also to determine BPC option that will affect the choice of treatment tactics and thus prognosis of the disease.

Trehub Y.

LAPAROSCOPIC SLEEVE GASTRECTOMY FOR THE TREATMENT OF MORBID OBESITY

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Introduction. Surgical treatment of morbid obesity is a long and complex process, including preoperative examination and long postoperative follow-up of the patient in the period, aimed to ensure long-term effectiveness of the operation.

The range of operational methods of treating obesity is quite wide, and the indications for these interventions and evaluation of their effects are not universally accepted and agreed. Laparoscopic sleeve gastrectomy (SG) is one of the most effective operations for treating this pathology, along with gastric banding and gastric bypass.

Materials and methods. From 2012 to 2016, 17 SG operations were performed in the clinic. The mean age of the patients was 43.5 years. Gender composition: 64.7% (11) - females, 35.3% (6) - males. As an indication for the operation the morbid obesity with a body mass index (BMI) > 35 was considered. Contraindications were: age <20 and > 60 years, pregnancy, 2-3 stages peptic esophagitis, stomach and duodenal peptic ulcer. The observation period was from 4 to 36 months. The duration of SG was 76 minutes on average. The operation was performed using a standard laparoscopic technique, the stomach is resected using the linear stapler. To evaluate the results of treatment, we used BMI and percentage excessive weight loss (EWL%).

Results of research. In our study, we observed no serious complications and postoperative mortality in the study group. The short-term postoperative period was satisfactory. In 1 case (5.9%), the formation of subcutaneous seroma of the postoperative suture was noted. All patients were discharged from the hospital in a satisfactory condition for 5-7 days. The initial BMI of patients was 47.3 + -6.1. During the first three years of observation, there was a tendency for progressive weight loss. EWL% for the 12th month of postoperative follow-up averaged 54%, for the 24th month - 59%, for the 36th month - 62%. The average BMI for the 12th month of follow-up was 35.2, for the 24th month - 34.1, for the 36th month - 33.5.

In 11,8% of the observed (2 cases) during the postoperative period gastro-esophageal reflux was diagnosed, which required conservative treatment.

Conclusions. Laparoscopic SG is a minimally invasive surgery that provides a reliable reduction in body weight in patients with morbid obesity. SG demonstrates marked reduction in body weight in patients with morbid obesity in the first three years of postoperative follow-up. This group of patients requires further monitoring to determine the dynamics of weight loss and possible complications in the long-term treatment period.

Vasylyev D.

THE CASE OF THE DIAGNOSTICS OF ANTIPHOSPHOLIPID SYNDROME IN PRACTICE OF CARDIOVASCULAR SURGEON

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Introduction. The basis of the pathogenesis of antiphospholipid syndrome (APS) development is the persistent activation of the hemostatic system, caused by the intensification of thrombotic processes with simultaneous weakening of antithrombotic processes in the body, which inevitably leads to a relapse of thrombogenesis. Herewith, antiphospholipid antibodies (APL-antibodies) interacts with phospholipids forming the vascular and thrombocytes' endothelium, thereby provoking activation of thrombocytic cells, loss of antithrombogenic properties of the vascular endothelium and violation of fibrinolytic processes.

Materials and methods. We examined the patient P., born in 1987, who was observed in the department of acute vascular pathology of the Institute of General and Urgent Surgery of the NAMS of Ukraine named after V.T. Zaitsev" (SE "IGUS NAMSU") in connection with the carried unprovoked thrombosis of the deep veins of the lower extremities and pulmonary embolism of the pulmonary artery (PE). The patient was performed the thrombolytic therapy for PE with subsequent anticoagulant therapy. In order to clarify the pathogenetic cause of thrombosis, the patient underwent a complex examination for the presence of laboratory markers of thrombophilic conditions.

Results of research. At a biochemical examination, moderate hyperhomocysteinemia was found - 16.01 $\mu\text{mol} / \text{L}$ (at the age norm up to 15 $\mu\text{mol} / \text{L}$) and 3 laboratory APS markers: positive screening (126.2 sec at the norm 31.0-44.0) and confirming (48.2 seconds at the norm of 30.0-38.0) tests for lupus antibodies (LA-auto index 2.618 at the norm from 0.8 to 1.2), titers of IgG antibodies to cardiolipin and β 2-glycoprotein I - more than 160 units / ML (at the norm up to 20.0). To clarify the form of thrombophilia, a molecular PCR study was performed, which revealed heterozygous carriage of mutations in the F7 genes (blood clotting factor VII), serpine 1 (PAI-1), ITGB3- β -integrin and homozygous carriage of the A66G mutation in the MTRR gene (methionine-synthase reductase) of folate cycle.

To confirm the APS diagnosis in 12 weeks, the patient repeatedly underwent the biochemical examination, according to the results of which the homocysteine level was normalized to 14.77 $\mu\text{mol} / \text{l}$. However, the high titer of APL antibodies is preserved: screening (112.4 seconds at the norm 31.0-44.0) and confirming (42.5 seconds at the norm 30.0-38.0) tests for lupus antibodies (LA-auto index 2.645 at the norm from 0.8 to 1.2), titers of IgG antibodies to cardiolipin and β 2-glycoprotein I - more than 160 U/ml (at the norm up to 20.0).

Conclusions. In the described clinical observation the presence of a genetic background in a male patient - the heterozygous carriage of mutations in the genes responsible for blood coagulation (F7, PAI-1 and ITGB3- β -integrin), as well as homozygous carriage of a mutation in the MTRR gene associated with a violation of homocysteine methylation, increased synthesis of APL antibodies led to the development of hypercoagulable syndrome and thrombosis processes at a young age.

Timely diagnosis and individually developed pathogenetic therapy allowed avoiding life-threatening complications of APS, as well as improving the patient's quality of life. A conclusion about the need for APS and hereditary thrombophilias' examination to all patients of young age with unprovoked thrombosis of deep veins of lower extremities and PE was made.

Volik M., Sahirov V.

MODERN METHODS OF THE TREATMENT OF PATIENTS WITH PREMATURE EJACULATION

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Introduction. Ejaculatory disorders take a significant place (31%) in the couple's sexual disharmony in any age group. Premature ejaculation (PE) is the most common disease among the disorders of ejaculation. It's characterized by lack of the control of ejaculation, reduced sexual satisfaction and interpersonal conflicts with partners.

The aim of the study was to develop a treatment algorithm and to improve the sexual function in men with PE, and to determine the efficiency of this treatment.

Materials and methods. Based on the department of andrology of Regional Clinical Center of Urology and Nephrology named after V.I. Shapoval, 114 patients with PE were studied and treated. To determine the PE, the intravaginal ejaculation latency time (IELT) test was used, according to which PE forms were identified: "severe" - ejaculation occurs before the insertion, or $IELT \leq 15$ sec, "moderate" - $IELT \leq 1$ min and "mild" - $IELT \leq 2$ min. Patients with the moderate and severe form of PE of the primary genesis were included in our study. Patients were diagnosed and during our research we have done: a collection of sexual history, an estimation of the psychoneurological status on the Hamilton scale, an ultrasound of the urinary and reproductive systems, an objective estimation of PE using the questionnaire method to obtain the Index of Premature Ejaculation and The Premature Ejaculation Profile. The first two groups of patients with the moderate form of PE were prescribed serotonin reuptake inhibitors (SRIs): the first (36 people) - a long course (6-8 months), the second (38 people) - "on demand" Dapoxetine, for 2 hours before sexual intercourse. To the 3rd (40 people) group included patients with a severe degree, which was the indication for microsurgical treatment – selective neurotomy. The efficiency of the treatment was assessed as subjectively (sexual intercourse satisfaction), and objectively (prolongation of intravaginal time before ejaculation, data of biotenzimetry).

Results of research. According to the our treatment for PE we were defined the following efficiency (81.3-96.2%): of long-term using SRIs was 81.3% (the primary effect was higher, but some patients abandoned treatment because of side effects); of taking dapoxetine "on demand" was 84.8%; of microsurgical treatment in patients with heavy PE was 96.2%, the average increase of the duration of sexual intercourse is 4.23 times.

Conclusions. 1. Using the above methods allows to achieve good results (81.3-96.2%) of PE treatment.

2. The successful is using SRIs with higher efficiency “on demand” (84,8%) and fewer side effects.
3. We recommend to the patients with severe PE earlier surgical treatment (selective neurotomy, partial dorsal neurotomy), efficiency at 96.2%. This method is safe (after 6 months, the sensitivity of the glans penis is returned to approximately 50% of baseline) and the most cost - effective method for the treatment PE.

Voronaya J.

TEMPERATURE REGIME IN THE DYNAMICS OF TREATMENT OF CRITICAL LIMB ISCHEMIA PATIENTS

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Introduction. Chronical limb ischemia (CLI) value of all vascular problems is above 20% and 2-3% of population. Frequency of amputations in patients with vascular pathology in Ukraine and abroad reaches 59% and the mortality rate reaches 48%. This disease mostly progress. According to TASC, among patients with CLI from 10 to 30% live less than 6 months, and 25-30% of patients may need a "big" amputation. If untreated for 1 year one-quarter of patients die, one third will undergo amputation of one or both legs, while others will live with both limbs. After 5 years, more than half of patients with CLI are dead. In addition, the quality of life of patients with CLI compared with cancer patients in terminal stages and were noticed to be the same.

Materials and methods. One of the methods of monitoring the state of the circulatory system in the lower limb is contactless thermometry. The aim of our research is to study the dynamics of the temperature regime of the lower extremities in patients with CLI who received different type of treatment: non-surgical and surgical combined with plasmotherapy.

55 patients with CLI with distal type of leasion were enrolled in the research. To calculate the results, it was decided to calculate the average value of temperatures leg and foot for each mode of both limbs. It was decided to drive a comparison between the two lower limbs of patients in each period. It should be noted that the comparison was made between control and diseased limbs.

Results of research. These comparisons showed a significant difference in the temperature measurement mode shins surface temperature - after ending the treatment of patients was on average 1,09°C (3.3%) warmer than control limb (p =0.012), and after 12 months. - 0.7 ° C (2.1%) (p =0.000), and body temperature measurement mode - at the beginning of treatment (baseline) shank patient was on average 1,1°C (2.9%) cooler controls (p =0.001) and 12 months. - 0.7 ° C (2%) (p =0.000). The temperature of a sick foot mode surface temperature at baseline was on average 1,2°C (4.2%) cooler then control (p =0.002) and body temperature mode - 1.3 (4%) cooler than control (p = 0.005).

Conclusions. Further comparison showed improbable difference between sick and control limbs, indicating that the equalization temperature of both limbs. Such

dynamics can be explained by a gradual reduction of the effect of treatment within a year of observation and gradual development of collateral circulation.

Yanioglo O.

ORTHOTOPIC PLASTICS FOR URINARY BLADDER CANCER

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Introduction. In the structure of oncological diseases of the genitourinary system, bladder cancer takes the second place. Orthotopic substitution is considered as the best for today, as it possesses a low morbidity and secures the best possible life quality. The aim- research into the most efficient orthotopic substitution method.

Materials and methods. Treatment outcomes were analyzed for 37 patients aged from 48 to 66 years including 34 men (92%) and 3 women (8%). Patients after a cystectomy got the orthotopic reservoir from various segments: ileocecal 18 (48%), ileal 12 (32%), gastric 7 (20%). For two years after the surgery the patients underwent clinical, histological, and x-ray examinations.

Results of research. Assessment was conducted beyond 8 years after the operation. Long-term postoperative complications were allied with the formation of an orthotopic reservoir. Ileocystoplasty and gastrocystoplasty led to ureteral-pelvis reflux for 5 (32%) and 3 (42%) patients correspondingly, 2 (11%) patients had stones in reservoir, 4 (24%) patients possessed exacerbation of chronic pyelonephritis. Patients with an orthotopic reservoir from the ileum segment had urine stagnation 8 (66%) because of a significant expansion of the neocyst, which subsequently led to infection and stone formation. For gastro-cystoplasty, there was an insignificant increase in the reservoir, but urinary tract infections were not observed.

Conclusion. Complications occurrence does not depend on gender. Cystoplasty involving gaster segment is a perspective method, as it is followed by the minimal number of complications; however, in terms of functioning the desirable method is ileocystoplasty.

Yevtushenko D., Myroshnychenco D., Pius A.

THE RESULTS OF PREVENTING THE DEVELOPMENT OF ADHESIONS IN PATIENTS OPERATED ON THE ABDOMINAL CAVITY ORGANS

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Introduction. Abdominal adhesive disease - a serious illness, often occurring in young and working age. According to the literature, 55-70% of patients after abdominal surgery develop adhesions in the abdominal cavity, which can lead to such terrible complications such as acute adhesive intestinal obstruction. Postoperative mortality unfavorable course of acute adhesive intestinal obstruction reaches 16-25%.

Postoperative adhesions have negative influence on health in four ways: adhesions cause diseases, including bowel obstruction, infertility and pelvic pain; adhesions are associated with numerous surgical complications, which are leading to the large surgical load, high level of hospitalization and other health problems; all the negative effects result in significant economic costs. The purpose of our research - the prevention of the peritoneal adhesive disease in patients operated on the abdominal cavity organs and studying parameters of cell-mediated immunity in studied groups.

Materials and methods of research. The using of the barrier materials to isolate the wound surface of the abdominal cavity from the peritoneum allows regeneration of injured peritoneum, thereby reducing the risk of adhesions. For this purpose we have developed a method of separating colonic anastomosis zone after resection of colon tumor (Ukrainian patent number 59425) and introduced it in the 40 operations. After resection of a tumor-segment of colon we imposed the hardware circular anastomosis using plate Tachocomb and further covered the anastomosis by the plate Tachocomb. We have analyzed the different clusters of differentiation expression on the membranes of lymphocytes. Significant differences in the parameters of cell-mediated immunity were revealed in studied groups.

The results of the research. Were founded that in patients with abdominal pathology operated using improved techniques and who received drugs that prevent the development of adhesions in the early postoperative period, the content of major subpopulations of T-lymphocytes did not differ significantly from the reference values, was noted a slight increase in expression of the marker CD3 +, as well as somewhat decreased expression of the cluster of differentiation CD54 +, the molecule of adhesion. In cell-mediated immunity in the comparison group the significant decrease in the expression of the clusters of differentiation CD3 +, CD4 +, CD8 +, CD16 + (natural killer NK), CD19 +, CD25 + was observed, average of 1.5 - 2 times relative to the main group. Also in this group the increase of the percentage of cells which expressed a differentiation marker of CD95 + and HLA-DR + was observed.

Conclusion. By the development of the anastomosis formation procedure we achieved the improvement in mechanical strength, biological integrity of anastomosis and isolation of the anastomosis zone from parietal peritoneum, which reduces the risk of adhesions in the abdominal cavity. Among 40 patients who were operated using our methodology of imposition of the colon anastomosis in the GI Zaycev V.T. institute of general and urgent surgery National academy of medical sciences of Ukraine we have revealed no complications in the early and late postoperative periods during the observation time.

Zhadan J., Sazonova T.

PRIORITY DRUG COMBINATION FOR ANESTHESIOLOGICAL SUPPORT OF VIDEOENDOSCOPIC SURGERY IN CANCER PATIENTS

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Introduction. The beginning of the XXI century is characterized by high rates of development of scientific and technological progress. World technologies are constantly developing and improving, providing new opportunities for social institutions, humanities and people on the whole. In recent decades, significant progress in advanced optical and video technologies has given a tangible impetus to the proliferation of endoscopic research capabilities. This diagnostic method is valuable in the search of oncological pathology of the gastrointestinal tract, tracheobronchial tree, bladder, because it allows not only to determine the localization and morphology, but also allows to obtain a histological material for solving further tactics of the treatment.

Routine esophagogastroduodenoscopy (EGD) and colonoscopy can often be performed with minimal or moderate sedation; these sedation practices vary widely throughout the world. In the United States, more than 98% of EGDs and colonoscopies are performed with sedation. On the other hand, in many European and Asian countries, routine EGD is often performed under pharyngeal local anesthesia without intravenous sedation or general anesthesia, and colonoscopy is performed without sedation.

Materials and methods. The study was carried out in Anesthesiology Department of Grigoriev Institute of Medical Radiology of NAMS of Ukraine. The study involved 36 patients aged 36-70 years (19 men and 17 women) with exophageal neoplasms. They were divided into 4 groups of 6, 8, 10 and 12 people, respectively. In order to provide anesthesia support in the first group intravenous fractional infusion of Sibasone was used. In the second group Fentanyl was used as an analgesic component to Sibasone. Propofol and its combination with Fentanyl was administered to patients of the third and fourth groups. Influence of the medicines was analyzed by monitoring indicators such as heart rate, blood pressure, BH, SaO₂, PaO₂, PaCO₂, the speed of awakening after finishing the procedure, the frequency of nausea and vomiting.

Results of research. The patients of the second and fourth groups had more often respiratory disorders, which were characterized by SaO₂ decrease and PaCO₂ increase. Patients of the first and third group tolerated anesthetic support without significant hemodynamic and respiratory disorders. It is necessary to pay attention to the softer and more stable mono-sedation with Propofol: the majority of patients (76%) showed no external sympathetic reactions with the exception of 69% of patients in the third group. Nausea after regaining consciousness is associated with insufflation of air in the intestinal tube and increased intra-abdominal pressure. Vomiting was twice observed in the third group, and once in the first and fourth groups.

Conclusions. Based on the results obtained, it can be argued that to ensure the quality of anesthetic support during videoendoscopy in cancer patients it is advisable to use a combination of Propofol and Fentanyl due to a proper sedative and analgesic actions,

fewer vital disfunctions and reduction of the time of recovery and discharge from hospital.

Zienovieva O.

**THE EFFECTIVENESS OF INTRAVITREAL AFLIBERCEPT INJECTIONS
IN THE TREATMENT OF MACULAR EDEMA IN PATIENTS WITH TYPE
1 DIABETES MELLITUS**

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Introduction. Diabetic macular edema (DME) is the leading cause of blindness in patients with diabetes mellitus (DM). DME develops in 30-40% of patients with type 1 diabetes in 9 to 14 years from the onset of the disease. Hematoretinal barrier disruption leads to the penetration of plasma elements from microcirculatory vessels into retinal tissue, causing edema. A new treatment for DME is based on local inhibition of vascular endothelial growth factor (VEGF), which is the main cytokine in increasing vascular penetration. We studied the efficacy of intravitreal injections (IVI) of anti-VEGF drug aflibercept (“Ailia”).

15 patients with DME and DM of type I, Ages from 18 to 62 years; Women - 10, men - 5. The observation period from January 10 to December 10, 2016. Hemoglobin A1c levels between 6.7% and 10.4%.

Materials and methods. All patients had a decrease in visual acuity in a wide range from 0.6 to 0.1. The average visual acuity (VA) was 0.25 ± 0.03 . On the Amsler grid, in all patients, we detected central relative scotomas ranging from 15° to 10° from the fixation point and central metamorphs. During autoperimetry, multiple central and paracentral scotomas were recorded, in addition a decrease in sensitivity in the macular region to 6 dB. With ophthalmoscopy: the presence of hemorrhages of hard and soft exudates perimacularly and along vascular arcades. According to the changes in the retina, a diagnosis of non-proliferative diabetic retinopathy occurred in 6 patients; Pre-proliferative diabetic retinopathy - in 9 patients.

Optical coherence tomography (OCT) of the macula: 1) intra-retinal cysts (single and multiple; different sizes; foveolar, parafoveolar); 2) diffuse retinal edema with an increase in the central foveal thickness (CFT) from $290\mu\text{m}$ to $780\mu\text{m}$. The average CFT was $502.4\mu\text{m} \pm 21\mu\text{m}$.

Results of research. All 15 patients had: 1) increased visual acuity, VA was 0.48 ± 0.05 ; 2) a decrease in macular edema according to OCT CFT decreased to an average of $290.8\mu\text{m} \pm 12\mu\text{m}$; 3) the number of central and paracentral scotomas decreased and the sensitivity in the macular area increased to an average of $19\text{dB} \pm 2\text{dB}$.

Conclusion. 1) the use of Ailia in patients with type 1 diabetes promotes regression of DME (according to OCT: CFT decreased from $502.4 \pm 21 \mu\text{m}$ to $290.8 \mu\text{m} \pm 12 \mu\text{m}$. 2) regression of DME consistently leads to improvement of visual functions (VA increased from 0.25 ± 0.03 to 0.48 ± 0.05).



OBSTETRICS AND GYNECOLOGY



**INTERNATIONAL SCIENTIFIC
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CONGRESS**



Aralova V.

THE STATE OF CELLULAR IMMUNITY OF PREGNANT WOMEN WITH PREECLAMPSIA

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Introduction. Modern ideas about the gestosis` etiology include the hypothesis of the role of local immune mechanisms in the induction of pathological development of the vessels of the fetoplacental complex. According to this hypothesis, a breach of the invasive ability of trophoblast can occur as a result of an inadequate immune response of the maternal organism in the form of an imbalance between the cytotoxic and suppressor components of the cellular immune complex.

The purpose of our work was to identify patterns in changes in the cellular immunity in pregnant women with preeclampsia.

Materials and methods. 40 pregnant women in the period of 37-38 weeks were selected and formed 2 investigated groups. The first (main) group consisted of 20 patients with signs of late gestosis of varying severity. The second (control) group included 20 women with a physiological pregnancy.

The program of immunological studies included the determination of the population and subpopulation composition of immunocompetent blood cells by indirect immunofluorescence using monoclonal antibodies. The content of cells carrying differential human leukocyte antigens into CD3 + (T-lymphocyte) lymphocyte differentiation (CD) clusters, CD4 + (T-lymphocytes helper / inducers), CD8 +, (T-suppressors), CD16 + (natural killers) in relative indices was identified.

Results of research. In the physiological course of pregnancy, the relative level of lymphocytes was $21.04 \pm 1.15\%$, while in pregnant women with preeclampsia this index was within the range of $14.97 \pm 1.58\%$ ($p < 0.05$).

The CD3 + (T-lymphocyte) content in the pregnant control group was $54.41 \pm 2.54\%$, while in the I group it was $38.49 \pm 2.84\%$, ($p < 0.05$).

The number of CD4 + (helper T-lymphocytes / inducers) in the blood of women with a physiological course of pregnancy was determined at the level of $9.5 \pm 0.58\%$, in the group with preeclampsia this index reached $18.71 \pm 2.68\%$ ($p < 0.05$).

The level of relative parameters of CD8 + (T-suppressors) in pregnant control group was $24.95 \pm 0.87\%$, while in the main group this index was $17.01 \pm 0.96\%$ ($p < 0.05$).

The number of CD16 + (natural killers) in the blood of women with the physiological course of pregnancy was determined at the level of $9.18 \pm 0.94\%$, in the group with preeclampsia this index was higher and amounted to $18.42 \pm 2.11\%$ ($p < 0.05$).

Conclusions. Based on the data obtained during our study, it was revealed that preeclampsia is accompanied by an increase in the level of T-helpers (CD4 +), natural killers (CD16 +) and a decrease in T-suppressors (CD8 +). This indicates an increase in the cytotoxic effect of immune complexes on invasive trophoblast processes in the spiral arteries of myometrium, which may be a pathogenetic link in the development of late gestosis in pregnant women.

Arogundade F.

VIRILIZATION IN FEMALE NEWBORNS DUE TO LUTEOMA OF PREGNANCY

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Introduction. Luteoma of pregnancy is a rare, benign, non-neoplastic, uni- or bilateral ovarian tumor-like mass that emerges during pregnancy and like the potential virilization of mother as well as her female child postpartum, they spontaneously recede in about 3 months. However, they may cause complications due to a mass effect or hemorrhage secondary to torsion. It is usually asymptomatic, detected incidentally during laparotomy (cesarean section or postpartum tubal ligation) in late pregnancy and require no radical surgical treatment. It is felt to be a non-neoplastic lesion hormonally active or stimulated with production of androgens resulting in maternal and fetal hirsutism and virilization respectively. It is due to an unusual response of ovarian stromal cells to the altered hormonal levels of pregnancy and is characterized by solid proliferations of luteinized cells resulting in a tumor-like ovarian enlargement.

Aim to determine virilizing effect of luteoma of pregnancy on mothers and female newborns.

Materials and methods. The research is based on medical statistical data which was obtained from a hospital in Nigeria. Endocrine studies were performed in 2 cases of luteoma of pregnancy. It was determined the level of peripheral testosterone, androstenedione, dihydrotestosterone, progesterone, 17 alpha-hydroxyprogesterone and estradiol in the blood One of them was seen with hirsutism during a second trimester pregnancy and then discovered during cesarean section, the other was discovered incidentally at the time of postpartum tubal ligation, they were both found to be functionally active, secreting several androgens.

Results of research. Steroid concentrations were measured in the ovarian vein blood draining the luteoma in one patient as well as in peripheral vein and cord blood in both patients: Peripheral testosterone, androstenedione, dihydrotestosterone, progesterone, 17 alpha-hydroxyprogesterone, and estradiol were increased severalfold higher than the normal controls.

The concentrations in the ovarian vein were significantly greater than those in the peripheral vein and cord blood, which indicates active secretion of these steroids by the luteoma.

Conclusions. High maternal serum testosterone levels due to a luteoma can result in virilization in the female newborn. Determination of serum androgen levels taken at intervals post partum, indicated spontaneous regression of the luteomas. Urinary 17-ketosteroids, and plasma testosterone fell from markedly abnormal values to normal limits within 2 weeks of delivery. Patient's condition improved as well. Although the mass significantly decreased in size postpartum, it could still be visualized, through ultrasonography, 14 months postpartum. Recognition and an accurate diagnosis of this entity is important since it can be confused with ovarian malignancy, so that unnecessary oophorectomy, with concomitant risk to both the mother and the fetus, is avoided.

Bagmut A.

NEURO-EXCHANGE-ENDOCRINE SYNDROME AS ONE OF THE FACTORS OF SECONDARY INFERTILITY

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Introduction. In the last decade, our understanding of the role of the hormonal function of the ovaries, the biological properties of sex hormones and their participation in the metabolic processes of the body has significantly expanded. This article discusses the often encountered in practice gynecological pathology, the cause of which is a violation of the hormonal function of the adrenal and ovaries on the background of diencephalic symptoms and progressive obesity.

Materials and methods. Patients with NEES make up about a third of women with a reproductive dysfunction against obesity. In 1970, V.N. Serov was identified in a special form of "postpartum obesity". With this pathology, the synthesis and release of β -endorphin increases in the nerve cells of the hypothalamus and the formation of dopamine decreases. Thus in ovaries the process of ovulation is disturbed, chronic anovulation leads to cystic atresia of follicles, hyperplasia of the cells and the sides responsible for the formation of androgens. In NEES, polycystic ovaries are formed as a consequence of hypothalamic and adrenal pathology. It is shown that when the body mass index is increased by one, the testosterone level is increased by 0.06 nmol / l. A distinctive feature of this pathology is a secondary disorder of the menstrual cycle after the impact of various factors (childbirth, abortions, neuroinfections, etc.). Violation of the menstrual cycle begins with delays in menstruation, which are becoming longer, and in the formation of polycystic ovaries develops oligo- or amenorrhea and chronic anovulation. As a consequence, develops infertility.

Results of research. With endometrial biopsy, hyperplastic processes and adenomatosis in the endometrium are noted up to 25%, which is undoubtedly associated with pronounced metabolic disturbances. Therefore, clinicians should treat these patients with oncological alertness. Treatment of neuro-exchange-endocrine syndrome presents certain difficulties, since restoration of menstrual and generative functions can be achieved only against the background of normalization of body weight. The most common mistake of practical doctors is to stimulate ovulation against obesity.

Conclusions. Damage to any department of the regulation of the menstrual cycle disrupts the physiological rhythm of the reproductive system as a whole, leading to the development of hormonal deficiency of the ovaries and impaired fertility. Violation of menstrual function or infertility is the reason for calling a doctor, whose task is to find the cause and conduct adequate treatment.

Chekhunova A.

CONSERVATIVE REHABILITATION ACTIVITIES IN WOMEN AFTER THE PERINEAL RUPTURE

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Introduction. Restoring the anatomical and functional integrity of the perineum in women with perineal ruptures in labor is one of the actual problems of modern obstetrics.

According to the literature, traumatization of the soft tissues of the birth canal is observed in every 3-5 maternity patients, with perineal ruptures occurring from 6 to 15% of cases. In turn, unsatisfactory results of healing of perineal injuries with a high probability lead to the development of serious gynecological pathology - omission and prolapse of genital organs. This disease is accompanied by a violation of the function of urination and defecation, frequent inflammation of the organs of the genital tract, which together significantly reduces the efficiency of the woman and the quality of her life. In this regard, the improvement of existing methods of restoring the perineum is an actual task of practical obstetrics.

Materials and methods. 58 women with a history of perineal trauma (breaks of the perineum of the I-II degree), aged from 25 to 35 years, were examined and treated. The 1-st group included 24 (41.4%) patients who underwent rehabilitation measures in the volume of traditional corrective gymnastics. The 2-nd group comprised 34 (58.6%) patients who underwent non-surgical correction with the help of volumizing agent.

Results of research. Against the background of the application of the volume-forming agent, the most pronounced positive dynamics of restoring the pelvic floor muscles was noted. A significant improvement in the condition implied an increase in the strength of the muscles of the pelvic floor when the perineometer sensor was compressed by 3 arbitrary divisions and above. So, in 1 group of women, a significant improvement in the condition was noted in 8 (33.3%), improvement was observed in 7 (29.2%) patients, lack of efficacy in 9 (37.5%) patients. In the 2nd group, a significant improvement was registered in 19 (55.9%), improvement in 12 (35.3%), absence of effect in 3 (8.8%) patients.

Conclusions. Thus, the developed method of optimization of rehabilitation measures allows to increase the effectiveness of treatment and to achieve stabilization of the process.

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DYSMENORRHEA IN ADOLESCENTS

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Introduction. Dysmenorrhea (DM) ranks first among disorders of the menstrual cycle and is a neuroendocrine syndrome, which cyclically repeats, sometimes completely

incapacitating girls during menstruation. The incidence of this disorder among gynecological diseases at puberty varies from 5 to 92%.

Primary DM, observed in most patients, results not only in incapacitation, but also to pronounced psychosomatic changes, from mild neurological conditions to severe psychotic syndromes. Most of the reproductive health disorders of adult women originate in childhood and adolescence. Therefore, timely diagnosis of the causes of painful menstruation, their adequate comprehensive correction and treatment of concomitant psychoneuroendocrine disorders become especially urgent.

Currently, the leading place among the theories explaining DM development belongs to prostaglandin theory, which is based on an innate or acquired disruption of synthesis or exchange of eicosanoids. High incidence of the disease and its medico-social significance are an important argument in the support of a thorough study of this problem.

Purpose. To study the risk factors for the development of dysmenorrhea of varying severity in adolescent girls.

Materials and methods. The study involved 102 adolescent girls aged 11-18, who were divided into 3 groups: Group 1 included 52 adolescent girls with DM syndrome of mild severity; Group 2 consisted of 37 patients with moderate-degree DM syndrome; Group 3 included 13 girls with severe form of DM syndrome.

The patients underwent comprehensive clinical, laboratory, instrumental, hormonal examination, as well as ultrasound (US) examination of pelvic organs, internal organs, thyroid and mammary glands. The state of somatic health of patients was determined, they were all consulted by a pediatrician and related specialists on indications for revealing extragenital pathology.

Results of research. Extragenital pathology (EP) was detected in 75% of adolescents with DM, and a relationship was established between its character and the severity of clinical manifestations of DM. Mild pain syndrome (67.2%) was shown to be more common in girls with gastrointestinal, musculoskeletal diseases and myopia. Moderate severity of DM (25.9%) was more common in patients with hepato-biliary, urinary and thyroid diseases. Severe form of DM (6.8%) was observed in patients with metabolic-endocrine and neurovegetative manifestations, with cardiovascular and neurologic pathologies, often in combination with myopia.

DM in patients with EP developed on unfavorable hereditary and premorbid background: one out of every four patients was born asphyxiated, 45% of the mothers had menstrual and reproductive disorders, as well as obstetric complications. In 71.6% of the mothers of the examined adolescents, painful menstruation was observed throughout life, in most of them before childbirth.

The mean age of menarche was 11 years 8 months \pm 9 months, regular cycle was preserved in the majority of the examined patients, however, in almost third of the patients pain syndrome was accompanied by occasional minor menstruation delays (from 5-10 days to a month). In the vast majority of patients, the duration of menstruation was 5-7 days.

Infectious index was 3 or higher in 48%, while 38% of the patients were registered with a pediatrician as sickly patients. Presentation was different depending on the severity of DM. Patients with mild DM severity had mild painful menstruation without systemic symptoms. The patients were not incapacitated and did not require

medication. Patients with DM of moderate severity complained of pronounced soreness of menstruation with irradiation to the lumbar region, the pain was accompanied by some dyspeptic disorders, headache, dizziness and chills. Patients reported a decrease in ability to work. In patients with severe DM, clinical manifestations were characterized by severe pain during menstruation, accompanied by a complex of metabolic-endocrine and neurovegetative symptoms, complete disability.

A significant proportion of girls with DM had autonomic dysfunction (AD). They were diagnosed with sympathicotonic, vagotonic, mixed types of AD, which character depended on the hormonal status and pathological changes in menstrual function. The most pronounced clinical manifestations of AD were observed in adolescents with a vagotonic form of dysmenorrhea with pain syndrome, accompanied by hormonal imbalance and hemodynamic disorders in the cerebral vessels of the majority of the examined patients, which was confirmed by Doppler examination.

Conclusions. The study showed that adolescent DM in most cases (75%) occurs secondary to extragenital pathology. It allowed to determine the relationship between the nature of extragenital pathology and the severity of clinical manifestations of DM.

Effiong U.

APOPTOSIS IN THE FEMALE REPRODUCTIVE TRACT

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Introduction. Throughout fetal and adult life, the balance of cell proliferation and cell death determines the size of cell populations in tissues throughout the body. Apoptosis, or programmed cell death, is the physiologic process of cell deletion. Cell death is critical in morphogenesis in the embryo and fetus as well as in maintaining tissue homeostasis in the adult. Throughout the menstrual cycle, cell death and renewal occur in the female reproductive tract in a highly regulated sequence. The process of follicular atresia and the cyclic shedding of the endometrium involve the process of apoptosis.

Materials and methods. The study included 24 females (30-40 years) with an average body weight of 65 kg. Leustatin was applied subcutaneously. During the experiment, the females were placed in wards under physiological conditions. The females received standard food and water without limitations. The females were randomly placed into 3 groups: one control group (C) and 2 study groups (A and B), each of which consisted of 8 individuals. The women in the study groups were given the drug at a dose of 0.10 mg/kg BW/24 h, for 7 consecutive days, at exactly the same time. The control group females received only food and water without limitations. In order to introduce a stress-inducing factor as that of the study groups, women in the control group were administered physiological saline subcutaneously in a volume corresponding to the amount of drug administered to females in the study groups. Decapitation of the females of both group A and control group was conducted 24 hours after the last injection. Decapitation of the females of B study group was conducted 4 weeks after

the last injection. Their oviducts were then taken for histomorphological and immunohistochemical tests.

Results of research. The oviduct epithelium of the analysed groups of women, in the histomorphological study, showed no discernible pathological changes under the light microscope at 400x magnification. Moreover, the epithelium lining of the oviducts of the tested females exhibited normal properties of single layer cylindrical epithelium. Moreover, in the mucous membrane we observed multiple folds directed along the line of the oviduct. We did not observe the supporting cells. Slightly less numerous were the secretory cells. These were characterized by more strongly eosinophilic cytoplasm and by having a considerable quantity of extended intracellular structures. The nuclei of these cells had an oval shape and had 2-3 nucleoli. All cells of the epithelium rested on well-defined basal lamina.

Conclusions. 1. Apoptosis plays a major role during folliculogenesis and dominant follicle selection and also plays part in corpus luteum regression. 2. During puberty, lumen formation is associated with the selective apoptosis of centrally located cells. In turn, postlactational involution of the mammary gland is characterized by the secretory epithelial cells undergoing programmed cell death.

Ekedigwe S., Chenai C., Matowe

HYPERTENSIVE DISORDERS IN PREGNANCY

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Introduction. Hypertension is the most common medical problem encountered during pregnancy, complicating 2-3% of pregnancies. Hypertensive disorders during pregnancy are classified into 4 categories, as recommended by the National High Blood Pressure Education Program Working Group on High Blood Pressure in Pregnancy: 1) chronic hypertension, 2) preeclampsia-eclampsia, 3) preeclampsia superimposed on chronic hypertension, and 4) gestational hypertension (transient hypertension of pregnancy or chronic hypertension identified in the latter half of pregnancy) (1). This terminology is preferred over the older but widely used term pregnancy-induced hypertension (PIH) because it is more precise.

Materials and methods. A longitudinal study of some women that were less than 20 weeks pregnant at booking was carried out. Blood pressure was measured for each woman at booking and at subsequent visits. Urinalysis was done at booking and whenever blood pressure was elevated. Patients were followed-up to delivery and 6 weeks postpartum.

Results of research. The frequency of pregnancies and birth, complications; late gestosis, in the Ukraine ranges from 10 to 15%. There is a clear trend towards an increase in the frequency of severe forms of gestosis, defining the structure of maternal and perinatal mortality. Preeclampsia was predominant.

The rate of preeclampsia ranges between 2% and 7% in healthy nulliparous women. The rate is substantially higher in women with twin gestation (14%) and in those with previous preeclampsia (18%).

Conclusions. In the most serious cases, the mother develops preeclampsia-or "toxemia of pregnancy"-which can threaten the lives of both the mother and the fetus. Delivery is indicated if the risk of complications is over 0,632 and/or when the signs of the aggravation of the fetus or the mother are registered and after the prevention activities of fetus respiratory distress syndrome.

Ellazova A., Blahoveshechensky R., Melnik K., Reznik M., Rakytyanskyi I.
**PATHOGENESIS OF ENDOTHELIAL DYSFUNCTION IN PREGNANT
 WOMEN WITH PREECLAMPSIA**

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Introduction. Preeclampsia occupies an important place among numerous types of obstetric pathology, being one of the most serious complications of pregnancy and childbirth. The problem of preeclampsia is determined by its incidence (7-16%) and the fact that this complication of pregnancy ranks second among causes of maternal mortality, and amounts for 17 to 40% of its obstetric causes. Preeclampsia is associated with high rates of perinatal loss. Currently, most researchers consider preeclampsia and its various clinical manifestations in terms of systemic endothelial dysfunction, which is accompanied by activation of platelet and vascular homeostasis, damage and dysfunction of erythrocytes, microcirculation disorders, vasoconstriction and impairment of regional, particularly utero-placental blood flow. Purpose. To identify pathogenic features of endothelial dysfunction in pregnant women with preeclampsia.

Materials and methods. The study was conducted at the clinical base of the Department of Obstetrics, Gynecology and Pediatric Gynecology. The study involved 200 pregnant women who were treated in the municipal healthcare facility "Kharkiv city hospital No. 1". The main group consisted of 50 pregnant women with mild preeclampsia, 50 women with moderate and 50 women with severe preeclampsia. Control group consisted of 50 women with physiological pregnancy. All the women underwent comprehensive clinical and laboratory examination. Additional studies included determination of the level of Willebrant factor (WF), endothelin-1 (ET-1) and S-nitrosothiol.

Results of research. In pregnant women with mild preeclampsia the content of WF increased 1.2 times, with moderate preeclampsia - 1.5 times, with severe - 1.8 times. The increase in WF is always associated with activation of coagulation and an increase in platelet factor secretion. Assessment of coagulation in pregnant with preeclampsia showed increased activity of coagulation (as compared to the control group) and the presence of thrombocytopenia. The determined damage of the endothelium (increased level of WF) triggers endothelial dysfunction, which may be a leading factor of preeclampsia. Endothelial dysfunction was studied by determination of ET-1 and S-nitrosothiols (stable metabolite of endothelium-secreting NO) levels. The study of S-nitrosothiols content showed that in preeclampsia (even in mild severity) it was significantly reduced, especially in severe degree (5 times) ($p < 0.01$). Assessment of ET-1 content showed that its level slightly increased in mild preeclampsia, in moderate

preeclampsia it was 1.5 times higher and 1.8 times higher in severe preeclampsia as compared to the control group ($p < 0.01$).

Conclusions. Pregnant women with preeclampsia were found to have endothelial damage, which caused its dysfunction.

Emelie C.

SOME ASPECTS OF VESICOVAGINAL FISTULA

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Introduction. Vesicovaginal fistula is a social and surgical problem for surgeons and has been in existence over centuries. It poses a huge portion of gynaecological and obstetrical problems leading to severe complications, morbidity and mortality.

Materials and methods. Retrospective open cohort study of 90 patients aged 15-27 years taken from various hospitals from the year 2011-2015 and were analyzed.

Results of research. 70% of the women were married at the age from 13-16 years. 80% of the women were from rural regions. 85% of women were muslims and 10% were christians. Obstructed labor was the commonest cause of VVF in 85% of women. 46% attempted unsuccessful home delivery. 31% of cases were reported to have complications. 69% of women had successful uncomplicated surgical repair. 25% of women had relapse after surgical repair.

Conclusions. Vesicovaginal fistula still poses a problem in the society occurring mostly amongst younger women illiterate farmers and common in rural regions. Most commonly due to prolonged obstructed labor. Public education and enlightenment, proper antenatal health care and facilities will reduce the incidence rate.

Enemigin E.

EFFECT OF HYPOKINESIA ON THE OCCURANCE OF VULVOVAGINITES OF CANDIDAL ETIOLOGY IN TEENAGE GIRLS

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Introduction. Hypokinesia is a problem of the contemporary society, caused by automation and all-around mechanization of production, large-scale implementation of computer technologies. The muscle activity limitation evokes diverse changes in human. Research of effects of hypokinesia on teenage girls is of the outmost interest because formation of the reproductive system function in them is observed and they are sensitive to various exogenous and endogenous factors. The aim of the work is to research effects of the muscle activity limitation on the level of lymphocytes in blood, as one of indicators of cell-mediated immunity, and on incidence of candidal vulvovaginitis.

Materials and methods. 20 teenage girls with hypokinesia, who were second-year students of a college of computer sciences, and 20 teenage girls, who led an active lifestyle with normal physical activity, were examined. The groups were identical by anamnestic indicators and social status. Absence of focal points of chronic infections in the patients from the study groups was ascertained. All girls had sexual relationships with use of barrier contraception. Episodes of candidal vulvovaginitis were observed 1-3 times annually. A microscopic examination of the vaginal discharge in the setting of clinical manifestation of the disease, and evaluation of the total number of lymphocytes, which constitute the structural base of the human immune system, were carried out.

Results of research. The study results evidence that 2-3 episodes of candidal vulvovaginitis were observed in 18 teenagers with hypokinesia (90%), but the number of lymphocytes in the complete blood count was low – 14.8 ± 0.2 %. In the teenagers with a normal activity regime, three episodes of candidal vulvovaginitis were not detected; one–two were detected in 5 girls (25%); and the level of lymphocytes was within the normal physiological range of 28.1 ± 0.2 %.

Conclusion. Therefore, the muscle activity limitation in the teenagers is followed by reduction in the percentage of lymphocytes, and this constitutes a manifestation of deterioration of the state of the cellular components of the immune system and leads to the increase of the incidence of candidal vulvovaginitis.

Fernandes S., Grahams R.

CRYPTOMENORRHEA DUE TO MULLERIAN AGENESIS AND ITS RELATION TO KIDNEY ABNORMALITIES

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Introduction. Cryptomenorrhoea is also known as hematocolpos. It is a medical disorder where a pubescent girl who has developed secondary sexual characters may or may not be undergoing menstrual like symptoms but inevitably without visible vaginal bleeding, this is mostly due to obstruction in the outflow tract but can also be a result of absence of internal reproductive organs namely; the uterus and fallopian tube. The goal of this study is to prove that the formation of kidney and the mullerian duct occurs simultaneously, therefore any exogenous cause inhibiting the formation of the mullerian duct would also result in congenital kidney anomalies.

Materials and methods. 25 patients in their pubescent age (12-19years) with developed secondary sexual characters but with concerns of absence of visible menstruation reported by their parents/guardians were investigated. Under transabdominal and transvaginal ultrasonography they proved to have an absence of uterus and fallopian tubes and presence of blind vaginal pouch consecutively. To evaluate existence of kidney anomalies urological contrast studies with iodine was performed due to its ability to be naturally excreted through urine.

Results of research. The urological contrast studies with iodine used as contrast with images taken at time of ingestion to 20 minutes after showed presence of solitary

kidneys, horseshoe kidneys, torsion due to elongated ureters, multi cystic dysplastic kidneys and displaced and malrotated kidneys in 87% of patients. These same patients also showed presence of otological abnormalities like deformation in ear function.

Conclusions. On the basis of the background checks ran on these patients, results of their mothers during their gestational period having undergone exposure to teratogens especially during the beginning of their II trimester of pregnancy was obtained, with a handful of them suffering from TORCH infections; hence proving the relation between the defects formed during this embryonic period since the formation of kidney occurs simultaneously with the mullerian duct forthwith.

Gontar E., Khabal A.

THE ROLE OF GENOME MICROSATELLITE INSTABILITY IN PROGRESSION OF POLYPS AND HYPERPLASTIC PROCESSES IN ENDOMETRIUM OF WOMEN WITH INFERTILITY

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Introduction. One of the major challenges of modern science is to find genetic markers of diseases.

Materials and methods. 141 women with endometrial pathology were examined: 61 have endometrial polyps, 80 have non-atypical EH. The presence of genome MSI was studied by polymerase chain reaction in all patients in the endometrial tissue. The diagnosis in all cases was verified morphologically.

Results of research. A pronounced dependence was revealed in the study groups of patients: the same cause-and-effect relationship with the MSI + phenotype is traced in polyps and non-atypical EH in nulliparous women. A statistically significant increase in MSI+ frequency was found in women with infertility and non-atypical EH. Thus, MSI + phenotype frequency in nulliparous women was almost 3 times higher, and the indices were 33.3% and 11.3% respectively than parous patients with non-atypical EH ($p < 0.01$).

Microsatellite instability in patients with polyps is less common than in patients with EH, regardless of the presence of infertility.

Conclusions.

1. Hyperplastic processes and polyps of the endometrium are accompanied by a more frequent progression of genome microsatellite instability in patients with a history of infertility.
2. MSI in patients with endometrial polyps is less common than in patients with non-atypical EH, regardless of the presence of infertility.

Guseinova N., Malikova S., Gulieva P.

ULTRASOUND DIAGNOSIS IN THREATENED PRETERM LABOR IN WOMEN OF YOUNG REPRODUCTIVE AGE

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Introduction. Preterm labor is an actual problem in practical obstetrics due to severe complications, especially for the fetus (newborn). Medico-social significance of preterm labor is determined by high perinatal morbidity and mortality of premature infants. The highest proportion of premature births (55.3%) falls on the gestation period of 34-37 weeks, while at 22-27 weeks of pregnancy it does not exceed 5.7%. Stillbirth in preterm labor is observed by 8-13 times more than in term birth. Threatened preterm labor is characterized by a slight pain in the lower abdomen or in the sacrum. Sometimes presentation is asymptomatic. Palpation identifies increased tone of the uterus and its excitability.

Materials and methods. The study was carried out at the clinical base of the Department of Obstetrics, Gynecology and Pediatric Gynecology, KhNMU, in the municipal healthcare facility “Kharkiv City Maternity Hospital No. 1”. The study involved examination of 50 pregnant women of young reproductive age referred by their obstetrician due to threatened preterm labor in the 2nd-3rd trimester of pregnancy with pain in the abdomen. The women underwent comprehensive clinical, laboratory and instrumental examination.

Results of research. Ultrasound examination showed segmental contractions of the anterior uterine wall in 10 women (20%), posterior uterine wall in 8 women (16%), segmental contractions of both uterine walls (in the form of an hourglass) in 15 women (30%), low fetal head position in 11 women (22%), shortening of the cervix to 23 mm in 6 women (12%). It should be noted that women with segmental contractions of the anterior, posterior and both walls of the uterus were found to have a redistribution of amniotic fluid.

Conclusions. Ultrasound is one of the main and informative diagnostic methods that help to identify signs of threatened preterm labor in women of young reproductive age.

Halashko K.

PREVENTION OF HYPERCOAGULATION IN THE COMPLEX OF TREATMENT OF GESTOSES

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Introduction. Gestoses occupy the first place in the structure of obstetric pathology. The leading pathogenetic link in the development of gestosis is the formation of endothelial dysfunction, which leads to generalized vasospasm, formation of thromboses, microcirculation disorders, development of hypertension, chronic DIC-syndrome, etc. To date, the main method of treatment of gestosis is the appointment of

antihypertensive therapy and timely delivery. However, as practice shows, traditional approaches to the therapy of hypertensive disorders in pregnant women often do not have sufficient effect, which requires their improvement.

In view of the foregoing, it can be assumed that the use of acetylsalicylic acid in the treatment complex of gestosis is a pathogenetically justified means that contributes to the normalization of the rheological properties of the blood. Since, scientific data on this issue are ambiguous; the purpose of our work was to develop a comprehensive algorithm for managing pregnant women with pre-eclampsia, which will improve the effectiveness of their treatment.

Materials and methods. Under our supervision were 23 pregnant women aged 20-30 years, in terms of pregnancy 25-32 weeks, with a diagnosis of pre-eclampsia mild. Pregnant women were divided into 2 clinical groups: 10 pregnant Group I received traditional antihypertensive therapy; 13 pregnant women of the II clinical group were added acetylsalicylic acid in a dose of 100 mg / day to antihypertensive therapy.

Results of research. As a result of the study, a significant improvement in the clinical outcome of pregnancy in patients in clinical group II was found. In the I clinical group, 3 pregnant women had progression of pre-eclampsia, which required their early delivery, in 4 cases, development of placental deficiency with formation of fetal development delay was noted, in 9 pregnant women according to the Doppler study there was a violation of the fetoplacental blood flow of the 2nd degree, in the II clinical group - in 2 pregnant women progression of gestosis was noted, in 2 - there was a development of placental deficiency with the formation of fetal development delay, in 4 pregnant women according to the data Doppler studies noted a violation of fruit-placental blood flow of II degree.

Conclusions. Thus, it can be argued that the use of acetylsalicylic acid in the early stages of gestosis improves the conditions for gestation and a favorable course of labor.

Ivanova T., Korpan T.

VIRILIZATION IN FEMALE NEWBORNS DUE TO LUTEOMA OF PREGNANCY

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Introduction. Endometriosis of the ovaries is one of the important problems in modern gynecology. The incidence of this disorder in women of reproductive age is 15-20%. Despite the large number of clinical and morphological studies devoted to this disease, many of its aspects are still unresolved. Young age of patients, long and progressive course of the disease, severity of clinical manifestations (persistent pain syndrome, uterine bleeding, chronic anemia, infertility, neuroendocrine disorders), persistent impairment of reproductive function, decreased working capacity and quality of life determine both medical and social significance of this common pathology.

Materials and methods. The study was conducted at the clinical base of the Department of Obstetrics, Gynecology and Pediatric Gynecology in the municipal healthcare facility "Kharkiv City Maternity Hospital No. 1". The study involved

examination of 30 women of reproductive age with suspected ovarian endometriosis. The age of the subjects was 21 ± 3.2 years. The study implied the assessment of case histories, ultrasound findings, procedure reports and histopathology reports. All the women underwent diagnostic laparoscopy. Statistical processing was carried out with Statistica 6.0 software, confidence factor was determined using the Student's test.

Results of research. Endometriosis of the ovaries was histologically confirmed in 22 women (73.3%). Bilateral ovarian endometriosis was detected in 9 patients (40.9%), endometriosis of the right ovary was diagnosed in 3 (13.6%) and endometriosis of the left ovary was identified in 10 (45.45) patients. In 8 women (26.6%), endometriosis of the ovaries was not confirmed morphologically. Two of them had tubo-ovarian tumors, one had invasive cancer, three had functional ovarian cysts, and two had morphological signs of salpingo-oophoritis.

Conclusions. Diagnosis of ovarian endometriosis is a complex and multifaceted task. The final diagnosis is based on the results of histological examination. Medical-diagnostic laparoscopy is currently the optimal method for verifying the diagnosis and treatment of endometriosis in women of young reproductive age.

Kiebashvili S., Gnatenko O.

AGE-RELATED DIAGNOSIS AND TREATMENT OF OVARIAN CYSTS

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Introduction. Abdominal pain syndrome is one of the most frequent reasons for consulting a gynecologist. The main pathological conditions, accompanied by similar non-pregnancy symptoms, in girls, adolescent girls and women of young reproductive age, include inflammatory diseases of the internal reproductive organs, tumors and tumor-like formations, ovarian apoplexy, torsion of the appendages of the uterus, ovulatory syndrome, primary dysmenorrhea, some forms of congenital anomalies of reproductive organs, trauma, injuries of vaginal vaults, penetrating injuries of the abdominal cavity, most of which requires emergency gynecological care.

PURPOSE of the study. To improve early diagnosis of the causes of abdominal pain syndrome for timely organ-saving treatment of urgent conditions in girls and young women.

Materials and methods. The study involved examination of 60 girls, adolescent girls and women of young reproductive age. The patients were divided into three groups. Group 1 comprised 11 girls aged 2-12; Group 2 included 19 adolescent girls aged 13-17; Group 3 consisted of 30 women of young reproductive age. All the patients underwent comprehensive clinical, laboratory and instrumental examination with a thorough evaluation of their case histories. Up-to-date ultrasound (US), computer (CT) and magnetic resonance imaging (MRI) tomography were used according to indications.

Results of research. All the patients were admitted with signs of acute abdomen, the cause of which was most often assumed to be an ovarian cyst. However, examination and differential diagnosis verified final diagnosis of the "ovarian cyst" in 37 patients

out of 60 (61.6%). Moreover, in Group 3 it was verified significantly more often than in Groups 1 and 2: 26 (86.6%), 10 (52.6%), 1 (9.1%), respectively ($p < 0.05$). On the contrary, in younger patients of Groups 1 and 2, due to the anatomical features of the internal genitalia and the more mobile lifestyle, the signs of acute abdomen were often caused by the torsion of the uterine appendages, which in ultrasound was visualized as an ovarian cyst. Torsion of the uterine appendages was observed in 23 of 60 patients: in Group 1 in 90.9% of cases, in Group 2 in 47.3%, in Group 3 in 13.3%. In girls and adolescent girls clinical manifestations caused by the torsion of the uterine appendages were non-specific and corresponded to the presentation of acute abdomen triggered by an ovarian cyst.

Conclusions. Minimally invasive surgical procedure, laparoscopy with organ-saving operations should be considered the treatment of choice with regard to upcoming maternity.

Lutsenko M.

ACTUAL PROBLEMS OF PREGNANT WOMEN WITH UTERINE SCAR AFTER CESAREAN SECTION

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Introduction. Due to the increase in the frequency of delivery by cesarean section, the cases of complications at repeated childbirth in women with uterine scar became more frequent. Thus, this is an urgent issue of choosing the right tactics delivery for these women.

The aim of this work was the analysis of birth outcomes in pregnant women with uterine scar, depending on the method of delivery.

Materials and methods. In order to achieve the goal retrospectively 59 women with gestational age 38-40 weeks took part in a research, following which the results of births were analyzed. There were three groups: 1st group included 20 women with a uterine scar, who delivered the babies through the natural way; The 2nd group included 18 pregnant women with a uterine scar, which resulted in a cesarean section; The 3rd control group consisted of 19 patients without a uterine scar who gave birth naturally. Three indicators were assessed: total blood loss during childbirth, the duration and frequency of postpartum complications (hypotonic blood loss).

Results of research. In the 1st group total blood loss was $350 \text{ ml} \pm 38 \text{ ml}$, in the 2nd group it was $467 \text{ ml} \pm 34 \text{ ml}$, in the 3rd control group – $237 \text{ ml} \pm 24 \text{ ml}$. The duration of delivery in the 1st and 3rd groups were about the same and is equal to 7 hours and 10 minutes. The cases of postpartum complications in group 1 was two times lower than in the 2nd group, but 20% higher than in the control group.

Conclusions. Therefore, we can conclude that the best choice of delivery in women with uterine scar are labours through the natural way because with this method there is less blood loss than with repeated surgical intervention, and the lower rates of complications (hypotonic blood loss) in the postpartum period appeared. Moreover, the duration of this method is comparable with childbirth in pregnant women through the natural way without a uterine scar.

Nebe E.

CAUSES, CONSEQUENCES, INCIDENCE AND LEVELS OF INDUCED ABORTION

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Introduction. Abortion in some countries is only done when needed to save a woman's life. Although, some health facilities such as private clinics still provide abortion services on demand and on a fee for service basis.

One of the primary causes of unwanted pregnancies is unintended intercourse and many women then decide to terminate it through abortion. Another leading factor to unwanted pregnancy is low contraceptive use which is use due to lack of sex education, and rural areas where there is poverty and lack of adequate medical facilities most women intend to carry out the abortion themselves or they go to traditional medical practitioners or herbalists, unqualified physicians providing the services in pharmacy and small clinics where in most cases unsafe methods arise resulting to severe health consequences or even death among the adolescents women. The consequences of these clandestine abortions are grave and can be life-threatening, often leading to maternal death. Abortions account for 55 % of maternal deaths in some countries. This induced abortion has increased mortality rate among adolescent women.

THE PURPOSE of this study was to decide the level and consequences of induced abortions in private health care facilities.

Materials and methods. An expository study of patients who were hospitalized for complications resulting from induced abortions between July 15 2015 and December 1, 2016 in 12 health facilities with data obtained from case records.

Results of research. In 1000 of admissions, 80 patients were with the complications after compulsory abortion. The age of the patients was 21-25 years. Almost 35% of these patients died and 75.0% had different complications, such as sepsis 46.0 %, peritonitis 56.0%, severe anemia 46.0%, hemorrhages 41.9% and uterine perforation 28.2% .

Conclusions. Self induced abortion is one of the most reviewed gynecological problems in developing countries which impact on reproductive health. The prevention of unplanned pregnancies by sex education and access to safe and sustainable family planning method is the first aim of the doctor.

Novikova A.

THE STATE OF GYNECOLOGICAL HEALTH OF ADOLESCENTS WITH PSYCHOLOGICAL STRESS AFTER LIVING IN THE WAR ZONE

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Introduction. In the last two years, on a part of the territory of Eastern Ukraine, active combat operations have been carried out; they affected civilians in the region.

According to the UNICEF data, about 60% of children from the war zone got psychological traumas.

Objective. To estimate the state of gynecological health of female adolescents from the families of settlers from the war zone in the eastern regions of Ukraine.

Materials and methods. The study involved 20 female adolescents from the families of settlers into the Kharkiv region from the war zone. The work has been carried out at the Department of Obstetrics, Gynecology and Pediatric Gynecology of Kharkiv National Medical University.

The complex study of teenage girls with gynecological pathology included clinical, gynecological, hormonal and ultrasound examinations and also was examined a psycho-emotional state of adolescents, using adapted to their age techniques.

Results of research. It has been found that out of 20 female adolescents, 7 were diagnosed with abnormal pubertal uterine bleeding, 4 - with amenorrhea, 8 – with ovarian cysts, 1 – with the anomaly of development of the internal reproductive organs. All female adolescents from the area of battle actions were tested for the level of stress. Examination of the female adolescent with the help of testing has registered a higher level of stress in the group with abnormal pubertal uterine bleeding and amenorrhea. This proves that any adverse factor, in this case stress, can trigger abnormal menstrual function in the period of physiological instability of the reproductive system functioning.

Conclusions. The relationship between the hormonal state, simpatoadrenal system in puberty and stress influence has been proved, which confirms the important role of emotional stress in the pathogenesis of menstrual disorders.

Nusra Najila Beevi

ROLE OF PHYTOESTROGENS IN TREATMENT OF ABNORMAL UTERINE BLEEDING

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Introduction. Abnormal uterine bleeding (AUB) - a bleeding arising from violations of neurohumoral regulation and rhythmic production of ovarian hormone in resulting lesions of the hypothalamus-pituitary-ovarian systems, for the exclusion of organic pathology. The lack of effectiveness of using conservative therapies often lead to increasing anemia, significant deterioration of patients who need surgical treatment, increase number of hysterectomy, menstrual disorders and related disorders of endo- and myometrium. Traditional treatment of AUB based on the using of hormonal therapy, which aims to fast bleeding stop, the next correction of hormonal disorders, restore menstrual and reproductive function in women of reproductive age. Determine the effectiveness of phytoestrogen therapy in the treatment of abnormal uterine bleeding in women of reproductive age.

Materials and Methods. To achieve this goal, we have studied the effect of phytoestrogen therapy in patients with abnormal uterine bleeding. Complaints, menstrual function, clinical and laboratory methods, tests of functional diagnostics,

hormonal, histological and ultrasound examinations were considered for diagnostic. The study included 39 women with AUB aged 25-40 years. 20 patients were treated with hormonal therapy (comperative group) and 19 women used combined treatment that included phytoestrogens (main group). The control group consisted of 11 healthy women. All women complained on general weakness, dizziness, sleep disturbances, fatigue, menstrual disorders.

Results of research. As shown by our research menstrual function was noted in 18 (90%) patients of the comparative group, with 16 women (84.2%) main group. A positive trend was observed in cases of using phytoestrogens, which was confirmed by clinical and laboratory, hormonal, ultrasound and histological studies. All patients of the main group significantly improved overall health: complaints disappeared, menstrual blood loss decreased. One of the (5.2%) patients from the comparison group were needed discontinuation of hormonal therapy due to side effects. Ultrasound examination was performed in all patients who used phytoestrogens for 6-9 months and endometrial pathology was not found.

Conclusions. Thus, the results: phytoestrogens prevent this bleeding due to their estrogenic effect on the endometrium .adequate diagnostic tests and the timely treatment with phytoestrogens will prevent the development of uterine bleeding with severe anemia.

Onwujekwe U.

ADVANTAGES OF DELAYED CLAMPING OF THE UMBILICAL CORD IN COMPARISON WITH TIMELY CLAMPING

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Introduction. According to the World Health Organization (WHO), delayed clamping of the umbilical cord is defined as a cord clamp no earlier than 1 minute after the birth of the fetus, and a timely cord clamp is defined as a cord clamp as soon as it stops pulsating, but no later than 1 minute after delivery. Cochrane meta-analysis determined deferred constriction as a delay of 30 seconds or more after birth. In a systematic review of Van Rheenen and Brabin, the delayed anchoring of the cord was defined as waiting until the umbilical cord stopped pulsating (the average setting time was 30.5 seconds). The aim of this abstract is to compare the advantages and disadvantages of delayed clamping of the umbilical cord compared with the early one.

Materials and methods.Newborns were divided into 2 groups. The first group consisted of 25 patients, in whom the umbilical cord was clamped after the pulsation ended. The second group consisted of 50 patients who underwent an early compression of the umbilical cord.

Results of research. The data obtained during the study show that in newborns, delayed clamping of the umbilical cord improves the optimal transfusion within 1-3 minutes. This technique increases the level of hemoglobin and hematocrit at birth and increases iron stores in the first few months of life. In neonates, delayed clamping of the umbilical cord was associated with significant benefits, including improved transient circulation, improved red blood cell volume, reduced need for blood

transfusions, and decreased necrotizing enterocolitis (2%) and intraventricular hemorrhage with hypoxic central nervous system damage (2%).

In 26% of cases, abnormal neonatal jaundice was noted in neonates whose cords were clamped after 1 minute, in 30% polycythaemia (not requiring treatment), in 34% transient tachypnea (possibly due to delayed absorption of fluid in the lungs caused by an increase in blood volume to delayed cord clamp). There was no increase in bleeding in the mothers.

In the second group, anemia was noted in 39% of newborns, pathological neonatal jaundice in 35%, transient tachypnea in 20%, necrotizing enterocolitis of hypoxic genesis in 8%, hypoxic lesion of the central nervous system (4%).

Conclusions. Analyzing the results obtained, it can be concluded that the delayed clamping of the cord has more advantages for newborns than the early clamping of the umbilical cord. The increase in the level of hemoglobin and iron in the blood of the newborn helps in the prevention of hypoxic complications and contributes to the further favorable development of the newborn.

Opeyemi Oluwafunmilayo O.

THE PATTERN OF SICKLE CELL DISEASE IN PREGNANCY IN LAGOS, NIGERIA

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Introduction. Sickle cell disease is the most common inherited disorder worldwide with varying clinical severity and potentially serious complications. Pregnancy in sickle cell disease is at very high risk. Many reports have documented a considerable maternal risk of morbidity and mortality and high perinatal adverse outcomes. Women with SCD have an increased risk of preeclampsia and maternal death, stillbirths, preterm deliveries, and small-for-gestational-age newborn. In Nigeria, about 45,000-90,000 infants with SCD are born annually compared to only 1000 infants born in the USA.

Materials and methods. This was a retrospective descriptive study of medical case files of all booked pregnant mothers who attended the antenatal clinic of the University of Port Harcourt Teaching Hospital, Nigeria from June 2016 to September 2016. The parameters extracted from the folders included: The following information was recorded for each woman: age, gravidity (number of pregnancies), and parity (number of birth with a gestational age of 24 weeks or more). Obstetric outcomes measured were gestational age at delivery, mode of delivery, preterm delivery (defined as a delivery < 37 weeks), premature rupture of membrane (PROM), antepartum hemorrhage (APH), gestational diabetes, intrauterine growth restriction (IUGR), cephalopelvic disproportion (CPD), pregnancy-induced hypertension (PIH), placenta previa, intrauterine fetal death (IUFD), intrapartum stillbirth, preeclampsia, and eclampsia.

Results of research. Out of 112 women, 57 (50.89%) had sickle cell disease and 55 (40.10%) had sickle cell trait. The mean gravidity and parity in the latter group

(5.05 ± 3.51 and 3.2 ± 2.74 respectively) was more than double in the former group (2.89 ± 1.36 and 1.66 ± 0.96 respectively). There were significant differences in antenatal complications. In the disease group, anaemia was in 55 (96.5%) cases compared to 35 (63.6%) in the trait group. Significant number of women in the first group ($n=41$; 71.9%) experienced painful crisis in pregnancy compared to 4 (7.27 %) in the second group. Mean haemoglobin in the disease group was 8.35g/dl, while it was 9.96 g/dl in the other ($p < 0.01$). The requirement of blood transfusion was higher in the former, 28 (38.6%) than in the latter 3 (5.54%). Frequency of pre-term delivery was only slightly higher in the disease group, 14 (28.57%) than in the trait women, 13(23.63%). The mean birth weight of babies of women with the disease and the trait was 2380 and 2480 grams

Conclusions. There is a high prevalence of SCD among pregnant women in this region. Late antenatal booking, anemia, and poor education are the predictive markers of poor pregnancy outcome in this region. We believe that the findings would be useful for designing interventions to reduce the obstetric burden of sickle cell disease.

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ASSESSMENT OF ACUTE ABDOMEN RISK IN ADOLESCENT AND YOUNG REPRODUCTIVE AGE

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Introduction. Recently, more and more reports have appeared in the literature on the increase in the incidence of benign tumors and tumor-like ovarian formations in children, adolescents and young women. Improvement of the methods of ultrasound diagnosis determines early detection of cystic formations in fetuses. The proportion of tumors and tumor-like formations of the ovaries ranges from 1.5 to 4.8% among gynecological disorders in children, adolescents and young women, and at a young reproductive age, this pathology often causes impairment of reproductive function (T.F. Tatarchuk, 2012, I.A. Tuchkina et al., 2015).

Materials and methods. The study was carried out at the clinical base of the Department of Obstetrics, Gynecology and Pediatric Gynecology of KhNMU. The study involved examination of 130 patients aged 11-32 (70 adolescent girls aged 11-17 years and 60 women aged 18-32), which was the main group. The patients underwent comprehensive examination and were treated for acute abdominal pain syndrome in in-patients settings. Control group included 45 healthy age-mates (25 adolescent girls and 20 women).

Results of research. Examination verified the diagnosis – ovarian cyst. It showed that 53 adolescents and 22 women had retention formations of the ovaries, which caused abdominal pain syndrome. These patients were treated conservatively. Operative treatment by laparoscopy was rendered to 17 adolescents and 38 women with ovarian cysts exceeding 5-6 cm in diameter and with the signs of acute abdomen.

Assessment of the course of pregnancy and childbirth in mothers of our patients showed that in the main group both adolescents and women of young reproductive age

were more frequently born by mothers with serious obstetric and perinatal abnormalities and complications. These abnormalities included threatened abortion, obstetric hemorrhages, low and excessive weight of newborns, fetal distress. Patients of the main group had a high infectious index, the number of patients who frequently developed respiratory diseases and the incidence of extragenital pathology was 2 times higher than in the control group. Past history of 60% of patients in the main group included inflammatory diseases of the female reproductive system: synechia of vulva (in childhood), vulvovaginitis, bartholinitis, salpingo-ophoritis.

On physical examination all the patients were found to have signs of acute abdomen, tenderness in the area of appendages or tumor-like formations. Echosonography showed effusion in the abdominal cavity up to 100 ml or a formation with a diameter of more than 5-5.5 cm.

Conclusions. Pathological course of pregnancy and childbirth in mothers, complicated premorbid background and presence of inflammatory diseases of the female reproductive system in past history can be attributed to the risk factors for the development of tumors and tumor-like formations of the ovaries in adolescents and young women that trigger acute abdomen. The presence and extent of effusion in the abdominal cavity and the size of tumor-like formation are decisive for choosing the method of treatment in “acute abdomen”.

Pylypenko N., Romanova N.

**MAYER-ROKITANSKY-KUSTER-HAUSER SYNDROME
(A CLINICAL CASE)**

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Introduction. Congenital aplasia of the uterus and vagina occurs from 1 in 5000 to 1 in 20000 among newborn girls. The causes of Rokitansky-Kuster syndrome are not fully understood. Disturbance of embryogenesis plays a crucial role, namely, the development of the Müllerian ducts, which are the precursors of female genital organs. This occurs under the impact of teratogenic factors, defects in the formation of the mesenchyme. Episodes of the family Rokitansky-Kuster syndrome are inherited by autosomal dominant type of transmission with incomplete penetrance and expressivity of the gene. In gynecology Rokitansky-Kuster syndrome is diagnosed in 20% of women with primary amenorrhea.

Traditional surgical method for the treatment of Rokitansky-Kuster syndrome implies surgical formation of neovagina - colpoptosis from the pelvic peritoneum or sigmoid colon. Bouginage and dilatation of rudiment vagina (colpelongation) is possible only if its length is 2-4 cm. The aim of the interventions is to eliminate the obstacle to normal sexual activity. In most cases reconstructive operation involves laparoscopic colpoptosis with a rotation of the sigmoid colon fragment on its own mesentery. Artificial vagina, formed from intestinal tissues, does not require additional moisturizing, which positively affects the quality of sexual life in women with Rokitansky-Kuster syndrome. After operation the tissues of the formed vagina undergo

certain morphofunctional changes, expressed in sclerosis, atrophy and dysplasia of the intestinal mucosa. To prevent sclerosis and stenosis of the lumen of the artificial vagina, it is necessary to maintain regular sexual life or to conduct occasional bouginage. Laparoscopic colpopoiesis in Rokitansky-Kuster syndrome has advantages over open intervention, allowing to achieve better aesthetic results. If it is not possible to perform colpopoiesis from the sigmoid colon (insufficient length of the mesentery), pelvic peritoneum, transverse-colon or small intestine are used for neovaginal plastic surgery.

Materials and methods. A case history of a patient with a Rokitansky-Kuster syndrome was studied.

Results of research. Clinical case. A 16-year-old patient A. was admitted to the Regional Children's Clinical Hospital No.1 of the Department of Obstetrics, Gynecology and Children's Gynecology on 18.11.2016 with complaints on the absence of menstruation. She underwent comprehensive clinical and laboratory examination: CT findings: CT signs of a congenital abnormality - aplasia of the uterus and vagina. Ultrasound of pelvic organs: band-shaped uterus, size 20 to 10 mm, the right ovary - 32 Ч 26 mm, the left ovary – 30 Ч 24 mm, of usual structure. Gynecological status: vaginal probing 10-12 mm. Hormonal profile: estradiol: 89.9 pg/ml, anti-Mullerian hormone: 3.82 ng/ml. Coagulogram, lipid spectrum and hepatic tests within the age limit, serum iron – 19.8 μmol/l. Clinical diagnosis: Mayer-Rokitansky-Kuster-Hauser syndrome. The patient was recommended to undergo elective surgical treatment. The operation of vaginal grafting with a segment of the sigmoid colon was performed after preoperative preparation, on 30th November, 2016. The postoperative period was uneventful.

Conclusions. It should be understood that the Mayer-Rokitansky-Kuster-Hauser syndrome is a rare and complex defect. The treatment is multi-level and long-lasting.

Pylypenko N.

INCREASING FACTORS OF COMPETITIVENESS OF PUBLIC STATE MATERNITY HOSPITALS IN MODERN CONDITIONS

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Introduction. The aim of the study was to determine the factors of competitiveness (FC) of the state maternity hospitals (SMH). Our study is based on the analysis of existing approaches a theoretical and methodological support of the process management of SMH in a competitive conditions.

Materials and methods. The method of scientific analysis and scientific abstraction were used. Literature data were analyzed, including 12 domestic and 10 foreign sources. We used resources PubMed, Medstat.ua and Google.

Results of research. Management of competitiveness of the SMH is the management and economic departments of enterprises or organizations is purposeful, organize the impact on the components of FK SMH, carried out with the aim of increasing competitiveness to the desired target level. Feasibility of FC include quality, cost of

operation or use of products or services, the cost of production. Commercial FC : market conditions; services; advertising; image. Legal FC reflect the requirements of technical and ecological safety of the use of products, patent legal requirements. The second group of FC are commercial factors. Important for competitiveness is the level of competition from other healthcare institutions. One of the main FC is the cost of services of health institutions. The third group of FC - regulatory FC –identifies regulatory requirements and discloses the activities of healthcare institutions with current legislation. Another classification criterion is the division of FC establishment protection for foreign and domestic. External – the factors of production;- activity of competitors;- demand factors;- the presence of related and supporting industries in the economy of Ukraine;- governmental actions;- the degree of privatization of enterprises in the industry;- random events. Medical FC : assortment and range of services offered by the institution of health care; quality of medical services of the healthcare institution; the technical equipment of the healthcare facilities; the level of qualification of medical workers of health institutions. Commercial FC include: market conditions for medical services; cost of services of the healthcare institution; the image of the institution of health. To external FC related resource markets, competitors, demand, Government actions. Domestic FC is a medical, cost-effectiveness and efficiency of management.

Conclusions. To enhance the competitiveness of SMH in modern conditions it is necessary: to take measures for : improving the quality of medical services of the SMH; improvement of technical equipment of SMH; raising the level of qualification of medical workers of the SMH; expansion of the range of medical services; increase accessibility and enhance the image of medical institutions and medical personnel.

Sesay-Tlahyoni A.

ANOMALIES OF FEMALE SEXUAL ORGANS AND THEIR COMMUNICATION WITH ANOMALIES OF THE URINARY SYSTEM

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Introduction. Anomalies in the development of female genital organs are very rare without a concomitant anomaly of the urinary system, since the formation and development of the organs of these two systems occurs in close interrelation. The causes of congenital malformations are not only genetic disorders, but also teratogenic factors can alter the genetic material of the embryo.

Aim: To analyze the anomalies of development of female genital organs, their relationship with urinary disorders, and types of treatment.

Materials and methods. This study included 23 cases of women aged 14 to 38 years with complaints of primary amenorrhea, infertility without the use of contraceptives, etc. Ultrasound (ultrasound), X-ray contrast, magnetic resonance imaging (MRI) or computed tomography (CT) diagnostic methods were performed to identify abnormalities of female genitalia and other complications.

Results of research. With abnormalities of the ovaries revealed: 1 patient with a complete absence of ovaries, 5 patients - ovarian dysgenesis with Turner syndrome.

With anomalies of the fallopian tubes: 1 patient with unilateral absence of the fallopian tube - due to hemorrhage into the cavity and its reabsorption as a result of the asymptomatic overturning of the fallopian tube in adulthood, at pediatric age, or even during intrauterine life.

With anomalies of the development of the uterus: 4 patients with no uterus or vagina - Rokitansky-Küstner-Hauser syndrome (RKH syndrome) in combination with agenesis of one kidney and ureter, 5 patients - with unilateral development - a unicorn uterus in combination with ureteric atresia.

Some of the vaginal defects: 6 patients - unperforated hymen, 1 patient - atresia of the vagina due to transverse vaginal septum, which can be one or more.

Conclusions. Treatment of all malformations, as a rule, is surgery. If the vagina is invaded, and if plastic repairing of altered tissues is not possible, an artificial vagina is created from the skin flap, sections of the thin and sigmoid colon. The presence of partitions in the uterus creates the need for their excision, in cases of more serious malformations, an individual approach is required. Defects in the ovaries, in turn, require prolonged or lifelong application of hormone therapy.

In the detection of urogenital disorders in women, there are two basic principles. Rough malformations of the uterus and tubes are usually associated with abnormalities of the kidney and ureter. Development of gonads is separated from development of ducts. Therefore, functioning ovaries are usually present when the uterus and vagina are absent.

Shaikh A.

ETHICAL ISSUES AND SUPPORT FOR INFERTILITY TREATMENT BY IVF

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Introduction. IVF known as In vitro fertilization, a process by which an egg is fertilized with sperm, creating a very controlled environment outside the body, mostly in vitro. Infertility treatment by IVF is an area where religious, cultural, social and psychological conflicts continue, making this qualitative study relevant.

The aim of the study is to discuss and study the ethical aspects, conflicts and concepts for IVF.

Materials and methods. In order to conduct the analysis, a qualitative study of information based from literatures, current policies and legislations was reviewed. These were mainly based on the concept of IVF and ethical problems associated with it. The literatures studied mainly focused on frequently occurring conflicts within the sectors of religion, financial affects, medical morality, scientific progression, gender and sexuality relevance and vulnerability exploitation.

Results of research. The finding from several literatures showed a great rise in recent years for the use of this treatment, which is usually commercial and is intended for couples who have a problem with fertilization, not allowing them to have children. Although, speaking about the latter, recently there has been an increase in the number

of less stereotyped individuals using such facilities, such as single people and homosexual couples.

Many criticisms stem from the argument that IVF is contrary to the natural concept, for example, the use of IVF treatment by women post menopause. Couples may also face objections from groups opposing the birth of children from unmarried or same-sex couples. Objections to this may be from secular circles who claim that a new-born child needs both a mother and father for his or her healthy development. IVF is not only considered evil for the religious side of society, but it is mainly condemned for the financial weight of governments, as well as individuals who pay privately. Therefore, the process is often labelled as "exploitation of vulnerable individuals."

But on the other hand of IVF you have consumers of this service, for which understanding and concept are completely different. Here the psychological fact has to be understood that for many people, the path of infertility and unsuccessful attempts of conception and the birth of a child can be one that is extremely difficult to go through, along with the mental and physical trauma of infertility, social trauma also hinders the weight layer and can also determine the overall level of human well-being.

Many are experiencing severe depression, cultural and social discrimination giving a sense of being out casted due to infertility, and therefore for such people, IVF can mean the process by which their acceptance in society can occur as well as being the defining factor in having a successful relationship with their partners.

Individuals can also argue that regardless of heterosexuality, homosexuality, stereotyped couples or an individual using an egg donor, their life should be led by their choices and they should be able to decide as to when, where, with whom and how they choose to have children regardless of it being by natural conception or through IVF.

For doctors and scientists IVF is an ideal example of progressive medicine, thanks to which life is improved or created. But because of the financial costs associated with the use of such an improved technology, it is economically impossible to offer it for free or at affordable prices, and for its continued provision, financial support from consumers is mandatory.

Conclusions. Considering all the scenarios, this discussion seems like an endless argument in favour of the correct ethical status. But the question remains. What is the ethical correct answer? Is this the "exploitation of vulnerable people" or a means to achieve human desires? Is this the greatest scientific development in the field of medicine, or do physicians play "God"?

Skopenko A., Krasun O.

DIAGNOSIS OF UTERINE BLEEDING AT PUBERTY

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Introduction. Uterine bleeding at puberty (UBP) is one of the most common reproductive disorders during sexual development. The incidence of UBP among gynecological diseases varies from 10 to 37.5%, i.e. it occurs in every second girl with

impaired menstrual function. This problem remains topical among diseases in adolescents and is currently attracting the attention not only of pediatric gynecologists, but also doctors of other specialties. The issues of treatment and rehabilitation of patients with uterine bleeding are important, since relapses of the disease greatly worsen the prognosis for reproductive function.

Purpose of the study. To determine the diagnostic signs of uterine bleeding at puberty.

Materials and methods. The study involved the assessment of 50 sources of scientific literature concerning the study of the diagnosis of uterine bleeding at puberty.

Results of research. Absence of structural pathology of the endometrium and confirmation of the anovulatory menstrual cycle during the period of uterine bleeding development was shown to be a pathognomonic sign of UBP. The level of progesterone on the 21-25th day of the menstrual cycle is less than 9.5 nmol/l. Important criteria for evaluation are monophasic basal temperature and absence of preovulatory follicle according to echography. It is also necessary to conduct differential diagnosis of UBP, since uterine bleeding at puberty can be due to a number of diseases associated primarily with bleeding secondary to the diseases of coagulating and anticoagulating blood systems. Patients should consult such specialists as endocrinologist, hematologist, phthisiatrist, pediatrician, neuropathologist and ophthalmologist.

Conclusions. Timely diagnosis of abnormal uterine bleeding at puberty is the key to successful preservation of the reproductive potential in this category of patients.

Sultan M.

INFLUENCE OF DURATION OF HYPOKINESIA EFFECT ON THE FEMALE MENSTRUAL CYCLE

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Introduction. The lifestyle of a modern woman is exposed to various unfavorable factors: stresses, supercooling, restricted volume of muscular activity, irregular and unbalanced diet. Their effect changes all female organism and specifically sexual system that results in reducing of reproductive potential. Hypokinesia, based on the restriction of a volume of muscular activity, negatively affects the human body state, causing disturbances of activity of muscular system, cardiovascular and other organs and systems.

Materials and methods. The study included 90 women at the age of 25-35 years old, having been divided into three equal in number clinical groups – two basic (first and second) and control one. Groups were identical in obstetrical-gynecologic anamnesis: they had no inflammatory processes or operations of organs of small pelvis, there were no organic pathologies of uterus and appendages, all women had one-two labors through natural parturient canals with satisfactory course of a postnatal period. Social conditions of all women were good, a diet – sufficient and balanced. Nobody went in for sport or did any physical exercises in their free time. The effect of hypokinesia on women of both basic groups occurs during 7-8 hours in work days, in the first group

lasted five years, and in second – ten. The control group during working hours had an ordinary motor activity.

Results of research. Group during working hours had an ordinary motor activity. It was established that in the first basic group the disturbance of a menstrual cycle observed in 20 women (66.7 %), and in the second basic group – in 28 (93.3 %). In the control group the menstrual cycle has been disturbed in five women (16.6 %). Among the disturbances of a menstrual cycle originating under the effect of hypokinesia, there was defined dysmenorrhea, presented in the first basic group in 18 women (60 %), and in second – in 25 (83.3 %). In the control group disturbances of a menstrual cycle were manifested by only moderately expressed painful syndrome during menses. Restriction of a volume of muscular activity has affected a regularity of a menstrual cycle, having stipulated delay of menstruation from one week to one and a half month in 10 women (33.3 %) of the first basic group and in 15 (50 %) – second one. Under the effect of hypokinesia the volume of menstruation in the form of hypomenstrual syndrome was also changed (5cases, 16.6 % – in the first basic group and 10 cases, 3.3 % – in second). Menorrhagia in observable women was noted in eight cases: four (13.3 %) in each group.

Conclusions. 1. The presented analysis has shown that the hypokinesia unfavorably affects a menstrual cycle, causing its disturbances and degree of manifestation depends on duration of effect of this factor.

2. The main manifestation of menstrual cycle pathology is dysmenorrhea, however other disturbances – an irregularity of menses and changes of quantity of a blood loss are added later.

3. Thus, restriction of a volume of muscular activity is the unfavorable factor essentially changing a menstrual cycle and demanding the search of correction ways.

Sultan M.

NEGATIVE EFFECTS OF HYPERESTROGENISM ON THE REPRODUCTIVE SYSTEM OF WOMEN

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Introduction. Endometriosis is extremely common in developed countries. Obesity is a major health concern and may cause hyperestrogenism. Hormonal replacement, particularly unopposed estrogens after hysterectomy, is becoming popular. Because endometriosis is ectopic endometrium, hyperestrogenism (either endogenous or exogenous) may cause hyperplasia or transformation into cancer.

Materials and methods. Patients who had tumors from endometriosis diagnosed from 2006 to 2017 were analyzed retrospectively. Each patient was matched with two control patients (endometriosis without cancer) treated during the same study interval. Clinical and epidemiologic variables were compared to identify risk factors for the development of cancer.

Results of research. We identified 31 patients with cancer developing from endometriosis. Fifteen women were obese, 9 had a history of endometriosis, and 9 were

taking unopposed estrogen. Endometrioid adenocarcinoma was the most common histologic type (16 patients). When the patients with cancer were compared with controls, no significantly higher risk for the development of cancer was found with prolonged use of unopposed estrogens or with higher body mass index, but a trend was observed. When obesity and use of unopposed estrogens were considered together, the difference was statistically significant.

Conclusions. Hyperestrogenism, either endogenous or exogenous, is a significant risk factor for the development of cancer from endometriosis. The prevalences of endometriosis, obesity, and use of hormonal replacement therapy in women in developed countries are increasing, and this trend justifies the assumption that cancer developing in endometriosis might become more common in the future.

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INTERCONNECTION OF INHIBIN B LEVEL AND HYPERANDROGENISM DURING THE POLYCYSTIC OVARIES SYNDROME

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Introduction. Polycystic ovaries syndrome (POS) – is polyendocrine pathology, accompanied with the disorder of the ovaries' function (anovulation, increase of androgens' secretion), pancreas (hyperinsulinemia), adrenal glands, pituitary gland and hypothalamus. Leading clinical symptoms during POS are menstrual disorders, infertility, different manifestations of hyperandrogenism (hirsutism, acne).

Inhibin B is biologically active glycoprotein, which is synthesized in the follicles of the ovaries and is a marker of the women's reproductive function. Inasmuch as during the POS the disorder of reproductive function takes place, we can think about inhibin B role on this process and its interconnection with the level of androgens.

Objective: to ascertain the influence of hyperandrogenism on the level of inhibin B within patients with POS.

Materials and methods. 25 patients with POS (experimental group) and 10 somatically healthy women took a part in the investigation. All the women were of the same age (20 – 30 years). The life anamnesis, somatic, obstetric and gynecological histories analysis were made. POS was diagnosed according to hyperandrogenism, ovulatory dysfunction and data of ultrasound examination.

The hormonal state of all patients was examined (Follicle-stimulating hormone (FSH), estradiol (E), free testosterone (T) and inhibin B (IB) on 2-7 days of menstrual cycle.

Results of research. During the hormonal examination all women had a normal level of the FSH ($1,9 \pm 0,3$ mIU/ml at the rate 1,3-9,9 mIU/ml, $p < 0,05$), increase of the E level ($184,4 \pm 10,2$ pg/ml at the rate 12,5-166,0 pg/ml, $p < 0,05$) and of the T level ($10,1 \pm 12,2$ pg/ml at the rate 0,5 – 4,1 pg/ml, $p < 0,05$). This data correlated with increase of the IB level ($112,8 \pm 12,7$ 2 pg/ml at the rate 30,0-90,0 pg/ml, $p < 0,05$)

There were no abnormalities detected during such hormonal examination in the control group.

Conclusions. Based on the received data, we can consider that hyperandrogenism is one of the factors, that affects on the increase of the inhibin B level during POS, that results in the disorder of reproductive function. During the diagnosing of POS it's necessary to take into account the level of inhibin B in the serum, as one of the phase of the pathogenic chain of the development of the POS.



PEDIATRICS AND MEDICAL GENETICS



**INTERNATIONAL SCIENTIFIC
INTERDISCIPLINARY
CONGRESS**



Ahmed Ahmed Mosad Gaballa

ASPECTS OF CHRONIC GRANULOMATOUS DISORDER

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Introduction. Chronic granulomatous disorder is a rare, inherited disorder of the immune system. The basic defect lies in phagocytic cells (neutrophils and monocytes), which fail to effectively destroy invading bacteria and fungi.

Materials and methods. This abstract is presented the clinical case of a boy H, aged 15 years, who was born from the 1-st pregnancy, the weight at the birth was 3300 g. Patient was vaccinated BCG in the hospital. Decreased levels of phagocytic activity (nitroblue tetrazolium test (spontaneous) -3% (normal 9,34-0,4%), nitroblue tetrazolium test (stimulated) -12% (normal 40-80%) in immunological blood test was indicated at the age of 4 years. Primary immunodeficiency, defect of phagocytosis, chronic granulomatous disorder were diagnosed in the regional center of pediatric immunology in Kharkiv. Diagnosis: Primary immunodeficiency. Defect of phagocytosis. Chronic granulomatous disorder. Familial anamnesis of the patient was burdened: defect of phagocytosis was diagnosed in 2 younger brothers of the patient (from another biological father).

Results of research: This clinical case should be considered as a defect of phagocytosis, linked to the X-chromosome. At the age of 1-14 years boy were abscessed furuncle of the parotid region, otitis, laryngitis, streptoderma, abscess of submandibular lymphadenitis. The tuberculosis of lymph nodes was diagnosed at a biopsy and histological investigation. The treatment with antituberculous drugs was conducted. At the age 14 years boy had lungs aspergillosis. Anti-bacterial prophylaxis was conducted using on Co-trimoxazole, anti-fungal prophylaxis - intraconazole.

Conclusions. Medical and social problems of chronic granulomatous disorder: the appearance of mutated and drug-resistant forms of mycobacterium tuberculosis and aspergillus in patients with chronic granulomatous disorder.

Aleksandrova K., Kozka I.

STRUCTURAL FEATURES OF THE RESPIRATORY SYSTEM OF YOUNG CHILDREN

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Introduction. Traheopulmonary system begins to be formed from the 3-4th week of embryonic development and continues shaping up to the age of 7; this is the age of final differentiation of the bronchial - pulmonary system. At different age stages human respiratory system has the histological, morphological and functional differences, therefore today the study of these features is relevant, since the diseases and respiratory pathology of children, especially up to the age of 5, make up 38% of all diseases.

Materials and methods. Collecting empirical data from control group consisting of 46 children.

Results of research. The study indicates that the most likely causes of disordered nasal breathing of young children are the lack of a lower nasal passage, narrow choanae and narrow nasal passages. Tongue, which occupies the entire oral cavity and suppresses the epiglottis, makes mouth breathing impossible.

The lower nasal passage is formed only at the age of four; the lower nasal passage is formed, and the frontal sinus is formed at the age of two. This explains the rarity of such diseases as sinusitis, frontal sinusitis and ethmoiditis among young children.

Pathological process may spread from the nasopharynx through the wide eustachian tube to the middle ear, causing the development of otitis. One more weak spot for the infection is the mucous membrane of eyes, to which the inflammation from the nasal cavity can pass through the wide nasolacrimal canal.

The poor development of the Waldeyer's tonsillar ring and vertical position of the pharynx of the newborn is the reason why the pharyngeal tonsils become visible only by the first year of life.

The high voice of children is caused by the morphology of the vocal folds, which are quite narrow, compared to an adults', the glottis and vocal cords are short. Hoarseness after screaming is marked by fatigue of the muscles of the vocal cords, caused by increased neuro - muscular excitability.

The trachea is funnel-shaped at birth, cartilages are soft and elastic, as a result, one-sided displacement of the trachea is not uncommon during pathological processes (tumor, exudate).

The right bronchus is a prolongation of the trachea, it is wider and shorter than the left one, this causes frequent presence of foreign bodies in it at an early age. Localization of pathological processes such as pneumonia is often observed in certain segments (6, 2, 10, 4, 5-m) and explained by the features of oxygenation, aeration and bronchial drainage function.

Chirva A.

HEALTH LEVEL AND PUPILS' ADAPTATION TO THE PHYSICAL EXERTION

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Introduction. Nowadays among there is a high rate of decreasing of somatic health and physical development among children. These negative tendencies are commonly explained by social and economical factors, psycho-emotional overloads and well-known hypodynamia. Children are mostly like suffer from increasing amount of various diseases, especially from cardiovascular system illnesses. Exactly this assumes more detailed supervision on school children health condition.

Materials and methods. In this research there were involved 58 pupils 11-12 years old. Ruffier test was conducted i.e. involving physical activity and triple measurement of heart rate (HR) – before exercising and immediately after it, and in the last 15

seconds of the first minute after exercising. The study was conducted according to the standards of the MOH Ukraine number 518/674 as of 20.07.2009. Judging from the data it was defined that: 1) Ruffier index (IR); 2) Robinson index (IR) – indicates the reserve of the cardiovascular system that characterizes the work of systolic heart; 3) adaptive potential (AP) - indicator of the adaptability of the organism to various exogenous and endogenous factors.

Results of research. After conducting the experiment there was found out that 17.24% of students –have high index of Ruffier test (RI<3); 31.03% of students are with good level (RI = 4.6); 31.03% of students got an average level (PR = 7.9); 18.96% of students are observed with bad level (PR = 10-14); 1.72% of pupils are with low level (> 15). Regarding the Robinson index 10.34% of pupils have an excellent rate (IR <69); 27.58% of students scored good (IP = 70-84); 20.68% of students got average (IR = 85-94); 22.41% of students are poor (IP = 95-110); 18.96% of students are appeared to be very bad (IR> 111). When processing the adaptive capacity index, it was found out that 34 pupils had satisfactory condition of adaptive-compensatory mechanisms in the body, and 24 other are likely to feel stress adaptive-compensatory mechanisms.

Conclusions. Thus, it is revealed that the most informative indicator for assessing pupils cardiovascular system is Ruffier index, talking about an adequate assessment of the cardiovascular system of school children. Its use will allow to identify risk among students with the problems of cardiovascular system in advance. Today almost every fourth student (41.3%) has problems with decreased functional reserves of cardiovascular system and stresses of adaptive-compensatory mechanisms. That is what needs attention of medical and teaching staff, parents should long to normalize and organize children' daily regime, their leisure and lifestyle.

Drobova N., Yanovska K.

THE CLINICAL CASE OF THE CHILD WITH CYSTIC FIBROSIS AND MULTIPLE ORGAN FAILURE SYNDROME DEVELOPMENT

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Introduction. Cystic fibrosis (CF) is an autosomal recessive disease caused by mutations in the gene encoding the cystic fibrosis transmembrane conductance regulator (CFTR). There are over 2000 disease-causing mutations in the CFTR gene. Nowadays, delF508 is the most common mutation of CFTR gene. Purpose. To analyze the life history of the child with CF and severe delF508 CFTR mutation.

Materials and methods. Clinical and paraclinical examinations of patient with cystic fibrosis according to the Order of MOH of Ukraine from 19.03.2007 № 128 “On approval of the protocol of medical care for people with cystic fibrosis”, Order of MOH of Ukraine from 29.01.2013 № 59 “On approval of unified clinical protocols of medical care for children with diseases of the digestive system”. The study of the patient's medical documentation.

Results of research. A child had CF diagnosed at 8 month with a positive sweat chloride test and clinical sings. The child received the replacement enzyme therapy

(“Kreon”), ursodesoxycholic acid, multivitamins as a basal therapy. Antibiotic therapy was prescribed only with bronchopulmonary exacerbation. Genotyping was done at 6 years old. The patient was found to have one copy of delF508 while the second mutation remained unknown. From the age of 8 the patient had chronically colonization of airways by *Staphylococcus aureus* and *Pseudomonas aeruginosa*. The patient received treatment with the antipseudomonal antibiotics (tobramycin, kolistyn) by short courses because of the expensive of these drugs. At the age of 8 the biliary cirrhosis, portal hypertension and splenomegaly were found during routine examination. At 9 years old was diagnosed type 1 diabetes mellitus. The child's condition progressively worsened. From 2014 year onwards the child received treatment in the Kharkiv Regional Clinical Children's Hospital №1. During the last hospitalization the patient spent in the hospital 85 days, 52 of them - in the department of anesthesiology and intensive care. Despite all the measures according to the treatment protocols, the child's condition worsened due to the syndrome of multiple organ failure that caused death in 17 years.

Final diagnosis. CF with pulmonary and intestinal manifestations, severe course. Bilateral mixed bronchiectasis. Chronic obstructive bronchitis. Chronic colonization of airways by *Pseudomonas aeruginosa*. Chronic cardiopulmonary disease. Chronic cor pulmonale. Moderate pulmonary hypertension. Chronic pancreatic insufficiency, severe course. Type 1 diabetes mellitus, severe course. Decompensated macronodular cirrhosis. Portal hypertension syndrome, bleeding from esophageal and stomach varices. Chronic gastroduodenitis. Ascites. Urolithiasis. Hypersplenism. Deficiency anemia. Metabolic encephalopathy. Multiple organ failure syndrome.

Conclusions. This clinical case demonstrates the course and outcomes of cystic fibrosis with severe CFTR mutation delF508.

Filipov A.

PHYSICAL ACTIVITY IN THE TREATMENT OF OBESITY ADOLESCENCE

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Introduction. Today, in developed countries the excess body weight and obesity have 20-30% of the population. At the same time obesity causes cardiovascular diseases, diabetes, hypertension, disability and mortality of the most high. To overweight and obesity lead: sedentary lifestyle, excessive intake of highkokalorine foods especially against the background of hereditary and neuroendokrine disorders of metabolism. Thus the treatment for obesity consists of lifestyle changes, consumption of diet gipokalorine based physical activity and the use, if necessary, medication.

Materials and methods. Analyzes the history and an outpatient card 60 teenagers 15-18 years with obesity I-II , which were treated in the endokrinologìcal branch of the Institute of health care of children and adolescents (ÌOZDP). Among the Group was 23 boy and 27 girls. The 32 teenagers diagnosed ekzogene-constitutive obesity obesity and 28-nejroendokrinne. All the studied received treatment that includes a gipokalorine

diet. Patients with neuron-endocrine obesity treated with pharmacological therapy according to the Protocol. In the 36 teens in the complex treatment of used physiotherapy to 40 minutes twice a day under the supervision of a physician and Methodist EXERCISE. Before the start of treatment all teenagers conducted clinical examination with the assessment of the cardiovascular system and the definition of tolerance to physical activity. Therapeutic physical training included a total workout, mechanotherapy, in the form of classes in the veloergometr, a device for the dam. The course of treatment was 18 days. During the study was the body mass, body mass index (BMI), waist circumference (HERE), the circumference of the hips (OS) to the beginning and end of treatment.

Results of research. Against the background of the treatment in the group that developed the exercise therapy (and the Group) body mass decreased, on average, in 3.5 ± 0.4 kg. And in a group that is not concerned with EXERCISE (II Group) – 1.8 ± 0.5 kg. Clinically-significant loss of body weight (5-10% of the original) is marked according to the 80.4% and in 40,3%. ($p < 0,05$). Decrease in body weight was accompanied by authentic decrease in BMI from 44 to 31 kg/m² ($p < 0,05$). Waist circumference decreased to 55.5 cm 10% and 8.3% ($p < 0.02$) 7-9 cm 27.7% and 41,7%, 4-6 cm 16.8% and 50.0% ($p < 0.02$; 0.5 s 0.02). Dynamics of value SUCH AS/OS in cm. This indicates that in the group after the treatment this figure declined more and more significantly than in the second group. If the treatment ratio HERE/OS more than 1 was the same in the half of the teens, after treatment and the group it decreased to 0.8. At 50,3%, while in the second group only 10.4%, and became less 0.8 in the first group in 20,1%, and in the second group left without speakers.

Conclusions. 1. The results of the treatment for obesity in adolescents only gipokalorine diet or a diet combined with exercise therapy, suggests that combined therapy is more effective. 2. The Kinaesthetic activity increases energy and is a major factor of normalization and reduction of body weight for obesity.

Ivanashko K., Tatianko L.

ECG CARDIAC REMODELING MARKERS IN CHILDREN WITH BPD

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Introduction. Lungs, heart and pulmonary circulation is the main target lesion with bronchopulmonary dysplasia (BPD). Determination of paraclinic features of cardiac remodeling in conditions of ongoing lungs ontogenesis is a difficult and unresolved problem today.

Materials and methods. 249 children were examined, 206 (82.7%) of which are patients with BPD in a period of remission and 43 (17.3%) premature infants who had breathing disorders in the early neonatal period, but did not form BPD (the comparison group). Echocardiography (ECG) was performed. Statistical data processing was carried out using the program «STATISTICA-6".

Results of research. Sinus rhythm was detected in all groups. Tachycardia during ECG were observed in 125 ($60,6 \pm 2,4\%$) patients with BPD and in 23 ($53,4 \pm 5,3\%$) patients

of the comparison group. Among patients with BPD more often the angle α according to the ECG was ≥ 100 ($p = 0.001$). In the main group P wave amplitude in 46 (22,3 \pm 2,1%) children was ≥ 2 mm, which was higher than the 95 percentile ($p = 0.001$). The duration of the interval PQ was included in the limit of the average indexes in the range of 80 to 120 ms. It was found that the amplitude of R wave in lead V1 was significantly greater than the 95 percentile in 16 (7,7 \pm 1,5%) patients with BPD. Meanwhile, the S wave in V5 is <95 percentile detected in 11 (5,3 \pm 1,2%) patients of the main group. The amount of R wave in lead V1 and S wave in V5 is greater than 10 mm in 13 (5,6 \pm 1,3%) patients, and S wave is >95 percentile in lead V5 – in 55 (26,6 \pm 2, 4%) children of the main group. Low voltage of QRS complex in lead II was detected in 73 (35,4 \pm 2,7%) patients with BPD and in 2 (4,6 \pm 3,7%) patients in the comparison group ($p = 0.0001$). Forty-five (21,8 \pm 2,8%) patients of the main group and 5 (11,6 \pm 4,1%) examined of the comparison group had ST interval in lead II, above the isoline. In 6(2,9 \pm 1,5%) children of the main group ST interval was below the isoline. With the help of discriminant analysis ECG markers of BPD were revealed (in conclusions).

Conclusions. To electrocardiographic markers of BPD should be attributed:

- The high R wave in lead V1 ≥ 95 percentile (Wilks λ 0,759; F (1,46) = 146,6; $p < 0,0001$),
- R / S in lead V1 > 6.5 mm (Wilks λ 0,804; F (1,46) = 112,4; $p < 0,0001$),
- RV1 + SV5 > 10 mm (Wilks λ 0,928; F (1,46) = 35,5; $p < 0,0001$),
- P wave in lead II ≥ 95 percentile (Wilks λ 0,928; F (1,46) = 35,5; $p < 0,0001$),
- ST segment in II lead above the isoline, but not greater than 1 mm (Wilks λ 0,923; F (1,46) = 38,01; $p < 0,0001$),
- low voltage of QRS complex in lead II (Wilks λ 0,951; F (1,46) = 23,4; $p < 0,0002$).

Khmil O.

CASES OF HYPERHOMOCYSTEINEMIA IN PKU PATIENTS

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Introduction. Considering the significant world experience of the PKU cases management, we can observe a new generation of adult PKU patients, who from birth were on a specialized diet and received PKU formula. As they reach a middle age, the risk of cardiovascular disease in this group of patients arises

Materials and methods. 34 families from 11 regions of Ukraine, who have children with PKU have been investigated. The control group consisted of 18 people diagnosed with PKU, which was established during neonatal screening

Results of research. All patients were tested for R408W gene PAH mutations. These occurred in 29 families (85%), where in 13 families (38%) children were homozygous carriers. The study of various options for mutations found polymorphic variants of genes folate cycle system: compound Htzg MTHFR C677T / MTRR A66G, compound Htzg MTHFR C677T / MTR A2756G. Genotype Hmzg MTHFR C677T; Htzg MTR A2756G; Htzg MTHFR C677T was detected in 15%. In 30% was observed increased level of homocysteine in blood (two patients - \uparrow 50 mmol/l). These indicators allow to

suspect that we have dealt with the combined amino acid metabolism disorders - phenylalanine and methionine.

Conclusions. Hyperhomocysteinemia likely occurred due to the peculiarities of the PKU patients' diet - low consumption of foods containing B vitamins: folic acid, B6 and B12, which are cofactors of enzymes in the folate cycle. Furthermore, the folate cycle gene polymorphisms in PKU patients also conduce hyperhomocysteinemia.

Khomovskaya A.

THE RISKS FACTORS OF DEVELOPMENT INTERSTITIAL LANG DISEASE IN CHILDREN WITH SPASTIC QUADRIPLÉGIA

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Introduction. Spastic quadriplegia spans a wide spectrum diagnoses. Based on a clinical example the differential diagnostic thoughts are discussed in detail. Thought juvenile motor neuron disease is a rare entity, it has to be kept in mind for differential in cases of slowly progressive. Moreover, spastic quadriplegia is often combined with bulbar disorders. It leads to secondary respiratory disorders as children's interstitial lung diseases (ChILD).

Aim. Identify and systematize the risks factors of development interstitial lung diseases in children with spastic quadriplegia.

Materials and methods. 11 children with spastic quadriplegia without acute respiratory infection were examined in Kharkiv Regional Children's Hospital. Average age were $3,6 \pm 2,4$ y.o. 4 of 11 (36,4%) finally developed ChILD. Seven parameters of anamnesis were estimated: known mechanical ventilation, allergy, bulbar palsy in history; history of a seizure disorders, virus or bacterial contamination of respiratory tract; known gastroesophageal reflux disease.

Results of research. All children (100%) with spastic quadriplegia had mechanical ventilation and history of a seizure disorders. Allergy in anamnesis had 3 patient (27,2%), bulbar palsy in history identified in 6 children (54,5%). Respiratory tract contaminated by RSV in 2 children (18,2%), by parainfluenza type I 3 patients (27,2%) with spastic quadriplegia; 8 (36,4%) patients in respiratory swab had Klebsiella pneumonia and Pseudomonas aeruginosa. Diagnosis gastroesophageal reflux was in 5 of (42,4%) patients. The risk factors of development interstitial lung diseases in children with spastic quadriplegia were calculated by nonparametric statistic and sowed in conclusion.

Conclusions. Gastroesophageal reflux (KW (n=11) = 36,7; pаHГ – 4,19; p=0,001), history mechanical ventilation (KW (n=11) = 19,2; pаHГ – 3,26; p=0,05), and respiratory tract contamination (KW (n=11) = 11,3; pаHГ – 1,06; p=0,05), are the risks factors of development interstitial lung diseases in children with spastic quadriplegia.

Konareva V., Korolkova A., Tryhub Yu.

THE CASE OF EPIGENETIC PATHOLOGY – THE EARLY DIAGNOSTICS OF FRAGILE X SYNDROME (FXS)

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Introduction. Epigenetic diseases are the consequences of changing in the mechanisms of temporal and spatial control of gene activity during the development of complex organisms that leads to modifications of phenotype and could be inherited. The actuality of this problem is associated with new knowledges in this area and scientific confirmations of epigenetic genesis of many diseases. The general classification includes 3 points grouped by mechanisms of conformation. The first detected epigenetic disease was FXS. This pathology appears because of influence on the structure of chromatin in cis-configuration.

Materials and methods. We analyzed 8 medical archival cards of patients with FXS who are under observation of Kharkiv Specialized Medical Genetic Center (KSMGC). The frequency in population – 1:4000 in men, 1:6000 in women.

Results of research. The case of observation of 1 patient from 8 ones was considered as an example of possible early diagnostics.

Complaints: lack of speech, retard of psychophysical development. Prenatal period was complicated by upper respiratory tract infections and pregnant's trauma. Parturition was normal. From 6 months in the child was detected next pathology conditions: ataxia, movement disorders, inguinal hernia, left breast's atheroma, later congenital chest's deformation, dysplastic cardiomyopathy and hydrocephalus. Martin-Bell syndrome (FXS) was diagnosed, the treatment with folic acid and carnitine was prescribed. Afterward there appeared signs of highly excitability of the cortex and separate epileptiform signs in the temporal zones. Symptomatic treatment with insignificant effect was prescribed. While specializing diagnostics weren't noticed any phenotype signs but were checked increasing level of cysteine, homocysteine, magnesium, leucine, isoleucine, valine. This signs indicates about folate-methionine cycle involvement to the process. Co-factor therapy, cytoflavin, gliatilin, mixedol, amberin, phosphoglyph was prescribed. Therapy had visible improvement: child became calm, contact, with better fine motor skills. Basic biochemical signs normalized but lactate dehydrogenase, alkaline phosphatase continued be in high levels.

Conclusion. During this observation was detected the possibility of diagnostics of FXS in early childhood period based on the clinical signs and methylation disturbance. These characteristics prove importance of metabolic disorders of methionine in diagnostics of epigenetic diseases. Further analysis of other 7 observations will allow to show the clinical polymorphism and genetic heterogeneity of FXS.

Korolkova A., Korchak Y.

COMPARISON OF CLINICAL SYMPTOMS AND ANAMNESIS IN NEWBORNS WITH ANTENATAL INFECTION

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Introduction. Nowadays the frequency of antenatal infection (AI) is unknown exactly, however this problem belongs to severity pathologies. It leads to possible disability of child or even to increasing of neonate death rate. Consider these facts AI need a high attention from medical specialists.

The aim. To analyze the information about clinical symptoms and anamnesis in newborns with possible realization of AI.

Materials and methods. The 21 medical cases was investigated. Newborns were full-term with signs of possible realization of AI according to anamnesis of gestation and clinical symptoms on the first days.

Results of research. It was detected a complicated gestation in all women. Threatened miscarriage was in 14,2% of pregnant women, that leads to staying of patients in the hospital. Also 23,8% of women had relapse of chronic pyelonephritis, 28,8% - the symptoms of colpitis, 14,2% - the symptoms of cold in the last trimester, 19% - uncaused increasing of temperature (37-38°C) during the last gestation`s months.

After the somatic status studying were founded next chronic pathologies: chronic pyelonephritis, vegetative-vascular dystonia, chronic tonsillitis, caries, obesity of different degree. In gynecological anamnesis were some problems too (inflammatory processes, menstrual disorder or prolonged infertility). During the process of labor were noted prolonged anhydrous period (61,9%), weakness of birth activity (45%) and early placental abruption (7%).

Newborns had different valuation by Apgar score: on the first minute 7 points and more - 65%, 5 points (with medium asphyxia) - 30%, 3 points (with severe asphyxia) - 5%. Neonatal resuscitation was provided in 35 % of children. Clinical symptoms of AI were detected at 25% of newborns like a delay of segregation of stump of umbilical cord, syndrom of disadaptation in the first 3 days. All children were sent home from hospital in medium condition. During medical observation the clinical symptoms of AI weren`t seen by doctors.

Conclusions. 1. After studying of the newborn`s anamnesis with signs of realized AI were developed a complicated gestation in all women. 2. This category of newborns had had the syndrom of disadaptation in the first 3 days which didn`t lead to infection neonatal period. 3. For prevention of this problem is necessary a teamwork of different medical specialists (complex survey and attention from doctors)

Conclusions. Thus, the study of the peculiarities of the respiratory system of young children makes it possible not only for doctors but also for each parent to prevent certain pathological processes, which make up most of the diseases observed in children under 5 years old.

Koval V.

DEBUT OF ACUTE LEUKEMIA IN CHILDREN: DIAGNOSTICS MISTAKES TO AVOID

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Introduction. Acute leukemia (AL) accounts about one third of all cancer diseases in children. Variable signs of AL cause problems in early diagnostics and delay of proper treatment. The aim of the research is to study the initial clinical signs of AL in children for improvement of its early diagnostics.

Materials and methods. 92 case histories of children with AL treated at the haematology department of Kharkiv City Children's Clinical Hospital №16 have been analysed. Obtained data have been processed using the software MS Excel and STATISTICA 7.0.

Results of research. Acute lymphoblastic leukemia (ALL) was in 81.5% of cases and acute myeloid leukemia (AML) was in 18.5%. AL was more typical for boys ($p=0.0004$). At debut of AL symptoms of intoxication were present in $94.6 \pm 2.3\%$ and were most evident in boys ($p=0.0000$). Fever was present in $82.6 \pm 4.8\%$ of cases and it was more common for boys ($p=0.0231$). Hemorrhagic syndrome has been observed in $77.2 \pm 5.4\%$ of children with a tendency to be more common in AML ($p=0.0580$). Lymphadenopathy was in $84.8 \pm 4.7\%$ of cases and more common for ALL ($p=0.0003$) and in boys ($p=0.0041$). Hepatosplenomegaly was in $96.7 \pm 2.3\%$ of cases. Gingival hyperplasia was in 9 cases and enlargement of testes was in 6 boys. Ostioarticular pain was present in $47.8 \pm 6.5\%$ of cases with prevalence in girls ($p=0.0045$). Pains in the abdomen were in 15.3% of cases. A headache was present in 9 children. Cardiac pain was in 2 elder children. In $23.7 \pm 4.9\%$ of cases decreased physical development was present. Cardiac syndromes were present in 26.1% of cases. Renal syndromes were in 14.5% of children. Bronchitis or pneumonia was in 13.2% of cases. Intestinal disorders were in 9.2% of cases.

Laboratory data showed that anemia was in $82.6 \pm 4.9\%$ of cases, thrombocytopenia was in $81.5 \pm 5.1\%$ of cases, leukocytosis was in $52.2 \pm 6.5\%$ of cases, leukopenia was in 23.7% of cases.

Only in half of the cases the correct diagnosis was established in period less than 2-3 weeks since the first symptoms appeared.

Conclusions. Late diagnosis is likely connected with variable and non-specific initial signs of AL and the lack of oncologic alarm in general practitioners. So, presence of intoxication, pale skin, lymphadenopathy, hepatosplenomegaly, fatigue, weakness, weight loss, bone pain in child it is necessary to conduct a complete blood count and consultation of a hematologist in doubt cases.

Samer Maarabuni

PREVALENCE OF OVERWEIGHT AND OBESITY IN PRIMARY SCHOOLCHILDREN

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Introduction. Obesity has been described by the WHO as “a global epidemic” due to its high and increasing prevalence. Childhood obesity is strongly associated with risk factors for cardiovascular diseases and diabetes, orthopaedic problems and mental disorders. Moreover, childhood obesity is linked to underachievement at school and to lower self-esteem. Over 60% of children who are overweight before puberty will be overweight in early adulthood, reducing the average age at which noncommunicable diseases become apparent and greatly increasing the burden on health services.

The aim of the study was to investigate the determinants of overweight and obesity of 126 schoolchildren aged from 6 to 11 years.

Materials & Methods. Measurements were done in primary schoolchildren in Kharkiv schools. The surveillance system is implemented in accordance with the International Ethical Guidelines for Biomedical Research Involving Human Subjects. Parents were fully informed about all study procedures. Anthropometry was carried out in the morning, before lunch, by standardized procedures. Weight, height and body mass index (BMI); the prevalence of underweight, normal weight, overweight and obesity and median and mean BMI were studied. Children were classified as underweight, of normal weight, overweight or obese by the 2007 WHO reference for school-age children and adolescents. A few characteristics of the school environment were included, such as the frequency of physical education, the availability of school playgrounds, the possibility of purchasing a number of listed food items and beverages on the school premises, and current school initiatives to promote a healthy lifestyle (healthy eating, physical activity).

Results of research. 11.5 % of boys and 8.5% of girls who have a BMI at or above the 95% were considered overweight. 2.3% of boys and 1.8% of girls with a BMI that falls between the 85%-95% were classified as at risk for overweight. Elementary school-aged children who saw unhealthy food advertising while watching a children’s cartoon program consumed 45% more snacks than the group of children who watched the program with non-food advertising. 17 % of children skip breakfast, over 25% of young people only consume fruit once a week or less, 37% exercise less than 4 days a week outside of school, 38% watch 2-4hours of TV every day and play electronic games.

Conclusions. The surveillance system target population is primary school-age children, the group that is most sensitive to environmental influences and is showing the greatest increase in the incidence of overweight and obesity. Two objectives – optimizing diet and increasing physical activity – are essential for combating the obesity epidemic.

Sultan M.

KASABACH-MERRIT SYNDROME IN A CHILD: CASE REPORT

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Introduction. The Kasabach-Merritt syndrome (KMS) is seen only on the first year of life and is characterized by combination of enlarging vascular lesion, profound thrombocytopenia, microangiopathic hemolytic anemia, and consumptive coagulopathy (DIC syndrome). KMS was first described in 1940 in a male infant with a large, rapidly enlarging discolored lesion on his thigh that was associated with consumptive coagulopathy and thrombocytopenia. It is rare but potentially fatal syndrome.

Materials and methods. A boy of 1 month 18 days' old stayed in hematological department of the Children Hospital №16, Kharkov, Ukraine, from 03.02.17 up to 02.03.17 with the diagnosis: Kasabach-Merritt syndrome. Intestinal dysbiosis. The following examinations have been performed: CBC, proteinogram, biochemical blood test, functional liver test, coagulogram, stool test, urinalysis, serological test, ultrasound examination of the soft tissues of the left shoulder, CDI, X-ray of the upper extremity, and histological test of the tumor. The baby received the following treatment: fresh frozen plasma, transfusion of packed erythrocytes, transfusion of platelets, Novoseven- 320 ml by IV injection every 2-3 hours until hemostasis, Bioven mono- 5% solution 50 ml by IV injection, Ceftriaxone- 200 mg once daily by IV injection over 2-4 min., Tobramycin-10 mg every 8 hours by slow IV injection over 3-5 min., Vicasol- 1mg daily by SC injection, Dicynone - 1 ampoule (250mg- 2ml each) by IV injection every 6 hours, Probiotics (lactobacillus) -1 capsule per day, administered by stirring the capsular contents into the baby's food, Prednisolone-10 mg per day orally since 13.02.17 up to discharge. Solu-Medrol (methylprednisolone sodium succinate) - 150 mg by IV injection daily, during 5 days. On the background of the therapy condition of the baby improved, hemorrhage was arrested, and size of hematoma was diminished.

Results of research. Vascular tumors are seen most frequently in the structure of oncological diseases in childhood. Among benign neoplasms, the tumors of the vessels are presented in 50.6%, in 81.3% of cases there are hemangiomas. Frequency of occurrence in children is 1: 1500. KMS is seen only on the first year of life and is presented with rapidly growing capillary hemangioma. Giant hemangioma of skeletal muscles can occur which consist of thin-walled capillaries infiltrating the whole extremity. Localization in skin of trunk, head, neck, more rarely in the inner organs (liver, brain) is described; there are single reports about presence of hemangioma in spleen. Hemangiomas are characterized by infiltrating growth due to it they are predisposed to recurrence. KMS is rare but potentially fatal syndrome. In treatment glucocorticoids, more rarely irradiation of affected area and surgery (if possible) are used.

Conclusions. 1. KMS is a rare but potentially fatal syndrome which typically occurs in early infancy (< 1 year) or childhood.

2. Arrest of bleeding is the main aim of the treatment.

Tikhonova O.

SPECIFICITY OF PAIN ASSESSMENT SCALES USE IN CHILDREN

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Introduction. International Association for the Study of Pain, IASP defines pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage". Additional note concerns the pain experienced by children: "The inability to verbal communication does not deny the possibility that the individual feels pain and require analgesic treatment."

At the moment there is a number of scales for pain assessment in children of different ages. For children under 3 years there are FLACC scale and TVP Scale. Behavioural FLACC scale scores from 0 to 2 parameters such as facial expression, motor activity and tonus of the legs, common activity, crying, possibility to calm the child.

In accordance with the WHO guidelines regarding to the pharmacological treatment of resistant pain in children with medical diseases, most common are tools for pain measurement based on the idea of counting and recommended by the Ped-IMMPACT and SPP-ATF: Faces Pain Scale-Revised; Poker Chip Tool; Visual analogue scale (VAS); Oucher photographic scale; Numeric rating scale.

Materials and methods. We examined 10 patients of the Kharkov regional children clinical hospital, children aged from 3 to 8 years with organic lesions of the central nervous system, which had episodes of acute pain.

Results of research. It is obvious that scales like Faces Pain Scale-Revised and the Oucher photographic scale may not be used in this patient population because of the peculiarities of facial expressions and reaction to acute pain. The visual analogue scale, numeric rating scale and Poker chips tool require high levels of abstract thinking in the child that sometimes does not achieve the validity and reliability of the results. However, the parameters of the scale FLACC does not require verbal skills or the development of abstract thinking in the child. A comprehensive assessment of the level of acute pain is impossible without taking into account the main indicators of the condition of the organism, such as heart rate, respiratory rate, and skin color, which can signal the stress, and, eventually, exhaustion of the homeostase and the vegetative component.

Conclusions. Thus, in patients with organic lesions of the central nervous system that are experiencing acute pain, using of FLACC scale is recommended, in the complex with parameters of autonomic regulation including heart rate, respiratory rate and skin color.

Veera Venkata Akhil Magapu, Abdullah Saad, Shahnawaz Gul

CLINICAL CASE OF ARTICULAR SYNDROME IN PATIENTS WITH CONGENITAL HYPOGAMMAGLOBULINEMIA

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Introduction. One of the actual problems of pediatric immunology is primary immunodeficiencies. The clinical case of X-linked congenital hypogammaglobulinemia is presented features of an anamnesis of patients with the rare and difficultly diagnosed pathology.

Materials and methods. Brothers A. and D., aged 5 and 2 years, which had the aggravated family anamnesis. All of the male descendants of maternal line had severe infectious diseases (pneumonia, pleurisy, meningitis) resulted in death in childhood.

The boy A., 7 years old, was born from 2 pregnancies, 1 birth with the weight at a birth - 3000g. Respiratory diseases, pneumonia, acute gastroenterocolitis, conjunctivitis, stomatitis, streptoderma, panaritium, abscess have been observed monthly. In the immunological blood test the levels of CD 22 + - lymphocytes - $0.91 * 10^9 /L$, CD 25 +- lymphocytes - $1.97 * 10^9 /L$, levels of IgG, IgA are less than 2 g/L.

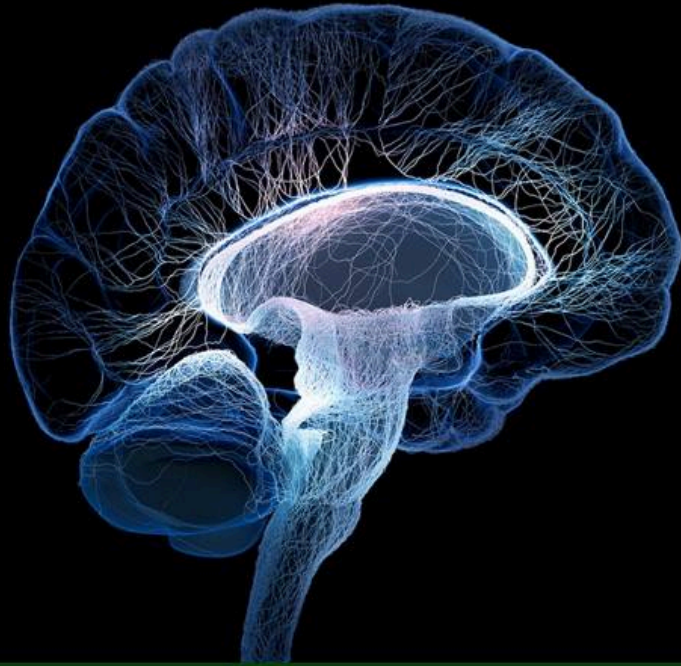
The boy A., 5 years old, was born from 3 pregnancies, 2 birth with the weight at a birth - 3200g. Manifestations of infectious pathology were observed from the age of 8 months: respiratory diseases, single pneumonia, repeated acute gastroenterocolitis, conjunctivitis, otitis, whooping cough, peritonitis.

In the immunological blood test the levels of CD 22 + - lymphocytes - $0.41 * 10^9 /L$, CD 25 +- lymphocytes - $1.26 * 10^9 /L$, levels of IgG, IgA are less than 2 g/L.

Results of research. The articular syndrome was manifested in brothers from 5 and 2 years of age, respectively, when were appeared complaints of pain and swelling of the knee joints, gait change; and juvenile chronic arthritis was diagnosed. Therapy with non-steroidal anti-inflammatory drugs without effect.

Systemic rheumatic manifestations are developed in these patients and articular syndrome is characterized by episodic migratory polyarthralgia or arthritis of large joints with a prolonged course not lead to X-ray changes.

Conclusions. The clinical case of X-linked congenital hypogammaglobulinemia has described a variety of clinical manifestations, the need for a multisystem assessment, diagnosis and monitoring of this pathology.



NEUROSCIENCES



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Andikan Effiong Udoh

POST TRAUMATIC STRESS DISORDER IN JAPAN

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Introduction. On March 11, 2011, a magnitude 9.0 earthquake occurred off the Pacific Coast of northeastern Japan. A resulting tsunami damaged the Fukushima-Daiichi Nuclear Power Plant, leading to a major nuclear disaster in addition to other local destruction. Years after this unprecedented "triple disaster," symptoms of Post Traumatic Stress Disorder and depression still persist. Post traumatic stress disorder (PTSD) is defined as a pathological anxiety that usually occurs after an individual experiences or witnesses severe trauma that constitutes a threat to the physical integrity or life of the individual or of another person. The individual initially responds within intense fear that the emotional event will be repeated, helplessness, or horror. The person later develops a response to the event that is characterized by persistently re-experiencing the event - repeated vivid flashbacks of the event that lead to physical reactions such as rapid heartbeat or sweating, with resultant symptoms of numbness, avoidance of social interactions gradually becoming more withdrawn and hyperarousal. This symptoms result in clinically significant distress or functional impairment.

Materials

and methods. In studies investigating trends in mental health problems over time, post traumatic stress symptoms tended to improve, or in any case not get worse. In contrast, depression symptoms tended to persist during follow-up.

Results of research.

Risk factors for mental health problems included resettlement of daily lives, pre-existing illness, and small social network size. The reported prevalence of post-traumatic stress reactions was higher in Fukushima prefecture, where the damaged nuclear power station was located. Suicides increased initially, followed by a decrease in the two years after the earthquake. However, the suicide rate remained higher than the predisaster level in Fukushima, in contrast to neighboring prefectures.

Conclusions. The results suggest the need for long term mental health support in Fukushima, especially targeting evacuees who are still living in temporary housing. It's very important with natural disaster trauma that the victim gives himself time to heal and pass through an appropriate mourning process. Only by processing the experience over a realistic period of time is healing possible. Group therapy, individual and family therapy, cognitive behavioral therapy, anxiety management and relaxation techniques should be employed in rehabilitation of the affected.

Artamonov R., Dubovyk V.

THE AIM OF THE STUDY WAS TO DETERMINE THE ROLE OF PSYCHOSOCIAL AND BIOLOGICAL FACTORS IN THE FORMATION OF A PREDISPOSITION TO DRINKING ALCOHOL IN ADOLESCENTS

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Introduction. This scientific work is devoted to a detailed study of the problem of child alcoholization and the identification of biological and psychosocial characteristics among children who regularly drink alcohol. The aim of the study was to determine the role of psychosocial and biological factors in the formation of a predisposition to drinking alcohol in adolescents.

Materials and methods. 70 adolescents of both sexes aged 13-17 years were examined. All adolescents were divided into 2 groups: the first group included 30 teenagers consuming alcoholic beverages; Control group comprised 40 adolescents. To study the psychosocial factor, an author's questionnaire was developed, in which such questions as the social status of the family, the frequency of alcohol consumption. The study of the biological factor was carried out using the questionnaire of Leonhard-Shmishek

Results of research. "Author's questionnaire" showed that 20.9% of the adolescents regularly consumed alcohol (at least once a week), 61.3% did not drink alcohol and 17.8% of adolescents occasionally (once a year)) Who drink alcohol. All the parents surveyed took alcohol this year. When conducting studies on the technique of LS in adolescents, a large number of character accentuations were revealed. Absence of character accentuations was noted in 23.5% of adolescents in the comparison group. The emotional index was observed twice as often in adolescents in the comparison group. In adolescents who drink alcohol, incompatible accentuations of character have been identified.

Conclusions. The risk factors for alcohol use among adolescents are: the early age of first drinking, the use of alcohol in the circle of peers, the tolerant attitude of parents towards alcoholization of adolescents. For adolescents who drink alcohol, characteristic is the disharmony of personality traits and a combination of incompatible accentuations of character. Low emotiveness erases the prerequisites for the formation of moral and social attitudes.

Asante G., Ashiq Parappil

DEMENTIA

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Introduction. Dementia is a clinical syndrome characterised by a loss of previously acquired intellectual function in the absence of impairment of arousal, and affects 5%

of those over 65 and 20% of those over 85. It is defined as a global impairment of cognitive function, and is typically progressive and non-reversible. According to Diagnostic and Statistical Manual of Mental Disorders (DSM-5), Dementia has been renamed as Neurocognitive Disorder. The word "dementia" is related to a Latin word for "mad," or "insane." Because of this, the introduction of the term neurocognitive disorder attempts to help reduce the stigma associated with the word dementia. In International Classification of Diseases (ICD 10) Dementia is found under Mental and behavioural disorders (F00-F99). Dementia may be divided into 'cortical' and 'subcortical' types, depending on the clinical features.

Materials and methods. Different forms of dementia can be classified according to the aetiology such as vascular (Binswanger Disease), degenerative (Alzheimer's Disease) and other diseases which lead to dementia such as Pick's disease, Huntington's disease, Creutzfeldt-Jakob disease etc. Alzheimer's disease has the highest frequency followed by Vascular dementia.

Alzheimer's disease is an irreversible, progressive brain disorder that slowly destroys memory and thinking skills. The damage initially appears to take place in the hippocampus, the part of the brain essential in forming memories. The causes probably include a combination of genetic, environmental, and lifestyle factors. Binswanger's disease, also known as subcortical leukoencephalopathy, is a form of small vessel vascular dementia caused by damage to the white brain matter. White matter atrophy can be caused by many circumstances including chronic hypertension as well as old age. Dementia symptoms vary depending on the cause, but common signs and symptoms include: Cognitive changes (Memory loss, which is usually noticed by a spouse or someone else, Difficulty communicating or finding words, reasoning or problem-solving, planning and coordination and motor functions) Psychological changes (Personality changes, Depression, Anxiety, Paranoia, Agitation, Hallucinations). There is no single test to diagnose dementia. A number of different test are done to diagnose dementia. Cognitive and neuropsychological tests (which evaluates the thinking skills). Neurological evaluation (evaluate your memory, language). Brain scans (CT or MRI, PET scans (These can show patterns of brain activity and if the amyloid protein has been deposited in the brain). Laboratory tests (Simple blood tests can detect physical problems that can affect brain function, an underactive thyroid gland. Spinal fluid is examined for infection, inflammation or markers of some degenerative diseases).

Results of research. Risk factors for dementia, such as age and genetics, cannot be changed. Some of the most active areas in risk reduction and prevention include cardiovascular factors, physical fitness, and diet.

Conclusions. Dementia like most other neurological diseases are difficult to diagnose early and affects the social life of patients. Supportive treatment and pharmacological treatment are available but not very effective to eradicate all symptoms. The path to effective new treatments for dementia is through increased research funding and increased participation in clinical studies.

Chernushova I.

PREVENTION OF PSYCHOLOGICAL RISKS IN WOMEN WITH PPD

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Introduction. Postpartum Depression PPD (postnatal depression) — is a widely spread emotional disorder which can affect new mothers after childbirth. This disorder can be long-term, mild or severe. The mild form is also known as the "baby blues." Mild symptoms include anxiety, depression, irritability, confusion, crying spells, as well as sleep and appetite disturbances. These feelings can last anywhere between 24 hours to 72 hours. More drastic symptoms come with postpartum depression, including hopelessness, suicidal thoughts, infanticide, panic, among many other feelings that can last for weeks or even months.

Although a number of risk factors have been identified, the causes of PPD are not well understood. Hormonal change is hypothesized to contribute as one cause of postpartum depression. The emotional effects of postpartum depression can include sleep deprivation, anxiety about parenthood and caring for an infant, identity crisis, a feeling of loss of control over life, and anxiety due to lack of support from a romantic or sexual partner. Many women recover with treatment such as a support group, counseling, or medication.

Objectives: to study methods of preventive measures of PPD.

Materials and methods. 10 new mothers with PPD have been examined. The following methods have been used:

- 1) putting a baby to the breast right after delivery;
- 2) "Kangaroo care".

The Kangaroo Mother Care Method has challenged traditional childcare practices related to premature or low-weight infants at birth; has allowed parents to recover their prominent role within the physical and emotional recovery process of their children, and it has made neonatology a more humane practice.

Results of research. The above methods applied to two of the mothers examined have failed to result positively, they have proved to be having PPD in the very early stage. Seven of the women examined have demonstrated interest to their babies and other positive changes having been treated actively for 2 days. The above methods applied for the first time to one new mother has helped her recover completely.

Conclusions. A major part of prevention is being informed about the risk factors, and the medical community can play a key role in identifying and treating postpartum depression. Women should be screened by their physician to determine their risk for acquiring postpartum depression. Also, proper exercise and nutrition appear to play a role in preventing postpartum, and depressed mood in general. A variety of treatment options exist for PPD, and treatment may include a combination of therapies. If the cause of PPD can be identified, treatment should be aimed accordingly.

Darii I.

**THE DEPENDENCE OF THE DEVELOPMENT OF THE
ATHEROTHROMBOTIC SUBTYPE OF ISCHEMIC STROKE FROM
ALLELIC POLYMORPHISM C677T GENE N5, N10 –
METHYLENTETRAHYDROFOLATE REDUCTASE**

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Introduction. Homocysteinemia theory of atherosclerosis is one of the modern theories of pathogenesis of cardiovascular diseases. Study of the polymorphism of the MTHFR gene allowed to detect the association of C677T polymorphism with cerebrovascular disorders. The purpose of the work: to study the frequency of single nucleotide polymorphisms of the gene MTHFR at patients with atherothrombotic subtype of ischemic stroke (ATIS) and search for relationships between different allelic variants of the gene MTHFR and the probability of development of this pathology among the population of the South-Eastern region of Ukraine.

Materials and methods. In our research work we were using venous blood of 21 patients with ATIS (47,6% women and 52,4% men) aged from 42 to 79 years (mean age $61,3 \pm 1,22$ years) who were treated in the 2nd neurological department of communal establishment "6-th City Clinical Hospital". A control group included 19 patients (mean age $63,1 \pm 1,33$ years), which didn't have violations of cerebral and coronary circulation. The C677T polymorphism (rs1801133) of the MTHFR gene were determined using the method of polymerase chain reaction with subsequent analysis of the lengths of restriction fragments.

Results of research. The distribution of patients with the C677T genotypes is significantly different, comparing to patients with ATIS and patients of the control group. First, the percentage of homozygotes for the minor allele (TT) was significantly higher, but heterozygotes (CT) lower than the control group ($p < 0,05$). The risk of developing stroke was 2,8 times higher in homozygous variant TT, when compared with carriers of the main allele (CT+CC). The division of patients by gender showed that differences in the frequency distribution of allelic variants C677T polymorphism between patients with ATIS and control patients that is specific only for males ($p < 0,05$).

Conclusions. For representatives of Ukrainian population, as for many others, there is a relationship between the frequency of genotypes with the C677T polymorphism and development of ATIS. This relationship reveals itself, in particular for male patients. Homozygotes for the minor T-allele have a higher risk of developing ATIS than carriers of the main C-allele.

Enemigin E.

PSYCHOTHERAPUTICAL CORRECTION SYSTEM OF SOMATOGIC DEPRESSIVE SPECTRUM DISORDERS IN PATIENTS WITH CEREBRAL STROKE

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Introduction. Today, there are no doubts for the fact, that "the era of neurotic disorders", the main mental group of disease in twentieth century, comes to the end, and the beginning of the XXI century is replaced by "Depression spectrum disorders era". Post-stroke depressive spectrum disorders usually develops within 3-24 months after the stroke are defined as a "mood disorders caused by cerebrovascular disease associated with the symptoms of depression, anxiety and hypochondria, with presence of episodes such as major depressive or mixed." The majority of cerebral stroke (CS) patients suffered from depressive spectrum disorder that complicated the course of treatment, the outcomes of the disease, the recovery and rehabilitation processes. Approximately 10-15 % of patients with depression prone to suicidal attempts That is why the aim of our research : in CS patients to create system of psychotherapeutically support and correction of such disorders.

Materials and methods. Clinical methods, psycho-diagnostical methods (The Modified Rankin, ScaleHamilton scale of depression (HDRS), Beck scale of depression (BDS), Spylberger scale of personal and reactive anxiety, Mini-Mental State Examination (MMSE), quality of life test (Mezzich I., Cohen N., Ruiperez M., Lin I., and Yoon G., 1999), statistical methods.

Results of research. For the conducting of the research 60 patients with ischemic cerebral stroke were involved. In a group of examination 70% (42 persons) were male and 30% (18 persons) were female. Most of the patients belonged to the age group 56 - 65 years old - 43,3 % (26 persons), 41,7 % (25 persons) of the patients belonged to the age group 46-55 years, 15 % (9 persons) of the patients belonged to the age group of 36- 45 years. The average age of the patients was $53,3 \pm 5,5$ years. Among them in 42 cases (70%), middle cerebral arteries were involved in the pathological process, in 18 cases (30%) - vertebra basilar basin. The number of patients with ischemic CS in the left or in the right middle cerebral artery was equal and counted 21 persons. In the implementation of system of psychotherapeutical correction, we have select five stages: Stage 1 - Diagnostical, 2 stage - Adaptational, Stage 3 – Medical, Stage 4 - the final, Stage 5 – psychoprophylaxis.

Conclusions.

The proposed system demonstrated a significant improvement in 77 % of CS patients, it allow to decrease frequency and severity of somatogenic depressive and anxiety disorders, improve quality of life and social functioning of our patients.

Gupta A., Samoilova H.

ALZHEIMER'S DISEASE

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Research advisor: Tovagnyanska O. L.

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Introduction. Alzheimer Disease (AD) is a progressive, degenerative disorder that attacks the brain's neurons resulting in loss of memory, cognition, language skills & behavioral changes. Among the people of age seventies- 61% die of AD. A "Game Changer" drug named "ADUCANUMAB" has been recently discovered that acts on β -amyloid plaques & neurofibrillary tangles that cause synaptic dysfunction & neurodegeneration leading to AD.

Aducanumab is a human monoclonal antibody that enters the brain, bind parenchymal Amyloid- β , and reduce soluble and insoluble Amyloid- β in a dose-dependent manner.

Materials and methods. A Recent experimental study was presented in the "12th international Conference on Alzheimer's disease, Parkinson's disease & Related Neurological Disorders", 2016; that aimed at the effects of Aducanumab. A current study was performed on 166 men and women in early stages of AD (having evidence of plaque building). They were divided into 4 different groups and given intravenous doses of Aducanumab i.e. Low dose of 3mg/kg, Moderate dose of 6mg/kg, High dose of 10mg/kg & placebo dose. The experiment was carried out for a year & at the end brain scans (CT scan, PET imaging & Radioactive tracing) were performed.

Results of research. Group of people that were given high dose treatment (10mg/kg) was presented with marked improvement in memory & cognition during various tests like "Mini Mental State Exam" & "Clinical Dementia Rating". Group of people with moderate & low dose showed negligible improvement whereas with placebo dose there was no effect at all. Common side effect included Headache & Brain swelling only in people with APOE-E4 gene but the minimal side effects of the drug were overlooked against the highly effective positive effects.

Conclusions. Aducanumab has a very effective dose dependent effect in treatment of AD. Also, on 1st June 2016 the drug got Prime Status in Europe in treatment of AD and on 1st September 2016, it received fast track designation for treatment of early stages of AD in USA.

Litvin N., Abuzova Y.

EVALUATION OF THE EFFECTIVENESS OF VALPROIC ACID DRUGS IN THE TREATMENT OF EPILEPSY

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Introduction. Epilepsy is a chronic, endogenous-organic brain disease characterized by generalized and partial seizures, typical changes in character and thinking, and the possible development of psychosis. According to WHO, about 40 million people worldwide suffer from this disease. Epilepsy has socially significant consequences in

terms of premature mortality, lost productivity and changes in the quality of life of patients. The treatment of epilepsy is simple and affordable and is based on a daily intake of inexpensive drugs. In addition, after several years of successful treatment and absence of seizures, drugs can be abolished in approximately 60% of patients without subsequent relapses.

The aim of our study is to determine the effectiveness of valproic acid drugs in the treatment of epilepsy.

Materials and methods. 20 patients with a generalized form of epilepsy of both sexes aged from 20 to 25 years were treated. Also, according to the Bek scale, which was 15-17 points, the patients were diagnosed with moderate signs of depression. In the structure of depression prevailed: sleep disturbance, pathologically altered mood, anxiety, irritability with elements of aggression, a sense of insolvency. For treatment, we used the sodium valproate (dosage 300 mg).

Results of research. As a result of the study, it was revealed that epileptic seizures stopped in 8 patients (40%), 10 patients (50%) had a seizure frequency decreased, and 2 patients (10%) had no effect. In 14 patients (70%), the intake of sodium valproate improved mood and reduced anxiety, in 4 patients (20%) normalized their sleep and decreased irritability, and in 2 (10%) did not affect the emotional state. Patients in their subjective sensations evaluated the effectiveness of the drug as good in 85% of cases, the remaining 15% were dissatisfied with the treatment. Also, 3 patients (15%) complained of the side effects of the treatment: nausea, tremor, drowsiness.

Conclusions. Based on the results of the study, it can be concluded that sodium valproate has a pronounced therapeutic effect, has a tranquilizing effect, is well tolerated by patients, in most cases does not cause side effects. Thus, the evaluation of the effectiveness of valproic acid drugs allows us to recommend them as first-line drugs for epilepsy.

Kuleshova A., Ivakhnenko D.

DYNAMIC PATTERN OF NOSOLOGIC UNITS' DEGREE OF MORBIDITY IN THE PRESENCE OF CIVILIAN POPULATION'S CHRONIC STRESS

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Introduction. Not so long ago many Ukrainian people knew about war only from movies, books and veterans' stories. Nowadays, civilians and people living in military anti-terrorist operation zone (ATO) have been living in a psychoinjuring situation for 3 year. They have to hear explosions, machine gun fire, hide in the basement, see the death of their relatives and friends. They have lack of stability and confidence in the future and other stressful things. Such kind of reality won't pass without touching physical and mental health of the population.

The main aim of this work is learning the impact of prolonged stress factors on the

appearance and aggravation of diseases in the military and civilians of ATO zone. **Materials and methods.** The neurologist, psychiatrist, cardiologist and three family doctors were interviewed. After that we analyzed this information. **Results of research.** People begin apply to psychiatrist more often, then earlier. Only in 2014 were recorded over 150 complaints between military people. Doctors noticed rising complaints for insomnia, nightmares, asthenia, depression and decreased of earning capacity between civilians. The

situation with depression, suicide, aggression, hostility and folly behavior begins worse. Doctors noticed that before the conflict the main contingent of their patients were elderly people, but now is rapidly growing uptake among young and middle people who do not see the point in their lives, have lost faith in a happy future, who revealed a lot of somatic diseases. The number of myocardial infarction and stroke was also significantly increased. The problem of drug and alcohol abuse among the military has always been acute in our population, but under the influence of chronic stress, it increased to a critical level. The main cause of alcohol abuse is stress, but in this situation it is also important lack of motivation. Those men, who understand why they are in the combat zone, and for what reason they are there, as a rule, don't have problems with alcohol or drugs. **Conclusions.**

Thus, the analysis of the identified data showed that in conditions of prolonged exposure to stressful factors increase mental and physical illnesses, drug and alcohol abuse, which proves the need of drug therapy and psycho-correction methods.

Magapu Veera Venkata Akhil

EFFECTS OF HAPPINESS, SADNESS, ANGER AND ANXIETY ON REASONING

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Introduction. Dual-process theories posit two systems of reasoning. Type I often called "heuristic system" is automatic, fast and heuristic-based. This kind of reasoning often leads to correct response but could lead to bias and errors too. Type II, often called "analytic system" corresponds to a controlled, rule-based and slow process and requires a lot of computational capacity. According to this theory, Type II mostly overrides type I when response produced by the two systems do not match, even if a heuristic response could be produced sometimes. The choice of one of the systems can be influenced by the emotional state. The aim of this study is to explore the effects of four specific emotions (happiness, sadness, anger, and anxiety) on two systems of reasoning (heuristic and analytic systems) by highlighting which system is used according to the emotion through three reasoning tasks.

Materials and methods. 190 adolescents aged to 11-13 years old were segregated in one control group (30 participants) and study group (by 40 participants corresponding to each emotion studied). A sequence of a movie were proposed to five groups of

participants, which had induced emotional state. Then, they had to complete a French version of the differential emotions scale

Results of research. Finally, they had to listen to specific music to maintain their emotional state and complete three tasks of reasoning: inductive, deductive and probabilistic. Results should highlight a differential effect of emotional state on three tasks of reasoning.

Conclusions. While reasoning based on the heuristic system is found in positive emotional states, negative emotional states cannot be associated to only one system of reasoning. Depending on the negative emotion (anxiety, anger, sadness) the type of reasoning used could be different.

Mamasuieva L., Akhalaya E.

EARLY MANIFESTATIONS OF NERVOUS SYSTEM'S DAMAGE OF ATHEROSCLEROSIS` PREDICTORS

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Introduction. Cerebral atherosclerosis – it`s a disease that caused by the formation of atherosclerotic plaques in the vessels of the brain and threatens the progression of stroke. This ailment is very insidious because the person does not feel serious symptoms at the beginning of a disease.

Materials

and methods. The objective of the study: to identify the initial symptoms of nervous system`s damage of atherosclerosis` predictors. 112 individuals who were classified as predictors of atherosclerosis have been investigated. The first group - men and women whose increased level of lipids in the blood (dyslipoproteinemia) in preventive examinations was found. The second group - teenagers between 14 and 21 years with burdened heredity for cardiovascular diseases (whose parents had a stroke or myocardial infarction at the age of 45 years). The study has been conducted on the overall program: extended medical history, genealogical research, physical examination, ECG, computer`s EEG, REG, ECHO-EG, evaluation of autonomic nervous system function, psychoemotional state, the study of blood lipids level and so on.

Results

of research. The most common symptom-complexes that occurred throughout the study are the following: asthenic syndrome (general increased fatigue, irritability, insomnia and bad mood), syndrome of vegetative-vascular dystonia both paroxysmal and permanent type (headache, cardialgia and cardiac arrhythmias, dyspnea and so on), dyscirculatory encephalopathy syndrome (pyramidal and vertebrobasilar insufficiency).

Diffuse changes of different severity with elements of paroxysmal activity during data analysis EEG have been observed (decrease in the amplitude of the rhythms of the brain, its disruption, presence of biotemporal hypersynchronous bursts, alignment of zone differences, prevalence of low amplitude β -rhythm, single occurrence of slow waves). High blood pressure in arteries mainly medium and small caliber, symptoms of complications of venous outflow mainly in vertebrobasilar pool have been observed at REG.

Conclusions. Thus, the earliest survey of persons with an increased risk of atherosclerosis can detect initial changes in the nervous system and treat them successfully.

Melamud K.

EMOTIONAL DISORDERS IN PATIENTS WITH ARTERIAL HYPERTENSION

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Introduction. Emotional mental disorders are common in patients with hypertension. According to various studies, 30 to 40% of patients with hypertension have nonpsychotic disorders of varying severity. Study data daily blood pressure helps to establish a relationship between hypertension and psychopathological disorders that have been reported in these patients. Timely detection of emotional disorders, understanding their dependence on daily blood pressure will use this information to improve treatment and quality of life of patients.

Materials and methods. We have examined 57 patients diagnosed with hypertension at the Educational-scientific medical complex "University Clinic" Kharkiv National Medical University. The control group consisted of 28 healthy individuals of similar age characteristics. We used the following methods: clinical and psychopathological research; psychodiagnostic study (hospital anxiety and depression scale (HADS, 1983), symptomatic questionnaire SCL-90-R, TAS-26; Instrumental (study of daily monitoring of blood pressure using ABPM-50); methods of mathematical statistics.

Results of research. According to the evaluation using HADS, 57 patients with hypertension, manifestations of anxiety and depression were presented in 46 patients (80.7%), 4 of them (7%) - symptomatic disorders. 10 patients of the control group (35.7%) had signs of anxiety and depression, not exceeding subclinical level. Assessing patients experimental and control groups using clinical-psychopathological method, emotional disorders were founded in 49% of the experimental group and 25 controls. Structure disorders as follows: patients with hypertension in the first place was a depressive syndrome (36%), neurotic (29%), anxiety (21%), hypochondria (14%). Neurotic syndrome was the leading (47%) patients in the control, then hypochondria (31%) and depression (22%) syndromes. The manifestations of alexithymia were observed in 43.9% of the experimental group and in 10.7% of the control. Absolute values of blood pressure and increase individual did not correlate with the development of mental disorders in patients. Depending on the characteristics of daily index among patients with hypertension were more common patterns «Nondipping» and «Night-peaker». Also observed a significant increase in manifestations of somatization, anxiety, depression with increasing daily index values.

Conclusions. Non-psychotic disorder emotional sphere (neurotic, depressive, hypochondria, anxiety syndromes) are often found in patients with hypertension. These daily dynamics of blood pressure have a great influence to the mental disorders in patients. There were found that blood pressure variability indices, such as the daily index substantially affect the presence of psychopathological symptoms. Features of patterns «nondipper» and «night-peaker» were associated with a high incidence of somatisation disorders with symptoms of fatigue, anxiety, depression, hypochondria. Mean values, absolute numbers of blood pressure, increasing the individual does not affect significantly to the development of emotional disorders.

Mohamad S.

SOMATOGENIC DEPRESSION AND ASSOCIATED DISORDERS AMONG PATIENTS WITH CARDIOVASCULAR DISEASES

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Introduction. Background. The problem of cardiovascular diseases takes a special place in the range of psychosomatic pathologies. It is connected with their significant incidence, also in productive age, high mortality and disability rates. Every year cardiovascular diseases caused 4300000 deaths in Europe, in particular, there are more than 2 million fatal cases in the European Union.

Materials and methods. The study included 60 patients, examination of the patients was carried out in four stages: Stage 1 - within 28 days after MI (acute phase), Stage 2 - 3 months after the event (subacute phase), Stage 3 - 6 months after the event (the recovery period), Stage 4 - 1 year after the event (consequences period). Throughout the period of the survey on the background of basic therapy patients have received psychotherapeutic correction and psychological support. The methods that were selected for the study are: clinical methods, psycho-diagnostical methods (Hamilton scale of depression (HDRS), Beck scale of depression (BDS), Spylberger scale of personal and reactive anxiety, Mini-Mental State Examination (MMSE), quality of life test (Mezzich I., Cohen N., Ruiperez M., Lin I., and Yoon G., 1999), statistical methods.

Results of research. The obtained results demonstrated that the most frequent syndromes in MI patients in the acute phase were: pain (86,7 %), phobic (83,3 %), asthenic-anxious (43,3 %) syndromes. Asthenic symptoms in this group of patients were part of the asthenic-anxiety, asthenia, depression (16,7 %), asthenic-hypochondriac (10,0 %) syndromes. Hysteria syndrome and cognitive deficits were observed in 6,7 % of cases. In 13,3 % of MI patients anosognostical attitude to the disease manifested as appropriate response impairment, denying hospital admission and treatment, decrease in critical assessments of their own state, complete disregard as to the severity of their condition. Disorders of consciousness in their superficial form, obnubilation, were observed in 6,7 % of patients.

During the second stage of our research the MI patients demonstrated a decrease in pain (50,0 %), phobic (40,0 %) and asthenic - anxiety (33,3 %) syndromes. On the contrary, incidence and

severity of asthenic-depressive (26,7 %), hysterophorm (10,0 %) and asthenic-hypochondriac (10,0 %) syndromes increased. The number of patients with cognitive impairments (10,0 %) and anosognostical attitude to the disease (16,7 %) increased as well.

During the third stage the most frequent syndromes were asthenic-depressive (33,3 %), pain (30,0 %) syndromes, anosognostical attitude to the disease (23,3 %). Asthenic-anxiety (23,3 %) and phobic (13,3 %) syndromes were also frequently diagnosed in MI patients but their intensity decreased. The incidence of cognitive impairments (13,3 %) increased, especially in depressed patients.

During the fourth stage of our research the incidence and severity of psychopathological syndromes decreased after psychotherapeutic support. Thus, pain syndrome was observed in 23,3 % of cases, asthenic-depressive syndrome in 21,7 % of cases, asthenic-anxiety syndrome in 13,3 % of cases, phobic syndrome in 10,0 % of cases and attitude to the disease in 16,7 % of cases. The incidence of cognitive impairment (10,0 %), hysteroform (10,0 %) and asthenic-hypochondriac (6,7 %) syndromes remained on the same level.

Conclusions.

1. The main conclusion of our research is that among MI patients in acute period the pain syndrome is the main one, leads to severe psycho-emotional disorders. Against the background of cognitive function preservation phobic, anxiety and depressive symptoms prevail, their intensity depends on the severity of pain.

2. The proposed system demonstrated a significant improvement in 80 % of MI patients and 77 % of CS patients, a partial improvement in 10 % of MI patients and in 13 % of CS patients.

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PECULIARITIES OF PTSD IN THE PRESENCE AND ABSENCE OF ALCOHOL ADDICTION

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Introduction. World statistics show that one of five veterans has mental disorders, more than half of them - adaptation disorders. Every day grows the number of Ukrainian soldiers that return from the area of anti-terrorist operation in the east with post-traumatic stress disorder. The clinical picture of this disease can vary under the influence of various factors that will affect the future treatment plan. Objective: To investigate features of PTSD with alcohol addiction.

Materials and methods. We explore patients of psychiatric department of the Military Medical Center of the North Region. 26 people with post traumatic stress disorder F43.1. Sixteen of them suffered from alcohol addiction, so we formed two groups: group A with alcohol addiction syndrome, group B without alcohol addiction syndrome. For this study we used the following methods: clinic-psychopathology, which included interviews and observations, clinical- anamnestic, psycho-diagnostic that included diagnostic method of socio-psychological adaptation of Rogers and Diamond, Mississippi scale of post-traumatic stress disorder, quality of life assessment

questionnaire SF- 36.

Results

of research. In group A 80% had psychological discomfort on a scale of quality of life, and 50% had physical discomfort. Mostly in the aspects of vitality and role functioning. Internal control reducing on scale of social and psychological adaptation was noted in 50% of probationers, emotional discomfort in 100%, reduced desire to dominate in 83%, escapism and self aversion in 17%. The group B increased psychological discomfort was observed in 60%, physical in 80%. The highest was the index of pain. Reducing adaptation was observed in 40% of cases, the self aversion in 60%, emotional discomfort in 20%, reduced desire to dominate 20%, rejection of the other 40%, escapism in 20%.

Conclusions.

Our results show that PTSD patients with low levels of psychological comfort, reduced vitality and role functioning often suffer from alcohol addiction. Also in this group is reduced desire for dominance and reduced internal control. It shows the necessity of comprehensive approach and selection of individual methods depending on the characteristics of the patient in PTSD treatment.

Olawole O.

TACKLING THE INCREASING INCIDENCE OF HAEMORRHAGIC STROKE

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Introduction. Until recently awareness on issues of stroke, their etiological factors, and factors leading to death have surfaced. Research is increasing to study the pathology of stroke in the African population. For the purpose of this literature, highlights on increasing incidence of Haemorrhagic stroke in African countries most especially within the working population will be addressed, various risk factors of haemorrhagic stroke development, and issues with effective diagnosis and treatment will be addressed.

Materials and methods. In this study, the prevalence of hemorrhagic stroke in the African population was studied via past literature works and hospital studies across Africa. The changes in incidence and prevalence of hemorrhagic stroke in Africa over the decades were assessed, the risk factors and causes of increasing haemorrhagic stroke prevalence in Africa were accessed. and the issues concerning prevention, early and proper diagnosis and treatment were also reported

Results of research. It was seen that though over the decades world prevalence of haemorrhagic stroke had defined and plateaued, this has not been the case in Africa, instead a rise in stroke incidence has been detected. Several risk factors to increasing stroke prevalence in Africa include age, sex, diet rich in sodium, low in whole grains , fruits and vegetable, high systolic BP, air pollution due to solid fuel combustion,

high BMI, low GFR, tobacco smoking, lead exposure, high fasting glucose, alcohol and drug abuse.

Conclusions. Haemorrhagic stroke though is declining worldwide, is having a rise in incidence

in African population, more attention should be paid to this rise, and adequate measures of intervention must be implemented to curb the rise, and bring about a decline in stroke incidence.

Shapoval V.

PSYCHOLOGICAL PRESSURE AND ITS CONSEQUENCES IN YOUNG WOMEN

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Introduction. The modern Internet is filled with interesting content and all teenagers are very enthusiastically "surfing" the network. But how safe are social networks for the young psyche? One of the dangers of the Internet is the presence in social networks of groups of people who lure young girls intimate photos, and then blackmailing them with these photos provoke to different, obscene actions. Actually, this is a psychotraumatic event, and can entail the development of depressive and anxiety-phobic disorders which, as a consequence, lead to disadaptation of a person in society. According to literary data, in Ukraine, 7.86% of women during life suffer from anxiety disorders, and 20.78% of women also, during a lifetime, have affective disorders such as recurrent depression and dysthymia (according to the WMH-WHO version of the CIDI-interview). Most of these disorders occur in adolescence and young age, this fact is important for this scientific study. Therefore, the goal of this work is: to study the influence of psychological pressure in the network, on the occurrence of depressive and anxious-phobic disorders in adolescent girls and young women, to clarify the relationship, the occurrence of the above disorders, with the level of suggestibility of the affected girls.

Materials and methods. 16 women aged 16 to 20 years were evaluated. The first group included 8 girls who did not have a sad experience of communication on the Internet, and do not have complaints about mental health. The second group - 8 girls, suffered from psychological pressure in the network, and at the time of the beginning of the study have subjective complaints about mental health. The survey included: a hospital anxiety and depression scale (HADS) survey, a Beck depression scale, a Shihan anxiety scale, a suggestibility test Barbera.

Results of research. According to the hospital scale (HADS), in the first group-12.5% of the respondents have subclinical anxiety. 25% of the respondents had symptoms of subclinical depression. In the second group, the indices are 12.5% with clinically expressed anxiety, 37.5% with subclinical anxiety, and 37.5% with subclinical depression. According to these data, anxiety disorder, in girls of the second group - 4 times more often occurs and proceeds in the form of subclinical and clinical anxiety. And the symptoms of subclinical depression, occur in the second group 1.5 times more

often than in the first. In the Barber's suggestibility test, the indicators were as follows: 62.5% had a high suggestiveness, 25% average, and 12.5% low. In the control group, 37.5% of the individuals had a high score, 37.5% had an average, and 25% had a low level of suggestion. The Beck scale survey showed the following data: 25% of girls, the first group with mild depression, and in the second group - 37.5% of those surveyed had an easy degree of depression and 12.5% had an average degree of depressive symptoms. Based on the data of the Bek's survey, it is noticeable that depression in the group is being investigated, occurs more often 2-fold than in the control group. As for the Shihan anxiety scale, in the control group - 12.5% of the respondents have a clinically expressed anxiety. And in the main group, the indicator of clinical anxiety was 37.5% of girls. That is 3 times higher than the frequency of the occurrence of anxiety disorders in individuals who are examined over a relatively healthy group. Barber's test, in turn, showed that 1.6 times the higher level of suggestion in the affected girls compared to the control group.

Conclusions. Thus, in the group of girls who had psychological pressure in the network, the risk of occurrence of anxiety disorders in 3 times, and depressive - 2 times higher than people, did not encounter similar, trigger factor on the Internet. This is certainly related to the higher level of suggestion of these girls and internal family relationships. Therefore, it is necessary to take measures to identify people with similar problems, to typologize the violations found and provide appropriate psychological and medical assistance to victims of psychological pressure. Actively conduct psychosocial prevention, and raise the level of psychosocial adolescents and young people, to involve in active cooperation the seven victims for successful compliance and successful socialization of a person in society.

Schebetenko V.

THE IMPACT OF STUDENTS' EDUCATIONAL STRESS ON THE DEVELOPMENT OF MIGRAINE

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Introduction. Introduction: Migraine is a wide spread and socially significant disease. In the year 2000 Migraine was included in the list of diseases with significant global importance. Migraine is a more common illness than for instance Asthma and diabetes. Approximately 12% of the population suffer from migraine. The purpose this study is to identify the percentage of students suffering from migraine, and also designate identify key triggers, provoking attacks of headaches and migraine prevention development.

Materials and methods. Materials and Methods used: In this study a questionnaire was conducted among 87 students in 4th year KhNMU, using specially designed questionnaires to identify signs of migraine and for determining the key triggers for migraine disease.

Results of research. Results were calculated using statistical percentage method, the outcome suggests survey of 28 sign of Migraine. By questioning the group, it was

determined, the main aspect triggering headaches are tension and stress (pain often occurs during relaxation), second aspect with high scores is lack of nourishment. Another trigger is sleep disturbances (affecting lack of sleep or sleep more than 8 hours). The data system was designed specifically for students.

Conclusions. Conclusions: Migraine can be seen as a chronic brain disease leading to both significant loss of quality of life and economic losses. During the remainder of this study verified that migraine is quite common among students caused by: stress, sleep patterns and untimely diets. Most important factor being Intensity of stress. Prevention of Headache attacks is quite important, because treatment of Migraine is complex and multifaceted. That is why we developed a system for the prevention of migraines. For students it is important to avoid any stress and conflict in relation to learning, prepare materials in a timely fashion, eat correct, timely and enriched food 5 times a day, and maintain a healthy sleep pattern of 7-8 hours.

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POSTTRAUMATIC STRESS DISORDER: CLINICAL CASE

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Introduction. In the past 3 years there has been a sharp deterioration of the level of mental health of the population in Ukraine, which is connected with the psychotraumatic political situation and active military conflict in the south-east of the country. Long-term stress with a great number of extreme situations, fear of death and loss of relatives, manifestation of aggression and violence - all these are factors provoking the development of posttraumatic stress disorder (PTSD). PTSD occurs in 1 to 6 months after a traumatic event. During this time, the victim returns to normal life and can not adapt to it. The main clinical manifestation is an abnormal reaction to normal everyday situations. Such symptoms of intrusion are observed: repeated anxious memories accompanied by autonomic dysfunctions; sleep disorders, nightmares; «flashbacks». Avoiding similar situations and places, talking about the event, emotional stupor, detachment, irritability and alertness are characteristic. The emergence of such dissociative symptoms is possible: derealization, depersonalization, dissociative amnesia, alienation, emotional deafness.

Materials and methods. Thus, in the presence of a traumatic event in the history and certain symptoms in patients, it is advisable to carry out PTSD screening, for which a standardized questionnaire is used. A positive response to 4 or more questions indicates the possibility of this diagnosis. Also such means are used: a questionnaire form (questionnaire) of the patient about the health status of PHQ-9 and the hospital scale of anxiety and depression (HADS).

Results of research. Psychoeducation takes a major place in the social adaptation of patients with PTSD. A three-stage structure is preferred, which includes studying the information needs of patients and their relatives, collecting of evidential data and creating an informational module, approbation and evaluation of effectiveness. We give our own clinical observation. Patient V., 31 year old, a military man, was

having a treatment from 03.12.15 to 18.12.15. He complained of headache, whistling in his ears, insomnia, fear of loud noises and "the noise of an approaching car", a sense of danger, memory loss, hearing and vision impairment. Mental state: has clear consciousness, is correctly oriented, is accessible to verbal contact. Mimicry is inexpressive and tense; movements are bound, with motor tics. Periodically, during a conversation, he closes his ears with his hands and pauses, explaining this with a "strong whistle in his ears." He answers the questions laconically, hides the emotions. The mood is closer to steady. He is emotionally constrained, inexpressive. Thinking is consistent, the pace is lowered. Hallucinations and crazy ideas are absent. Attention is weakened. Criticism is reduced.

Conclusions. The patient performed such tests: a civilian version of the Mississippian scale of the post-traumatic stress event, DSM-V, SCL-90-R, the result - 116 points, which indicates a high level of influence of the traumatic event and confirms the PTSD diagnosis. The DSM-V scale allows estimating the frequency and intensity of revealing individual symptoms of the disorder, as well as the degree of their influence on the patient's social activity. According to the results, the patient has symptoms of intrusion - 4/5, symptoms of avoidance - 1/2, cognitive impairment - 4/7, hyperactivation - 3/6, an expressed distress is marked in the patient: a violation in social functioning and professional activity. According to the SCL-90-R scale, the dominant symptoms are somatization, depression and obsession.

Svetlichnaya K.

TREATMENT OF POSTALCOHOL CHANGES IN THE NERVOUS SYSTEM

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Introduction. Alcoholism is a chronic disease that is characterized by the combination of somatic and mental disorders caused by the frequent use of alcoholic beverages. Theme related to alcoholism, extremely relevant in our country, because according to WHO in Ukraine from chronic alcoholism suffers about 900 thousand man. Every year this indicator increased by 50-55 thousand patients.

Materials and methods. The experiment on animals was the action of ethanol on the frontal area of the cortex, in consequence of that revealed the oppression of cognitive functions.

Results

of research. The experiment on animals was the action of ethanol on the frontal area of the cortex, in consequence of that revealed the oppression of cognitive functions. Animals have ceased to perform advance memorized actions. After a 10-day break, previously identified defects are gone. This confirms that violation of cognitive function and short-term arises at the moment of withdrawal.

Currently, the proven versatility of mechanisms of damage of cells in various kinds of pathological processes, including the effects of ethanol. The final link is a violation of the redox processes, metabolism and energy cells. In this regard, one of the widely used today is a drug neuroprotectors Cerakson.

We investigated the effects of citikolin at 8 patients with alcoholic encephalopathy. All the

patients had cognitive impairment- 3-e, and 5 -light on the scale of MMSE. After 2 months of taking the drug noted an improvement in concentration, memory, thinking, as well as orientation in space and time. While therapy citikolin managed not only to improve cognitive function, and reduce the dose of the substitutive therapy. In this situation, patients decreased craving for alcohol.

Conclusions.

On the basis of data on the impact of ethanol on the nervous system, neuroprotektive Cerakson drug therapy may become an alternative in the treatment of postakohol changes in the central nervous system, such as encephalopathy with varying degrees of cognitive impairment.

Symkina V., Kauk O.

BREATH-HOLDING SPELLS IN THE STRUCTURE OF PAROXISMAL STATES IN YOUNG CHILDREN

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Introduction. The study of convulsive paroxysmal states in young children is an urgent problem of modern pediatrics and pediatric neurology. The harmonious psychomotor development of a child, as well as his/her social adaptation depend on early diagnostics and correction of these states. The convulsive paroxysmal states in young children include the following: febrile convulsions, spasmophilia, toxic seizures, breath-holding spells and epileptic syndromes.

Materials and methods. The research was conducted on the basis of the Communal Health Protection Institution "Kharkiv Children's Polyclinic № 15" in the period from 2015 to 2017. The research group included 106 children aged 3 to 5 years (54 boys and 52 girls) with various convulsive paroxysmal states. All children underwent a complete somatic and neurological examination, psychological testing and registration of bioelectrical activity of the brain (BAB) with the help of EEG on the 19-channel software and hardware complex DXNT-32.

Results of research. Communal Health Protection Institution "Kharkiv city children's polyclinic № 15" provides service for 14560-14687 children. There are 106 children with convulsive paroxysmal states, who are subject to regular medical check-up, that constitutes 0.7% of all children. Among them, 54 children (50.9%) had different forms of epilepsy and epileptic syndromes, 27 children (25.5%) had breath-holding spells, 18 children (17%) had febrile convulsions, 6 children (5.7%) - spasmophilia and 1 case (0.9%) - toxic seizures.

Among the breath-holding spells it was the "blue" type which predominated (in 63.4% of cases), characterized by intermittent deep breathing stopping at inspiration with the appearance of cyanosis of the skin, a sharp decrease of muscle tone or the appearance of tonic muscle tension with the child arching his/her back.

"White" type breath-holding spells was noted in 36.6% of cases, which most often was a reaction to pain when falling or pricking, it was characterized by a sharp blanching of the skin, a weak pulse and low blood pressure.

At EEG examination the normal BAB was registered only in 3 children (11.1%), in 44.4% of cases (12 children) BAB nonspecific changes were recorded, representing a slowing of the baseline rhythm to 6-8 Hz, an excessive slow activity and the so-called "hypersynchronous" type of activity with an average activity amplitude in the theta and / or alpha range of more than 150 μ V. In 11 children (40.7%) EEG showed focal epileptic activity in the form of acute wave complexes, more often in the parietal-temporal regions. In 1 child (2.2%) in the waking state, short discharges of generalized bilateral-synchronous "spike and-wave" complexes were recorded. The registration of epileptic phenomena on the EEG was not accompanied in any case by clinically obvious attacks.

Conclusions. The breath-holding spells take the second place in the frequency of occurrence among convulsive paroxysmal states after epilepsy. The "blue type" prevails in most cases. The EEG examination often reveals epileptiform phenomena, which can indicate a decrease in the level of GHB-ergic amino acids. The obtained data should be taken into account when carrying out pathogenetic therapy in children with breath-holding spells.

Timoshchuk M.

WOMAN'S SOCIAL STOCKHOLM SYNDROME

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Introduction. Official statistics of the Ministry of Internal Affairs of Ukraine shows increasing of facts of domestic violence - from 110,000 cases to 165,000 for last five years. However, according to The Program of Equal Opportunities and Women's Rights in Ukraine, 75% of women who have been subjected to domestic violence do not seek help and continue to have relationships, trying to justify the offender in every possible way.

The purpose of the research was study of the causes of this behavior.

Materials and methods. An anonymous Internet questionnaire was conducted among 52 women who were subjected to violence by their husbands or sexual partners, 37 of whom experienced physical, psychological or sexual violence repeatedly, without asking for help for a long time.

Results of research. An anonymous Internet questionnaire was conducted among 52 women who were subjected to violence by their husbands or sexual partners, 37 of whom experienced physical, psychological or sexual violence repeatedly, without asking for help for a long time. It was found that these women were prone to exaggerate the positive traits of the character of the rapist, to deny their own negative emotions, to take on themselves the blame for the violence, to take the rapist's views on the world around and on himself, to self-abasement, and also are confident in their strong feelings for the aggressor and Inability to live without it. This behavior allows us to talk about traumatic attachment - the social Stockholm syndrome. The classical Stockholm syndrome is understood as the presence of positive feelings among hostages in relation to their captors, who develop during captivity. The everyday Stockholm syndrome is

expressed in the protection connection of the victim with his aggressor, arising in a traumatic environment and in conditions of limited access to external stimuli. The social Stockholm syndrome arises as an attempt of the victim to protect his own mental integrity and restore the physiological and behavioral homeostasis. In an attempt to avoid and / or reduce the effect of violence, the victim identifies with the aggressor and justifies himself and others with all his actions.

Conclusions. In the case of gender-based violence, a woman uses the mechanisms of survival day after day for a long time and gradually they transform her personality and become a way of her existence. Therefore, it is not so much about adapting to the personality of the aggressor, it is about the loss of a victim's own identity. And this means not an adaptive mechanism, but a real process of destruction.

Tregubenko A.

FEATURES OF THE MANIFESTATION OF ANXIETY IN STUDENTS OF JUNIOR COURSES

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Introduction. The interest to the study of the features of adjustment disorders in students of medical universities is caused by the fact that education is accompanied with information and emotional stress, considerable mental and physical tension. Research objective: to investigate indicators of fear and anxiety in third-year medical students with the subsequent identification of the risk groups and performing prevention of disadaptation.

Materials

and methods. The survey among the third-year students of Kharkiv National Medical University was carried out. There were 20 women at the age of 19-22 years and 19 men at the age of 19-20 years. The following methods were used: determination of the level of anxiety using the personal questionnaire of Spilberger – Khanin; questionnaire “The hierarchical structure of the topical fears of personality” by Yu. Shcherbatykh and E. Ivleva.

Results of research.

Study data showed, that anxiety level, as well as integrated indices of fear, does not meet the standard. So, 73,68% of respondents by means of a questionnaire Spilbergera – Khanin, characterized by increased the level of anxiety. Furthermore, the dominating type is a personal type of anxiety which characterized by 50% of testees in which 60% of women and 40% of men. Intensity of fears in men was higher (integral index of fear 98,29 at the rate of 77,9+-4,7), at the same time women have a lower index (99,4 at the rate of 104,0+-2,5). The fear of disease of relatives was dominating, admit it 28,2% of all interviewed students.

Further study of structure of fears determined the increase of intensity of separate fears in comparison with indices in similar age group. So, the most expressed were the fears of responsibility, height, public speech, and also the fear before exams. Besides, the higher level of fear of war and poverty is typical for men, and the fear of the bosses - for women.

Conclusions. As the result, it is possible to make a conclusion that medical students doing their the third-year have the raised index of fear and anxiety and it is caused by the raised study load.

Consequently, we can recommend well-minded labour routine and rest, doing sports, and carrying out psychotherapeutic work to decrease an emotional susceptibility of students.

Yuntsova K.

CLINIC OF HALLUCINATORY-PARANOID SYNDROME

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Introduction. As known, all kinds of childhood mental pathology are expressed in the form of distorted development, dysontogenesis or accompanied by similar manifestations. In addition, mental disorders are characterized by rudimentary, low differentiated symptomatology due to immaturity of mental functions and all morphofunctional systems of the brain [Tsirkin S.Yu., 1999]. Early manifestation of childhood schizophrenia is accompanied by social disadaptation. Until now, the issues of treatment, psychocorrection, rehabilitation and adaptation of children in schizophrenia require development, that is possible on the basis of studying psychopathological and pathopsychological disorders. All this determines the priority of studying mental disorders with the specified forms of pathology in the age aspect. The aim of the research was to study the clinical manifestations of hallucinatory-paranoid syndrome of children with schizophrenia. Object of the study: mental and behavioral disorders in children's endogenous process. Research methods: clinical-psychopathological, methods of mathematical statistics.

Materials and methods. Materials and methods: The study included 26 children examined from 5 to 12 years of age with a diagnosis of schizophrenia, a children's type.

Results of research. Among them, 5 children (19.2%) had hallucinatory-paranoid syndrome that was dominant in the clinical picture. All examined had mental and behavioral disorders. The productive symptomatology of the hallucinatory-paranoid syndrome was represented by delusion fantasies of different contents, with a predominance of reincarnation, a variety of sensostatic sensations, the appearance of which patients associates with the influence of external factors, aural, visual, olfactory and visceral deceptions of perception. The subjects of this group were in motor excitation, attention was drawn for a short time, and was exhausted. Children talked colorfully about their experiences, and general questions were answered with absurd answers or did not answer at all. The emotional background dissociated with the facial expressions of the patients, the emotionally significant experiences for the child were accompanied by hypomyia and alienation in the conversation. The emotional background dissociated with the facial expressions of the patients, the emotionally significant experiences for the child were accompanied by hypomyia and alienation in the conversation.

Conclusions. In this way, as a result of clinical and psychopathological research, 19.2% of children diagnosed with schizophrenia, the hallucinatory-paranoid syndrome is the leading and require psychopharmacotherapeutic correction.

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MECHANISMS OF THE SUICIDAL BEHAVIOR FORMATION IN YOUNG PEOPLE WITH DEPRESSION

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Introduction. The progressive increase of cases of suicides in the world needs to be studied in terms of its pathogenesis as the most topical problem of scientific researches. A person suffering from depression is 35 times more likely to commit suicide than a healthy individual (from 45 to 60% of all suicides in the world make depressed patients).

Aim. The aim of our study was to investigate the basic mechanisms of formation of suicidal behavior in young patients with psychogenic depression.

Materials and methods. We have carried out a comprehensive survey of 96 patients of both sexes, aged 18 - 35 years with depressive disorders (F41.2, F43.21), with various forms of suicidal behavior. The control group consisted of 40 patients with similar forms of pathology at the age of 18 - 35 years without any signs of suicidal behavior. We used the following methods: clinical, psychopathological, clinical and anamnestic, psychodiagnostic, determination of serotonin and melatonin in the blood, the study of gene polymorphism and LRRTM4 and ACP1.

Results of research. Analyzing the metabolic abnormalities in the biogenic amine groups belonging to different nosological manifestations and varying the intensity of the depression we determined that both group of patients characterized by specific symptoms. Patients with suicidal behavior, which was caused by an acute reaction to stress, there was a decrease in the excretion of adrenaline and noradrenaline night period during the day. Enhancement of serotonin and melatonin decrease blood concentration in this group was less pronounced in comparison with others. In individuals with high result values on the Hamilton scale of depression and other depression scales to determine shown the greatest increase in the concentration of serotonin in the blood and the lowest levels of melatonin in the blood plasma.

Conclusions. Obtained data allowed us to develop a comprehensive system of pathogenetically substantiated correction of suicidal behavior within the acute stress response, including the combined use of pharmacological and psychotherapeutic influence, as well as psychoeducational programs.



INFECTIOUS DISEASES



INTERNATIONAL SCIENTIFIC
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Abdullaieva S., Qasanova A., Tkachenko V.

PROBLEMS OF STIGMATIZATION OF HIV-INFECTED PEOPLE: PRELIMINARY RESULTS OF SURVEY AMONG STUDENTS OF KHNMU

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Introduction. According to the results of the Ministry of Health, there are more than 300 thousand people with HIV infection in Ukraine and only one in every two knows about their diagnosis. To date, despite the ongoing activities that contribute to educating the population about HIV, the level of stigmatization of HIV-positive people remains high. Stigma leads to the violation of human rights, which affects the spread of infection and the welfare of people with positive HIV status in an adverse way. In all countries of the world, there are many cases of denial of access to medical services for people with positive HIV status. The purpose of our study is to determine among students of a medical university the attitude and the level of tolerance toward HIV-positive people.

Materials and methods. We created and conducted a questionnaire among 61 5-year students (48 female students and 13 male students).

Results of research. In the course of the study, the following results were obtained: 65.6% of respondents believe that it is possible to live fully with HIV infection, and 34.4% believe that it is impossible. 95.1% said they would continue to communicate with a friend or neighbor if s/he turns out to be HIV-positive, and 4.9% would stop talking. Only 39.3% believe that a doctor who has a positive HIV status has the right to continue to take patients and perform medical manipulations, 60.7% believe the opposite. 37.7% would allow their child to play with a child with a positive HIV status, and 62.3% would prohibit. Respondents were offered a condition in which they present themselves as a dentist who is approached by a patient with a positive HIV status for medical help. 88.5% answered that they would continue treatment of the patient, 8.2% would prefer to come up with an excuse, and 3.3% would directly deny the medical care for the patient. 16.4% of respondents believe that HIV-positive people should be isolated from society, and 83.6% choose the opposite option.

Conclusions. Based on the results of the questionnaire it was found out that, despite the knowledge of students of the medical university about HIV infection, the level of stigmatization and intolerant attitude remain high.

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THE FEATURES OF HORMONE AND LIPID BALANCE IN PATIENTS WITH CHRONIC HEPATITIS C

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Introduction. Hepatitis C virus (HCV) is characterized by wide distribution and ability to cause health disorders of the working population, thus causing significant morbidity

and mortality worldwide. HCV-infection is one of the major risk factors for metabolic disorders. The literature data about the features of the hormone balance of blood on the background of chronic hepatitis C, relationships between level of sexual hormones and lipid spectrum to date are insufficient.

Materials and methods. The content of hormone and lipid metabolism was determined in 33 patients with chronic hepatitis C. From them men 27 (81,8%), women 6 (18,2%). Middle age of patients was $39,27 \pm 1,53$. The comparison group consisted of 30 healthy subjects who were matched for age and sex with the patients of the studied groups. The study of hormone metabolism of blood (Progesterone, Testosterone, Estradiol) was carried out by the enzyme-linked immunosorbent assay. The study of lipid metabolism of blood (total cholesterol (TC), triglyceride, High-density lipoproteins (HDL), Low density lipoproteins (LDL)) was carried out by the enzymatically-photometric method from the central scientifically-research laboratory of Kharkiv National Medical University. The content of Very low density lipoproteins (VLDL) in blood serum was determined by the formula: $VLDL = TG/5$. Statistical analysis was performed using the software package «Statistica for Windows», 8.0

Results of research. Study on the work carried out at the Department of Infectious Diseases of Kharkiv National Medical University, located at the Regional Clinical Hospital of Infectious Diseases of Kharkiv. Indexes of hormone and lipid balance in patients with chronic hepatitis C had significant difference with that of the control group in patients. Significant reduction Progesterone ($p < 0,05$), Testosterone ($p < 0,001$), Estradiol ($p < 0,01$) in serum of women and significant increase Progesterone ($p < 0,001$) in serum of men were observed. The results obtained reveal a violation of the state of lipid profile in patients with chronic hepatitis C, especially in women. In the patients studied, compared to the control group, there was a significant increase of triglyceride ($p < 0,001$), LDL ($p < 0,001$), VLDL ($p < 0,001$) and reduction HDL ($p < 0,001$). And TC levels had no significant difference with the control group parameters.

Conclusions. There is strong relationship between sexual hormones and indexes of lipid balance in patients with chronic hepatitis C. In carrying out the correlation analysis in patients with chronic hepatitis C, moderate direct relationships between the level of Estradiol and tryglyceride, Estradiol and VLDL, Testosterone and TC, Testosterone and LDL ($r = -0,34$; $p < 0,05$) was established.

Elhaj Abeer

LABORATORY DIAGNOSIS OF IXODID TICK-BORNE BORRELIOSIS

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Introduction. According to the level of morbidity among all tick-borne infections ixodid tick-borne borreliosis (ITBB) occupies the first place. The disease is characterized by polymorphosis of clinical signs and often tends to recur and become chronic, so it is called a “great imitator”. The process of diagnosis involves doctors of multiple specialties. Laboratory diagnosis plays a leading and sometimes the most

important role in establishing diagnosis. Objective – improving laboratory diagnosis of ITBB by means of implementation of modern immunological and molecular genetic methods of research.

Materials and methods. Bacterioscopy of swab of tick hemolymph; immunoenzymatic analysis (IEA) and the method of immune blotting (IB); polymerase chain reaction (PCR).

Results of research. The elaborated diagnostic approaches are based on the results of the research in cooperation with the Laboratory of New and Poorly Studied Infections of the University of Microbiology and Immunology named after Mechnikov I.I. of NAMS of Ukraine. The method of choice for solving the issue of the presence of *Borrelia* in the tick, is bacterioscopy of the live tick hemolymph. The perspective methods for direct detection of antigens in the tick are IEA, as well as PCR, which allows to study the ticks, which are already full, dry, their fragments and allows to elicit the genotype of the germ. In case there is a tick bite and development of classic migratory erythema in the medical history (not more than 15-30% of patients), the laboratory diagnosis is not effective - clinical diagnosis, which does not need medical evidence, is established. In other cases a two-stage approach to serum diagnosis is recommended. I stage: blood test by means of high-sensitivity IEA method (not earlier than the 3d week from the moment of getting infected); in case of negative result in order to exclude the deferred immunological reaction on the early stage of ITBB a recurrent analysis is carried out in 3-4 weeks. Although, the early period may be seronegative due to inhibition of the immune system by *Borrelia* in 20-30% of patients. The use of PCR may allow to avoid false results and significantly complement the diagnosis of ITBB on the early stage before seroconversion, provided there are systemic symptoms and signs. However, as the negative result can not be considered as an indicator of absence of *Borrelia*, the exclusive use of this method is not recommended for routine practice. Due to possibility of false positive results, observed in some spirochetoses (leptospirosis, syphilis, etc.), helicobacteriosis, as well as autoimmune diseases (rheumatoid arthritis, multiple sclerosis, etc.) and EBV persistence (as a result of polyclonal stimulation of B-cells), IEA diagnosis confirmation and execution of the II stage are required. In positive or doubtful IEA, blood test is carried out by a highly-specific method IB; in case of doubtful result the IB is carried out in 3-4 weeks. In case the disease lasts longer than 4-6 weeks and negative IB in IgG the presence of ITBB is less probable, even in positive IB in IgM (false positive test). The spectrum of antibodies grows with the disease duration, and the frequency of antibodies detection significantly grows in systemic manifestations of disease. According to the results of IB, analyzing the spectrum of specific antibodies to the specific *Borrelia* proteins, one can determine the stage of disease, as well as reinfection and relapse. CDC recommends universal positive test criteria in IgM (meaningful only within the first 4 weeks of ITBB): presence of at least 2 out of 3 diagnosis lines of specific antibodies to the specific *Borrelia* proteins (24 kDa - OspC, 39 kDa - BmpA and 41 kDa - Fla); in IgG: 5 out of 10 (18 kDa, 21 kDa - OspC, 28 kDa, 30 kDa, 39 kDa - BmpA, 41 kDa - Fla, 45 kDa, 58 kDa, 66 kDa i 93 kDa). However, the use of these criteria is not always justified in Eurasia. The main reason is in the strain heterogeneity of the germ, circulating in Eurasia (*B. afzelii*, *B. burgdorferi* s.s. i *B. garinii*), which needs an individual approach in each specific case.

Conclusions. There isn't a single optimal method of ITBB diagnosis. The tests used should be logically combined in order to achieve the maximum possible diagnosis effectiveness, taking into account the seroconversion, immune status of the patient, stage of disease and specific features of the clinical presentation.

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ROUTES OF TRANSMISSION OF HIV IN EUROPEAN WHO REGION AND UKRAINE

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Introduction. In accordance with world data it is known that 40-50% adults which were infected with human immunodeficiency virus (HIV) in 2015 belong to high risk groups: men who have sex with men (MSM), people who inject drugs (PWID), sex workers (SWs). These groups of risk are strongly connected with the main transmission modes: sex between men, heterosexual contact, drug injection. Knowing of these routes could help us to make preventing programs more effective. Investigation the main routes of HIV transmission in European WHO region and Ukraine was our aim.

Materials and methods. Ukrainian Center for Socially Dangerous Disease Control of the Ministry of Health of Ukraine bulletins, World Health Organization (WHO) data were used.

Results of research. According to the WHO data 153407 people were newly infected in European WHO region in 2015, 77% out of which were registered in the east of region (47.5 per 100000 population), 19% - in the west (6.3 per 100000 population) and only 3% - in the central part of the region (2.8 per 100000 population). The most affected countries are Ukraine (30.4), Belarus (24.3), Estonia (20.6), Moldova (20.1), Latvia (19.8). Generally, the main route is heterosexual contact. However it differs depending on part of the region. In the East, heterosexual transmission is 65.2%, transmission through injecting drug use - 26.4% and transmission through sex between men is 3.6%. In the Centre, sex between men (29.9%) and heterosexual contact (27.5%) were the main transmission modes and transmission through injecting drug use was 4.4%. In the West, sex between men remained the main transmission mode (43.4%), followed by heterosexual transmission (33.0%) and transmission through injecting drug use was 3.3%. In Ukraine the main transmission mode changed in 2008 from transmission through injecting drug use to transmission through sexual contacts. Transmission through sexual contacts became the main route for women in 2007 and for men in 2013. Now transmission through sexual contacts is 72.5%, through injecting drug use - 26.5%.

Conclusions. Generally the main route of HIV transmission is still heterosexual contact. However the transmission through sex between men is the main in the West of region in economic power countries. Transmission through injecting drug use is the second route in the East and less prevalent in economic power countries. The obtained results showed that there is a need in continuing the educational work in the fields of

HIV transmission among the groups of risk – MSM, PWID, SW. Besides that, there is a need in prevention measures among the population, especially among the youth.

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HAND HYGIENE AMONG MEDICAL STUDENTS IN KHNMU

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Introduction. Practicing hand hygiene is a simple yet effective way to prevent infections. Cleaning hands of medical staff can prevent the spread of germs, including those that are resistant to antibiotics and are becoming difficult, if not impossible, to treat. On average, healthcare providers clean their hands less than half of the times they should. On any given day, about one in 25 hospital patients has at least one healthcare-associated infection. The aim is to assess the awareness and compliance of medical students with hand hygiene.

Materials and methods. A medical students survey of hand hygiene practices was performed in Kharkiv National Medical University (KhNMU) during spring 2017. We are asking medical students of 1-3 courses to complete a short questionnaire "How often they wash their hands". The questionnaire consist of 15 questions.

Results. A total of fifty students were invited to fill the questionnaire. The participating students included twenty-six males and twenty-four females. The average awareness regarding the positive indications of hand hygiene was 51.7% for male students and 62.5% for female students. In our study, 56% of positive indications for hand hygiene outlined in the questionnaire were correctly identified, and 44% students were either unaware or not sure about these moments. This is comparable to the results that have been reported in literature.

Conclusions. Hand hygiene is the most effective method of preventing transmission of infections. The hand hygiene awareness and compliance among the medical students were found to be very low. Multifaceted and dedicated efforts must be undertaken to rectify this attitude and behavior from early on. Medical schools are highly encouraged to modify and enhance their curriculum in order to improve hand hygiene practices among the students. The improved understanding of infection control and hand hygiene among students is expected to play a major role in curbing disease transmission when the students pass out and join the healthcare work force in future.

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MALARIA

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Introduction. Malaria is a mosquito-borne infectious disease affecting humans and other animals caused by parasitic protozoans belonging to the Plasmodium type. The

WHO estimates that in 2015 there were 214 million new cases of malaria resulting in 438,000 deaths. The majority of cases (65%) occur in children under 15 years old. About 125 million pregnant women are at risk of infection each year; in Sub-Saharan Africa, maternal malaria is associated with up to 200,000 estimated infant deaths yearly. Where malaria is found depends mainly on climatic factors such as temperature, humidity, and rainfall. Malaria is transmitted in tropical and subtropical areas, where Anopheles mosquitoes can survive and multiply. Generally, in warmer regions closer to the equator transmission will be more intense. Malaria is transmitted year-round. In cooler regions, transmission will be less intense and more seasonal. There, *P. vivax* might be more prevalent because it is more tolerant of lower ambient temperatures.

Materials and methods. *P. Vivax*, *P. Ovale* can cause relapses for many years after infection - 48 hours, *P. Malaria* 72 hours, *P. falciparum* most dangerous type causes complications i.e. cerebral malaria and black water fever (48 hours). Life Cycle. Female anopheles mosquitoes gets infected after taking a meal containing gametes, development of infective sporozoites. The sporozoites are rapidly taken up in the liver. The infected hepatocytes rupture, releasing merozoites into the blood and they are rapidly taken up by erythrocytes. Inside the erythrocytes the parasites multiply, changing from merozoites, to trophozoites, to schizont and finally appear new merozoites. The erythrocytes rupture and releasing merozoites to infect other cells.

Results of research. Clinical manifestation: 1) uncomplicated malaria - a cold stage (sensation of cold, shivering); a hot stage (fever, headaches, vomiting; seizures in young children); and finally a sweating stage (sweats, return to normal temperature, tiredness. 2) severe/complicated Malaria - cerebral malaria, blackwater fever, severe anemia, hemoglobinuria, acute respiratory distress syndrome (ARDS), abnormalities in blood coagulation, low blood pressure caused by cardiovascular collapse, acute kidney failure, hyperparasitemia, where more than 5% of the red blood cells are infected by malaria parasites, metabolic acidosis, hypoglycemia. Diagnosis is based on: physical examination: icteric skin and mucous membranes, on palpation, painful abdomen and hepatosplenomegaly; laboratory methods: CBC <Hb, <RBcs, <Thrombocytes, reticulocytosis, > glucose levels. Biochemical: > unconjugated bilirubin, > AST, ALT. Microscopic examination; ring form and gametes of *P. falciparum*. The prevention of malaria includes: there is no vaccine against malaria, education, mosquito repellent i.e. picaridin, sleeping under the nets and indoor & outdoor spraying with insecticides, efforts to decrease mosquito larva by decreasing the availability of open water in which they develop.

Conclusions. Malaria is widespread disease in the world. Treatment in time and preventive measures will help to decrease level of morbidity of this dangerous disease.

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THE STATUS OF PARAMETERS OF THE MINERAL METABOLISM IN HIV-INFECTED PEOPLE IN KHARKIV REGION

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Introduction. Ukraine tops the list in the number of registered HIV-infected people and AIDS patients who died from this disease. We are interested in the question of the content of macro- and microelements among the patients who have immunodeficiency, because the content of some elements in tissues and biological fluids is a valuable diagnostic factor in many pathological conditions. Thus, the literature on the content of macro- and micronutrients in the blood serum of HIV-infected persons are controversial, their diagnostic criteria is not fully formed, and correction via food is not sufficiently developed, which explains the relevance of the topic chosen for this study. The goal: to study the content of macro- and micronutrients in the blood serum of HIV-infected persons to optimize diagnostics of macro- and microelementosis.

Materials and methods. We have conducted research in the archive of Kharkiv Regional Clinical Infectious Diseases Hospital. Total 34 HIV-infected persons were examined. The patients' age was 17-69 years. The control group consisted of 32 almost healthy individuals. The content of trace elements (copper (Cu), iron (Fe) and zinc (Zn)) and macroelements (potassium (K), sodium (Na), calcium (Ca), magnesium (Mg)) in the blood serum was determined by atomic absorption spectrophotometry in the central research laboratory of KhNMU.

Results of research. The meaningful deviation from the control group is detected relatively to decreasing of Fe and Zn contents. Also, it was discovered that significant changes were found in relation to reduction of Mg and Na. During the study of the correlation structure of HIV-infected patients CD4+ cells form 3 connections with macro- and micronutrients. That is why, direct correlation between CD4+ and Fe, Cu, Mg is observed. Based on the nature of the presented connections, existing deficit of macro- and microelements among the patients causes shortage of T-immune system. The detected disorder of contents indices of mineral metabolism of HIV-infected people showed a reliable connection with severity of immunodeficiency.

Conclusions. The microelementosis manifestations, specifically reduction of Zn, Cu and Fe were observed among HIV-infected people compared to the control group. A disorder of macroelements in the blood serum of HIV-infected people was characterized by reduced level of Na, Ca, Mg and increased K level. Detected contents disorders of micro- and macroelements among HIV-infected individuals showed a reliable connection with the severity of immunodeficiency and they increase with its growth. Detected contents disorders of micro- and macroelements among HIV-infected people and patients need corrections of the diet. It will help in correction of the detected deviations.

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THE USE OF ENTEROSORBENTS, WHICH BASED ON SILICON DIOXIDE IN THE TREATMENT OF ACUTE INTESTINAL INFECTIONS

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Introduction. Nowadays acute intestinal infections (AII) are one of the most topical problems of the modern infectiology, because of the high level of morbidity, widespread, the group cases of occurrence, and subsequently forming a favorable background for the development of the chronic inflammatory bowel pathology. For the rational complex therapy of patients with AII our attention was drawn to the possibility of using modern siliceous enterosorbent "White coal". It is known that enterosorbents based on silica or silicon dioxide have a great number of positive pharmacological effects like a large sorption capacity and high speed immobilization of microorganisms and bacterial toxins. Enterosorbents based on SiO₂ don't cause a constipation, they are characterized by non-toxic, hypoallergenic and selective action.

The aim of the work was to explore the efficiency of the modern enterosorbent "White coal", which based on the SiO₂, in patients with AII.

Materials and methods. To realize the aim of the work were examined 85 patients with AII in the age from 17 to 50 years, of them 45 patients in the complex treatment of AII in addition to the basic therapy received the enterosorbent "White Coal" 2-3 tablets 30-40 minutes before eating or medicinal drugs, 3-4 times a day for 5-7 days (main group) and 40 patients received basic therapy AII and porous enterosorbents (control group). The diagnosis is established on clinical and epidemiological data with verification etiology of AII bacteriological and serological methods. All patients were diagnosed with "acute intestinal infection, the average degree of severity."

Results of research. All patients noticed the acute beginning of the disease with fever of 37 °C to 38,5 °C. Most of the patients complained of the pronounced general weakness (83.5%), headache (58.8%), nausea (65.9%), vomiting (56.5%), abdominal pain (83.5 %) and diarrhea (100%). In the analysis of clinical course of the disease on the basis of the therapy found that the duration of febrile period was in patients with AII of the main group in average $3,17 \pm 0,32$ day, patients in the control group - $4,3 \pm 0,42$ day, duration of diarrhea in patients AII main group averaged $4,2 \pm 0,17$ day, patients in the control group - $5,75 \pm 0,25$ days; abdominal pain syndrome occurred in patients with AII main group a mean of $3,9 \pm 0,25$ days in the control group of patients - over $5,8 \pm 0,35$ days. Found that when using the drug "White Coal" in any of the cases, there has been the development of any side effects or adverse reactions.

Conclusions. Thus, the obtained data show the advantages of complex therapy with the enterosorbent "White Coal" which based on silicon dioxide.

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CHICKEN POX

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Introduction. Is a skin disease caused by a child infected with a special virus called VZV, which is the same family virus that causes herpes pills that appear on the lips. The most common among children is between the ages of 3 months and 10 years.

Materials and methods. Chickenpox is highly contagious and the infection lasts for two days before the onset of the rash. It happens in a terrible way. The infection is transmitted through respiratory spray or by contact with the skin. It may cause some alarming complications, and the likelihood of complications is increased in young children under one year of age and in adults. The disease is serious only in children with immunodeficiency or who receive immunosuppressants. The incubation period is from 10 days to 21 days. The incubation period is the time required for the virus to cause the disease after the child has been infected with the virus. If, for example, a child is infected today, the disease can appear 10 days to 21 days. Symptoms of Chicken pox. The disease may be mild and transient, and may be severe and obvious, and we usually see the following symptoms: rash, intoxication syndrome, sometimes can develop complications such as meningitis, encephalitis. The grains are in the shape of a donkey high above the surface of the skin and develop to form a small follicle filled with fluid. They may be in different stages of development and appear in the form of batches, that is, there are modern pills without liquid, and other liquid, and another exploded the follicle and turned to resemble a small wound and dry, and there may be a few grains, and may be It is spread throughout the body, and in some cases the pills appear on the head and in the mouth and eye. It is noted that the pills do not appear on the palm of the hands or on the bottom of the feet.

Results of research. It may be difficult to avoid the disease if the child has not received the vaccine, but the injury of the child is small is better than if he was older and the disease leaves a semi-permanent immunity after the first infection (the child may develop in some cases but the disease is mild). The pregnant woman should not be exposed to the injured child, especially in the first three months. There is a special vaccine for the disease that can be given to children after the age of the year. The effect of chickenpox on the fetus if the mother is infected: if the mother is infected with chickenpox during the first months of pregnancy, there is a risk to the child 1-2%. The pregnant mother must avoid infection during pregnancy. If the mother has smallpox within 5 days before birth until two days after birth, the baby is at risk of smallpox and should be treated in hospital.

Conclusions. Morbidity of chicken pox in the world. can be decreased by preventive measures such as isolation and vaccination. Treatment on time can help to avoid development of severe complications.

Kuzminova V.

EARLY DIAGNOSIS OF LIVER FIBROSIS IN PATIENTS WITH CHRONIC HEPATITIS C VIRUS

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Introduction. According to WHO estimates 57% of liver cirrhosis (LC) and 78% of cases of primary liver cancer caused by hepatitis B virus (HBV) influence or hepatitis C virus (HCV). Once cirrhosis patients remains satisfactory condition (step compensation) for a long time, but about 5-7% patients have complications each year (transition to decompensated) and mortality rate is 57% per year. Therefore there is a need to develop methods by which we can identify patients with chronic liver disease and identify people with the threat of complications and death from liver disease.

Materials and methods. We examined 36 patients with chronic HCV without clinical signs of the LC. Among them, 17 men (47.2%), women - 19 (52.8%). Average age was $54,5 \pm 2,34$ years. The diagnosis is established on the basis of clinical, biochemical and virological methods. Fibroelastography was carried out by using the apparatus of Fibroscan 502 TOUCH (Echosens, France). The stage of fibrosis in the liver was calculated based on the age and sex of the patient. The quantitative indicators were evaluated according to the METAVIR system.

Results of research. Liver fibrosis stage F0 (no fibrosis) was observed in 3 patients (8.3%), F1 (gantry fibrosis without septum formation) - 10 (27,8%), F2 (gantry fibrosis with rare septum) - 9 (25 %), F3 (multiple portocentral septum without cirrhosis) - in 6 (16.7%). The stage of fibrosis F4 (cirrhosis) was first established in 8 patients (22.2%), which allowed to state the diagnosis of LC class A for Child-Pugh.

Conclusions. Application liver fibroelastography by apparatus Fibroscan in patients with chronic HCV to set the stage of liver fibrosis and identify LC in the first stage (class A for the Child-Pugh), which is important for determining further therapeutic tactics.

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PROBLEMS OF HIV INFECTION OF WOMEN IN UKRAINE

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Introduction. In last years, the number of women of childbearing age has significantly increased among of HIV-infected people, which is directly related with changing the ways of transmission of the virus. So the leading role in the transmission of HIV infection and influencing the manifestations of the epidemic process were sexual, parenteral and vertical (from mother to child). HIV infection in pregnant women invariably presents significant difficulties for the obstetrician. Doctors have a serious task to reduce the risk of transplacental transmission of the virus to the fetus and to maintain the health of the expectant mother.

Materials and methods. The analysis of the ways of HIV transmission and estimate of the incidence of HIV infection for the period 2008-2015 in Ukraine in pregnant women was carried out.

Results of research. In 2008, in Ukraine the dominant routes of transmission of the causative agent of HIV infection were changed from the artificial parenteral with the use of injecting drugs on the sexual with heterosexual contacts. In the structure of HIV transmission routes (taking into account the indicator of the frequency of mother-to-child transmission of HIV), the proportion of the sexual way of HIV transmission has steadily increased and amounted to 72.5% in 2015, compared with 51.1% in 2008, having increased by 8 years on 19.4%, which can lead to the transition of the virus from the risk group of parenteral drug users to the general population of people, while women will play the role of a bridge. The indicator of the level of mother-to-child transmission of HIV in Ukraine in 2001 was 27.8%. In Ukraine, a program to prevent mother-to-child transmission of mother-to-child transmission was introduced, including antiretroviral prophylactic treatment for pregnant women and children born to HIV-infected mothers, leading to a decrease in the prevalence of HIV infection among pregnant women by primary testing from 0.55% in 2009 to 0.39% in 2014, the incidence of mother-to-child transmission of HIV decreased from 27.8% in 2001 to 3.35% in 2014.

Conclusions. A change in the structure of transmission routes with predominance of the sexual ways increases the risk of infection of women of childbearing age and perinatal transmission of the virus to the child. To reduce the risk of the birth of HIV-infected children, it is necessary to implement the state program to prevent the vertical transmission of the pathogen from mother to child. It is necessary to provide access to antiretroviral preventive treatment for pregnant and children born from HIV-infected mothers, as well as timely delivery of drugs to all regions of Ukraine.

Obasi Hosanna Nnennaya

COMBINED THERAPY OF PATIENTS WITH PSORIASIS USING THE 311NM NARROWBAND PHOTOTHERAPY

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Introduction. Psoriasis is one of the most widespread chronic dermatosis (3-7 % of world population suffers from it). It is a multifactor dermatosis influenced by genetic, immune and environmental factors. Psoriasis is characterized by epidermal hyperproliferation, disturbance of keratinocytes and functioning of immune system. Almost all patients with psoriasis have observed the positive effect of sun rays. For treatment of patients with psoriasis photochemotherapy (PUVA), selective phototherapy and UVB therapy with wavelengths of 311–313 nm is recommended.

Materials and methods. Group 1 (study group) -10 patients with psoriasis (7 male and 3 females aged from 18-56years) were treated by means of basic therapy and phototherapy (using UV irradiation apparatus UVB-311nm of dermatological type “Psorolight” produced by “Medpromservis”). The initial dose was 0.1J/kg cm, and this

was gradually increased by 0.1J/kg cm. The duration of the procedure depended on the individual and dosage of irradiation, about 3-7 times a week. Total duration of treatment was 4weeks. Group 2 (control group) - 10 patients received only basic therapy.

Results of research. During the research, all participants underwent the following diagnostic and therapeutic procedures. Only patients of group 1 underwent phototherapy. Patients of group 1 and 2 had basic therapy: magnesium sulfate (25%-5ml i/m for 10days), asparkam (1tablet 3x/day), fenkarol (0.025 for 7days), pyridoxine hydrochloride (5%-1.0ml i/m for 14days), cyanocobalamin (0.02%-1.0ml i/m for 14days), topical-keratolytic ointments for 7 days. The patients were recommended a special diet, and avoidance of overcooling and mechanical and chemical irritants of the skin. Diagnostic criteria for local status - visual examination of patients and determination of PASI (Psoriasis Area and Severity Index).

Therapeutic effect was observed in all 10 (100%) patients of group 1. Clinical recovery in group 1 was observed in 8 (80%) patients and a significant improvement in 2 (20%) (PASI reduction of 65-80%). In patients of the first group, on the 4th-5th day after onset of treatment, cessation of appearance of new skin lesions, decreased hyperemia were observed. On the 14th-15th days, regression of rashes was observed and full clinical remission was observed in patients after the 27th-28th days of treatment. Clinical recovery in group 2 was observed in 6 (60%) patients, (PASI reduction of 75%), a significant improvement in -3(30%) (PASI reduction of 52%), a slight improvement-in 1(10%) patient.

Conclusions. Results of treatment show that the therapeutic efficacy of people with psoriasis who received basic treatment and phototherapy was higher than in patients who received only basic therapy. Very good results were seen in patients with disseminated forms of psoriasis with localization of pathological process on the palms and soles. The advantages of 311nm narrowband phototherapy are good tolerability, absence of side effects, minimal risk of carcinogenesis due to relatively low total dose of radiation.

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CHILDHOOD VACCINES

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Introduction. Today children around the world routinely get vaccines that protect them from a dozen of diseases such as measles, polio, tetanus, diphtheria and pertussis. Vaccination helps to prevent potentially deadly diseases, and work best when given at certain ages.

Materials and methods. According to CDC, vaccination is one of the best ways parents can protect children from about 14 of them, and from teenage about 16. Schedule for vaccination (birth to 6 months) includes: 1. at 1 day: Hepatitis B vaccine (1st dose), 1-2months (2nd dose); 2. 2 months: Diphtheria, tetanus and pertussis. Haemolytic influenza type B, inactivated polio vaccine, rotavirus vaccine; 3. 4-

6months: completion of Dtap, Hib, IPV, PCV, RV, with an inclusion of flu shots against influenza.

Results of research. The Implication of routine and complete vaccinations is reflected in each countries' childhood morbidity and mortality rates from preventable infectious diseases. Also the valid and abled work-force of any can be used as an indication of how effective vaccinations were. Summary of research show that, the incidence of infectious childhood diseases has been curbed to more than 50 percent of their chances.

Conclusions. Awareness and Education are still key to getting people in touch with the need of vaccinating their children.

Onwujekwe Udodi

PARACOCCIDIOMYCOSIS

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Introduction. Paracoccidiomycosis (PCM) is an endemic fungal disease acquired exclusively in Latin American countries especially Brazil (80% of reported cases) caused by the dimorphic fungus *Paracoccidioides brasiliensis* (3 subspecies-PS1, *P. lutzii*, and PS3). The primary way of infection is pulmonary, by the inhalation of fungus spores or particles. Several anatomic sites can be involved by lymphohematogenic dissemination to other organs and systems, including oral mucosa. The infection is sometimes asymptomatic but may progress to a systemic granulomatous disease with tegumentary and visceral affection. The disease has 2 main forms –Acute/juvenile form and the Chronic/adult form. The aim of this abstract is to create awareness on this disease in order to encourage it's clinical detection and treatment.

Materials and methods. The study group consisted of 5 individuals (3 males and 2 females) between the ages of 48-57, who visited a local clinic with complaints of productive cough not responding to off-the-counter antibiotics, dyspnea, chest pain and fatigue. A history of the patients was obtained. 4 of the patients (2 male and 2 female) presented with mulberry-like granulomatous lesions throughout their oral mucosae, especially pronounced on the periodontal tissue; 2 patients (both male) additionally had similar granulomatous lesions on the skin around their noses. The 3rd male patient presented with a more disseminated form of the disease- diffuse granulomatous lesions on skin of face and neck and oral mucosa, complaints of joint pain and deformation of distal phalanges of the hands, cervical lymphnodes bilaterally enlarged up to 5cm, with reddened skin and some signs of possible surface ulceration. Chest Xrays, wet preparations of sputum, superficial scrapings of skin and mucosal lesions for culture and microscopic analysis, serological tests (ELISA) for PCM and diagnostic tests for HIV infection and Tuberculosis were performed in all patients. An Xray of the hands of the male patient with articular syndrome was also performed.

Results of research. Chest X-rays in all patients revealed fibrous and degenerative changes bilaterally, but especially around the middle lobe of the right lungs, in all patients. In the 3 male patients, emphysematous changes were also found. The typical pathognomonic features of paracoccidiomycosis-large, thick-walled, spherical yeast

cells with multiple peripheral buds encircling the central cell (pilot's wheel or mariner's wheel) were found on microscopic examination of the scrapings and sputum from all patients, backed by universally positive serological tests (ELISA) for the fungus. 1 patient (the male with the disseminated form of the disease) tested positive for HIV infection. History obtained, revealed that all the patients had visited a South American country (3 worked in Brazil for 6 years as farmers, 1 was at Chile for 1 month and the 5th visited Colombia) within the past 15years.

Conclusions. In case of presence of triad of pulmonary, oral mucosal, and skin lesions in adult males from rural areas of South America paracoccidioidomycosis should be suspected. Detection of fungal elements at microscopic examination of fresh clinical specimens together with ELISA and PCR results confirm the diagnosis. The current treatment of choice is a 6 to 12-month course of an imidazole such as ketoconazole or itraconazol.

Osipenko T.

QUALITY OF LIFE OF PATIENTS WITH PSORIASIS

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Introduction. The high incidence of psoriasis at the current stage of civilization development is explained by the rapid pace of life of the society, an increase in the emotional load demanding huge nervous and intellectual efforts, as a result of which the quality of life decreases. The aim is to study the quality of life of patients with psoriasis, taking into account the clinical manifestations of dermatosis, psychological, socio-biological factors and to justify the use of medication psychocorrection in the complex therapy of psoriasis.

Materials and Methods. 58 patients with a prolonged debilitating course of chronic dermatoses, in particular psoriasis, with numerous relapses, excessive exertion of the reactive forces of the body, the appearance of physical and psychological disorders with the development of signs characteristic of the chronic fatigue syndrome with asthenic symptoms (sleep and appetite disorders, depressive phenomena), Which is the background for decreasing the quality of life of patients.

Results of research. Correlation of quality of life indicators with social and biological factors - sex, age, social activity and clinical manifestations of psoriasis - age, onset of the disease, frequency of exacerbations and prescription of dermatosis, provoking factors, severity and prevalence of skin process, localization of rashes, subjective symptoms.

Conclusions. In patients with psoriasis, the quality of life is affected not only by the clinical manifestations of dermatosis, but also by the psychoemotional state of patients, so the correlation coefficient of the quality of life indicators (questionnaire P01) with the PA81 index is $r = 0.5$, and with reactive anxiety $r = 0.8$ ($P < 0,05$). A high level of alexithymia (54.7%), a propensity for anxiety and depression (89%), an accentuation for cyclothymic (78%), pedantic (75%), anxious (77%), low Demonstrative (77%) and hypotensive (93%) types. The use in the complex treatment of psoriasis patients with symptoms of anxiety of selective anxiolytics increases the effectiveness of traditional dermatotropic treatment, which is reliably revealed in the positive dynamics of the data

of the index of PAB1, the Spielberger test and the quality of life indicators. Application in the complex treatment of psoriasis patients with symptoms of anxiety medication psycho-correction contributes to a significant increase in their quality of life.

Panich R.

INVESTIGATION OF CELLULAR IMMUNITY IN PATIENTS WITH PSORIASIS BASED ON SEASONALITY

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Introduction. In psoriasis, the violation of many organs and systems are complex, but the leading role given to genetically determined or acquired immune disorders. The role of immune mechanisms in the development of psoriasis can not be considered fully explored because cellular and humoral immune defense is characterized by multi-directional changes.

Materials and methods. To investigate cellular immunity in patients with psoriasis based on seasonality, we have analyzed 74 patients who were divided into 4 groups: winter form (it included 40 patients), summer form (6 patients), undifferentiated form (8 patients), group control (20 patients).

Results of research. In the study content CD3 + lymphocytes in patients with psoriasis according to the season when relapses occur more often, it was found possible decline in patients of all groups. The content of CD4 + T cells was also significantly reduced in all groups. The content of CD8 + lymphocytes probably exaggerated rate in the control group, patients with psoriasis without seasonal dependence, and in patients with winter or summer forms did not differ from that of the control group. The content of CD22 + lymphocytes was significantly reduced in patients with undifferentiated form and was $8,5 \pm 0,8$ (in the control group $10,8 \pm 0,7$), and in patients with winter and summer forms did not differ from that of the control group (was $10,2 \pm 0,6$). Content CD16 + T cells was significantly reduced in all patients with psoriasis. Content CD56 + T cells was significantly reduced. Significant difference from that seen in healthy donors ($P < 0.05$).

They also investigated cytokines in the blood of patients with psoriasis based on seasonality. The content of IFN- α experienced significant alteration in patients of all groups, namely all patients it was significantly reduced. The content of IFN- γ in these same patients also decreased significantly. The content of IL-4 observed in all patients was significantly increased. The content of IL-2 significantly decreased as in all patients with psoriasis. Significant difference from that seen in healthy donors ($P < 0.05$). When examined immunoglobulins depending on seasonality was found following changes. The content of IgA was significantly reduced in patients with psoriasis all groups. Content IgM exaggerated figure in a group of healthy individuals in patients with psoriasis and winter form undifferentiated and elderly patients with recurrent psoriasis remained unchanged. We watched as the likely increase of IgG in patients with psoriasis. The highest level of IgG was increased in patients with psoriasis

undifferentiated form. Significant difference from that seen in healthy donors ($P < 0.05$).

Conclusions. Patients with psoriasis showed disturbances of the immune balance, which was in the inhibition of cellular immunity. Changes in cellular and humoral immunity depended on seasonality, besides the level of CD22 + -lymphocytes, which was significantly reduced in patients with undifferentiated form.

Pavlichuk Y.

STUDY OF CHANGES SOMATOTROPIN IN PATIENTS WITH PSORIASIS

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Introduction. Hypothalamic dysfunction, peripheral metabolism of hormones of the endocrine glands are factors that affect the clinical course of psoriasis and skin.

In the implementation of non-specific adaptation reactions of the organism neuroendocrine system an important role play steroids and pituitary hormones. The aim of our study is to explore the concentration of growth hormone according to age-old psoriasis patients and to assess its role in the pathogenesis in this dermatosis and adaptation abilities of patients with psoriasis.

Materials and methods. We have examined 120 case histories of patients with psoriasis. All patients were treated in dermatovenerologic hospital №5 in Kharkiv. To the control group we took 20 healthy individuals who underwent dispensarization in the Regional Hospital. We divided patients into three groups according to age: one group of patients aged 18 to 30 years, the next group aged 31 to 50 years and the last group - patients older than 51 years. Depending on the duration of the disease patients divided into groups: disease duration which ranged from 1 to 5 years 6 to 15 years and 16 years or more.

Results of research. Research the blood of patients with psoriasis, distributed according to age revealed the following changes in the concentration of growth hormone. The level of growth hormone in the group of 18-30 years did not differ from the indicator healthy individuals. Patients aged 31-50 years it was significantly reduced (62.9%) and in patients older than 51 (57.4%) as well. Research correlative dependence between patient age and the level of growth hormone (Spearman correlation coefficient) showed no significant ($p > 0,05$) connections because the prescription of of the disease in different age groups were significantly different a period for the disease. When studied of ST levels according to different disease duration, we observed the following changes. The concentration of growth hormone in patients with disease duration of 5 years did not have differences on the level of healthy persons. Patients who suffered for 6-15 years, the of ST was significantly reduced (64.8%) in patients more than 16 years of ST concentrations were also significantly decreased - 53.7% compared with the group of healthy individuals.

Conclusions. In 70 patients (58.3%) with psoriasis we observed disturbances adaptive hormone concentrations, indicating that weakening and dissociation mechanisms of nonspecific adaptation syndrome. In 20% of patients younger than 30 years we have

have observed maintaining the level of growth hormone. With the extension of the disease over 5 years established advantage decrease in levels growth hormone.

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VALUE DETERMINATION OF UREA IN PATIENT'S SERUM WITH CHRONIC HEPATITIS C

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Introduction. Urea - diamid carbonate acid that is produced in the liver as a result of removal of ammonia from the body and is excreted by the kidneys. In pathological processes changing of a urea level in serum depends on the ratio of processes of formation and excretion (Sklyarov, 2007). Therefore, there is reason to think that changes of it contents in blood serum (in the absence of renal disease) in some way can reflect the state of morphological changes in the liver of patients with chronic hepatitis C (CHC). The aim - to evaluate the content of urea in the patient's serum with chronic hepatitis C, depending on the degree of activity and stage of liver fibrosis.

Materials and methods. Under the supervision there were 11 patients with chronic hepatitis C, including men was 8 (73%), women - 3 (27%). The average age of patients was $36,51 \pm 2,45$ years. The diagnosis is confirmed by detection of serum antibodies to HCV by IFA and RNA-HCV PCR. All patients were tested for serum's urea, the degree of activity of hepatitis and fibrosis stage by the system FibroMax. The control group consisted of 20 healthy donors. Statistical analysis of the data was performed by methods of variation statistics using Student's t criterion, the correlation coefficient «r» for small samples.

Results of research. The content of urea in the patient's serum with chronic hepatitis C are not different from control values ($4,54 \pm 0,36$ mmol / l and $5,04 \pm 0,46$ mmol / L, respectively, $p > 0.05$). The weak level of activity (A1) was diagnosed in 8 (73%), moderate (A2) - 3 (27%) patients. Stage fibrosis F0 is set to 1 (9,0%), F1 - 4 (36,4%), F2 - 4 (36,4%), F3 - 2 (18.2%) patients. Holding correlation analysis revealed the presence of feedback between moderate content urea in serum and stage of fibrosis ($r = -0,71$; $p < 0.05$). Any relationship between urea content in studied patient's urea and the degree of activity of CHC is not established ($r = -0,39$; $p > 0.05$).

Conclusions. The content of urea in the patient's serum with chronic hepatitis C tends to increase, but not significantly different from the rate in the control group ($p > 0.05$). However, this figure can be used as an additional criterion for assessing morphological changes, such as liver fibrosis in patients with CHC.

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TUBERCULOSIS EPIDEMIC IN UKRAINE

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Introduction. Tuberculosis (TB) is an airborne bacterial infection caused by *Mycobacterium tuberculosis*. TB can be acquired by breathing contaminated air droplets coughed or sneezed by a person nearby who has active TB. Humans can also get ill with TB by ingesting unpasteurized milk products contaminated with *Mycobacterium bovis*, also known as Bovine Tuberculosis. The most common form of the infection is pulmonary TB which affects the lungs. In some cases, the bacteria can also attack the lymphatic system, central nervous system, urogenital area, joints, and bones.

Material and methods. Analysis of scientific literature and official statistic data about death cases of TB.

Results of research. The annual mortality rate per 100,000 people from TB in Ukraine has increased by 52.7% since 1990, an average of 2.3% a year. In Ukraine the maximal mortality rate from TB among men is observed at age 50-54 and the lowest rate mortality rate in men is reported at age 10-14. In 2013 52.8 deaths per 100,000 men were reported, this index was higher in men than in women that was 7.7 per 100,000 women. The highest mortality rate from TB among women was at age 40-44 and the lowest index among them was reported at age 10-14. Official statistic data show that today every fourth person with TB remains unnoticed by national healthcare system. Due to the lack of minimum conditions required for early TB detection in the context of the military conflict in the East of Ukraine, the development of TB epidemic is now uncontrolled like a “black hole”, which is a real threat for other regions of the country, especially considering high level of migration and big number of internally displaced persons.

Conclusions. To reduce the incidence and mortality from tuberculosis, it is necessary to conduct effective epidemiological surveillance and control with the isolation of each case of active TB, improve the socio-economic conditions of the people life and conduct active educational programs for population.

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ASSESSMENT OF THE LEADING ROUTES OF TRANSMISSION OF THE HBV IN KHARKOV CITY

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Introduction. Viral hepatitis B (HBV) refers to the widespread, with an equable distribution of cases across the territory and among different population groups, with the prevalence of chronic forms of HBV over the acute and frequent formation of liver cirrhosis and hepatocellular carcinoma. WHO estimates that 57% cases of liver cirrhosis

and 78 % of primary liver cancer connected with HBV. Determine the leading ways and factors of transmission of HBV among the population of Kharkov city in 2015.

Materials and methods. Was conducted a comparative analysis of the ways and factors of transmission of HBV in Kharkov city based on data about morbidity. Epidemiological data and information are statistically processed.

Results of research. Analysis of 69 cases of HBV that was registered in 2015 in Kharkov city , showed that in 66,7 % of cases, the ways and factors of transmission were found and established. Parenteral route of transmission amounted to 69,9 % of cases , including different ways such as , sanitation of oral cavity 28,1 % , medical interventions and manipulations 53,1 % , surgical and gynecological operations in 21,8 % of cases. In 2015 , the transmission of the virus Non - pharmacological parenteral route by injecting narcotics amounted to 19,2 % , sexual transmission (contact with a patient or carrier) 6,7% , contact transmission - 4,3%. In 33,3 % of cases the way of transmission wasn't found .

Conclusions. Thus , based on the results of the analysis, it can be argued that the parenteral pathway remains the leading way of HBV transmission, which is associated with providing medical care to patients in hospitals in the city of Kharkov. Such indicators show a violation of the sanitary and anti-epidemic regime in medical institutions while providing medical care to patients and the need to comply with the disinfection-sterilization regime. It is necessary to develop and implement a set of preventive measures aimed at preventing the spread of HBV among users of injecting drugs. Also causes caution that in 33.3% of cases the ways of transmission of HBV are not established.

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ACTUAL OPPORTUNITIES OF MODERN COSMETOLOGY

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During recent years, a very effective method of struggling with all signs of skin aging has appeared which gives the result, immediately after the first application and does not require a rehabilitation period. This procedure is called plasmolifting.

The plasmolifting technique was developed by R.R. Akhmerov, professor, doctor of medical sciences, together with R. Zarudiy. It is based on rejuvenating of patient's skin with his blood plasma enriched with platelets.

It has no erythrocytes in the composition, and the number of platelets in it is close to their number in the peripheral blood (150-350 thousand /mkl). Such plasma is very rich in amino acids, mineral elements (potassium, magnesium, zinc, iron, calcium, etc.), peptides and vitamins of groups B, C, A, D, E, K, which are necessary for the vital activity of cells. Being a natural component of the human organism, autoplasm does not cause allergic reactions.

Plasma, which is prepared for the injection, is injected into problem areas through mesotherapy techniques, and promotes the activation of the functioning of connective tissue cells.

As a result of the injection of plasma, enriched with platelets, metabolism is activated, collagen, elastin and natural hyaluronic acid, substances that are responsible for the elasticity and smoothness of the skin, are intensively produced. The formation of fibroblast cells allows the skin to return to a young, fresh and attractive appearance.

This technique has found its usage in many medical specialties, such as dermatology, trichology, gynecology, dentistry, kombustiology, sports medicine and others.

With the injection of platelet-enriched autoplasm, many problems can be solved: flabbiness and lethargy of the skin not only of the face, but also of the body; improve the appearance of postakne; improve and smooth out the skin color and hyperpigmentation.

Methods and materials: under our observation, there were 25 women aged from 30 to 60 years. Patients complained of reduced turgor and skin tone, dull complexion, wrinkles in the periorbital area, nasolabial folds, "fuzzy" oval face, dry skin, hyperpigmentation on the skin of the face, skin condition after a course of chemical peelings.

Treatment consisted from 4 plasmolifting procedures, 1 time in 14 days, with the aim of solving an individual problem.

Special biotech tubes of the brand Plasmolifting™ with an anticoagulant and a separation gel were used. All materials for the procedure are certified, disposable and sterile.

The blood was taken from the patients in the amount of 10 to 30 ml from the ulnar vein. The tubes with blood were placed in a special centrifuge (the centrifuge model must meet the requirements for plasmolifting). After centrifugation, the blood breaks down into three fractions: the cellular component, platelet-rich and plasma growth factors; and poor plasma and fraction in red blood cells. The process of preparing plasma takes about 10 minutes.

After, plasmas were taken into syringes and with a help of mesotherapy methods (papulously, linearly) were injected in the hypoderm of the problem areas.

Results: 98% of women were very satisfied with the results of the procedure.

The patient noted that the complexion became more even, the skin was more flexible and elastic, fine wrinkles disappeared. Also, a decrease in the manifestations of erythrocuperosis was noted.

Conclusions: Plasmolifting is a unique injection technique that rejuvenates the skin, improves the tone and turgor of the skin, smoothest the tone and brightens the skin color. This technique is available, hypoallergenic, because patient's blood is used without any additives and additional components.

The procedure of plasmolifting can be combined with other cosmetic techniques (biorevitalization, laser photothermolysis, etc.), which enhances the effect of rejuvenation, because procedures potentiate the effect of each other.

Due to the fact that the technique is minimally invasive and can be applied on an outpatient basis, it is possible to widely recommend the technique of plasmolifting to a wide range of people to improve the quality of the skin and appearance.

Sameja Majida

ROTA VIRAL DIARRHOEA SPECIFIC PREVENTION IN TANZANIA

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Introduction. Rotaviral gastroenteritis is the most common cause of severe diarrhoeal disease in infants and young children worldwide contributing up to 41% of the total diarrhoea cases. In Tanzania diarrhoeal ranks number three in overall cause of child mortality. Data from the three sentinel surveillance sites indicate that 38% of specimens were positive for rotavirus infection which is responsible of 30% – 50% of all hospitalized children with diarrhoea in Tanzania. After recognizing the urgency and importance of addressing what are largely preventable deaths, the Government of the United Republic of Tanzania prioritized the introduction of a rotavirus vaccine, in the country's comprehensive multi-year plan 2010-2015.

Materials and methods. Metaanalysis of scientific publications from 2010 till 2015 of reports on the subjects: rotavirus, gastroenteritis, vaccination Programme in Tanzania.

Results of research. The Rotarix vaccine has been identified as the chosen formulation and was launched in Tanzania in early 2013. Key findings from global cost-effectiveness analysis showed routine rotavirus vaccination programs would prevent 0.9 – 2.8 million rotavirus associated deaths, 4.5 – 13.3 million estimated cases of hospitalization and 41-107 million cases of outpatient clinic visits among outpatient clinic visits among children under the age of 5 years in the poorest parts of the world. \$88 per disability-adjusted life-years saved, \$3,015 per death averted. Cost effectiveness is greatest in countries with highest children mortality rates like Tanzania. After period of rotaviral vaccine introduction research based on 204 rotavirus case patients and 601 test-negative controls aged 5–23 months, the vaccine effectiveness (VE) of 2 Rotarix doses against hospitalization for rotavirus diarrhea was 57% (95% confidence interval, 14%–78%). VE tended to increase against hospitalizations with higher severity, reaching 69% (95% confidence interval, 15%–88%) against the severity score for the top quarter of case patients. Compared with the prevaccine period, there were estimated reductions of 40%, 46%, and 69% in the number of rotavirus hospitalizations among infants in 2013, 2014, and 2015, respectively, and reductions of 36%, 26%, and 64%, respectively, among children aged <5 years (Khamis Ali Abeid, 2017).

Conclusions. 1.The Rotavirus vaccine is safe and effective at preventing severe rotavirus diarrhea and showed effectiveness in hospitalization prevention and mortality rate decreasing. 2.The Rotavirus vaccine was offered as part of the routine immunisation schedule at 6 and 10 weeks or any time when the child first visit the vaccination clinic with an interval of four weeks between the two doses. 3.Rotavirus vaccine should be accessed free of charge in all health facilities.

Sendeha O.

CORTIZOL CHANGES IN PSORIASIS PATIENTS

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Introduction. Clinical observations suggest that various environmental factors, functional state of hypothalamus and metabolism of peripheral endocrine glands hormones influence the course of the disease and skin status. In case of adaptation disorders, the course and outcome of psoriasis may vary. Protective and adaptive reactions of the body are realized through the neuroendocrine system, which is characterized by autonomic work of the endocrine glands. Our goal is to study the level of cortisol depending on the stage of psoriasis, in order to evaluate the adaptive potential of the organism of psoriasis patients.

Materials and methods. We have studied 120 case histories of psoriasis patients, which were on treatment in the Kharkiv City Dermatovenereological Hospital No. 5. The control group consisted of 20 practically healthy patients of Regional Clinical Hospital of Kharkov. Psoriasis patients were divided into 3 groups depending on frequency of relapses: 1 time a year, 2 times per year, yearly.

Results of research. An increase in the level of cortisol was observed in patients with relapses every three years. Level of cortisol was significantly reduced in psoriasis patients who experienced a relapse every year 64.75% (Tau-Kendall correlation coefficient $t = -0.38$; $p < 0.05$). Cortisol levels did not change in patients who had a relapse once every two years

Conclusions. Patients, in whom relapses were observed once every 3 years, had abnormalities in hormonal parameters in 22.5% of cases in the form of increased cortisol level, once every two years - cortisol levels did not change in 9.5 % of cases and level of cortisol was reduced in 60% of cases in psoriasis patients who experienced a relapse every year. Reduce of cortisol level in psoriasis patients indicates a significant exhaustion of mechanism of stress realization. Identified maladaptive disorders in patients with psoriasis emphasize the need to develop methods aimed at increasing the adaptive capacities of the organism.

Shubina M.

THE STUDY OF OSCILLATIONS IN ADAPTIVE HORMONES IN PATIENTS WITH CHRONIC ECZEMA

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Introduction. An important role in the implementation of non-specific Adaptive reactions of the organism playing the hypothalamic-pituitary-adrenal system, such as glucocorticoids. Data on daily fluctuations of the content in the blood of the mentioned

hormones adaptation in patients with chronic eczema. The study of biological rhythm characteristics in the level of cortisol and insulin, their role in the pathogenesis of chronic eczema, assessment of the adaptive capabilities of the organism.

Materials and methods. Depending on the content of cortisol in the blood serum in the morning selected three groups of patients with chronic eczema: 1 gr. – high level; 2 gr. with the reduced level of 3 gr. - with normal levels of the hormone.

Results of research. In patients 1 gr. morning cortisol content increased ($p < 0.01$) and reduction of insulin ($p < 0,05$). 2 gr. in the future only the level of cortisol in the morning and in the evening ($p < 0,05$) insulin is not different from the control group. Simultaneous analysis of changes to content of cortisol in the morning and evening insulin allowed in 1 and 2 groups of patients with select subgroups: 1 and 2 and with normal levels of insulin, 1B – low and 2 b – with a high content of insulin. The content of cortisol in 1 and the group exceeded its value in patients 1 would group only in the morning ($p < 0,05$), and the level of insulin different at 08.00 and 18.00. In patients with low content of cortisol is marked fair increase insulin in patients of Group 2 in the morning and in the evening, compared with the 2. Analysis of indicators of daily fluctuations in hormone content in patients 1 and 2 of the groups established the fair to increase the content of cortisol at 6 p.m. occurred in 20 patients (reduction of insulin in 12 cases in the morning and in the evening), decreased cortisol at 08.00 and 18.00 – in 12 patients (increase of insulin at 08.00 in 6 cases). The normal contents of hormones found in 2 patients. Correlation analysis found the existence of a positive relationship between cortizol and prevalence in 1st Gr.; the negative relationship between the cortizol and the duration of the process, cortizol and prevalence in the 2nd Gr.

Conclusions. The obtained results allowed to identify in 54 (84,4%) patients with chronic eczema endocrine disorders universal mechanisms of stress tolerance by the body. We highlighted two types of reaction of the body to stress from the adrenal cortex, which turned out to be an increase in kortisol at 08.00 in 34 (53.1%) patients or a decrease in the hormone at 08.00 and 18.00 in blood 20 (31%) patients. Detected disadaptive disorders in patients with chronic eczema emphasize the need to develop methods aimed at increasing stress and adaptive capabilities of the organism.

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MEDICO-LEGAL EXAMINATION OF KAPOSI'S SARCOMA

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Introduction. Kaposi's sarcoma is plural malignant tumors of skin. First described by Hungarian dermatologists of Moritz Kaposi and adopted by his name. There is excrescence of midwall of vessels(endothelia) in the hearth of Kaposi's sarcoma, the structure of vessels(they become "as a sieve") is violated, and also specific fusiform cages appear is the histological marker of Kaposi's sarcoma. Simultaneously with blood vessels at the Kaposi's sarcoma lymphatic vessels are struck. Depending on etiology, distinguish the next basic forms of Kaposi's sarcoma Classic KS, African KS, Epidemic KS, Immunosuppressive KS.

Materials and methods. There is of interest a case from practice, on results medico-legal examination of dead body of citizen P. It is established during external research of dead body, that the cutaneous covering on the whole were pale, and a skin of face is cyanotic. There were plural knot formations of cyanotic-brown colour, hard by touch on all surface of skin of face, chest, back, stomach and extremities. At internal research of organs of neck of dead body there were visible plural spherical formations of cyanotic-brown colour, that knobbed in the cavity of organs. The same formations were educed in the below located departments of gastrointestinal tract. Farther pathological changes were fixed at research of organs of thoracal cavity. At judicial-histological research in the layers of derma appeared calculation the accrued vessels and fusiform cages are chaotically located, placed with the areas of heamorrhagies. On the basis of the got results of necropsy we came to the conclusion, that at there was a disease - syndrome of the purchased immunodeficit of man, caused HIV. What became complicated by development of malignant new formation of skin (Kaposi's sarcomas) with an innidiation in internal organs.

Results of research. Thus, an analysis the brought supervision over allowed to us to draw conclusion, that diagnostics of reason of death in the cases of opportunism diseases of conditioned HIV, requires from medico-legal experts, enough thorough knowledge for diagnostics of opportunism diseases of conditioned given by an infection, and possibility to difference by the second types of Kaposi's sarcomas.

Conclusions. In turn objectivity and evidential value of medico-legal expert conclusions depend on it.

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ANALYSIS OF THE EFFECT OF GENE POLYMORPHISM ON THE COURSE OF EPSTEIN-BARR VIRUS INFECTION

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Introduction. Currently, infectious diseases occupy a dominant place in human pathology. The relevance of the Epstein-Barr virus infection (VEB) is due to a high degree of infection of the population around the world, as well as specific antibodies to this virus, detected in almost 95% of the adult population.

Materials and methods. We have examined 96 patients with chronic VEB infection, the main clinical manifestations of which were various immunopathological and immunodeficiency states, as well as 10 patients who had undergone a history of VEB without any complaints at the moment. The comparison group consisted of 10 clinically healthy people who had no record of infectious mononucleosis. Polymorphism of the genes was determined using the RFLP method (polymorphism of the length of restriction fragments) and the real-time PCR method using the Corbett Research Rotor-Gene-3000 and the DNA-detecting DT-96 amplifier. To detect the polymorphisms under study, amplification of certain sections of the corresponding genes was carried out. To determine the allelic variation of the IL28B gene, a

commercial DNA-technology test system was used. SNP 39743165T> G (rs8099917) and SNP 39738787C> T (rs2979860) of the IL-28B gene were used to detect point mutations using polymerase chain reaction and polymorphism of restriction fragment lengths. As a material for the study, DNA obtained from leukocytes was used with commercial reagents to extract DNA from the clinical material "Cytolysin" by AmpliSens (Russia). Statistical processing of the results of the study was carried out in accordance with the recommendations for statistical processing of biomedical data. The statistical software package STATISTICA 10.0 was used.

Results of research. A group of patients with a record of VEB who do not currently have any complaints, and also in the comparison group for the IL-28B gene, found the CC genotype at the locus rs12979860, and the TT genotype at the locus rs8099917. This suggests that in patients with chronic VEB infection, when the genotype of the CC genotype in the locus rs12979860 and the TT genotype at the locus rs8099917 are detected in the IL-28B gene, a more favorable course. In the analysis of single nucleotide substitutions in the regulatory regions rs8099917 and rs12979860 of the gene IL28B, statistically significant evidence was obtained of a non-random combination of allele pairs CC and TT in individuals with a more favorable course of EBV infection was also obtained, and the number of episodes of exacerbation during the year is significantly less.

Conclusions. The data suggest that the IL-28B genotype is a significant factor influencing the favorable course of the VEB infection, the frequency and severity of episodes of exacerbation throughout the year, and even the probability of transition or non-transition of the disease to a chronic form, and is an important factor in the prognosis. A more favorable course of EBV infection was noted in patients with CC genotype at the locus rs12979860 and TT genotype at the locus rs8099917 compared with the genotypes of CT and TT in the locus rs12979860 and the genotypes GT and GG at the locus rs8099917. Thus, the study of the genotype of IL-28B is an urgent issue and requires further study.

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PREVENTION OF CHOLERA

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Introduction. Cholera is an acute epidemic infectious disease of the small intestine characterized by watery diarrhoea, extreme loss of fluid and electrolytes, and severe dehydration. It can be fatal. It is caused by eating food or drinking water which is contaminated with a bacteria called *Vibrio cholerae* (V. Cholerae). Some common sources of contaminated food and water include: municipal water supplies, ice made from municipal water, foods and drinks sold by street vendors, vegetables grown with water containing human wastes, raw or undercooked fish and seafood caught in waters polluted with sewage.

Materials and methods. When a person takes the contaminated food or water, the bacteria release a toxin in the intestine that produces severe diarrhoea. Although

cholera may be life-threatening, prevention of the disease is normally straightforward if proper sanitation practices are followed. In developed countries, due to nearly universal advanced water treatment and sanitation practices, cholera is no longer a major health threat. For example, the last major outbreak of cholera in the United States occurred in 1910–1911. Effective sanitation practices, if put in place and adhered to in time, are usually sufficient to stop an epidemic. There are several ways to stop the transmission of cholera, some of which are as follows: sterilization, sources, sewage, water purification. **Sterilization:** This includes proper disposal and treatment of infected faecal waste water produced by cholera patients and all contaminated materials (e.g. clothing, bedding, etc.) are essential. All materials that comes in contact with cholera patients should be sanitized well by washing them in hot water, using chlorine bleach if available. Hands should be thoroughly cleansed and disinfected with chlorinated water or other effective antimicrobial agents, when there is a touch of patients clothing, bed linens and so on. The WHO recommends rubbing a wet soapy hands together, for at least 15 seconds before rinsing, after visiting the wash-room, before eating or handling any food. **Sources:** Warnings posters should be posted with directions on how to decontaminate the water (boiling, chlorination etc.) for possible use, at contaminated water sources. General public education on the sources of infection and transmission should be given as well.

Sewage: Antibacterial treatment of general sewage by chlorine, ozone, ultraviolet light or other effective treatment before it enters the waterways or underground water supplies helps us to prevent undiagnosed patients from spreading the disease.

Results of research. **Water purification:** All water used for drinking, washing, or cooking should be sterilized by either boiling, chlorination, ozone water treatment, ultraviolet light sterilization (e.g. by solar water disinfection), or antimicrobial filtration in any area where cholera may be present. Chlorination and boiling are often less expensive and very effective as well. A single dose of oral attenuated live vaccine, was recommended by the FDA for preventive inoculation against cholera. One injectable vaccine was found to be effective for two to three years. The protective efficacy was 28% lower in children less than 5 years old. However, as of 2010, it has limited availability. Work is under way to investigate the role of mass vaccination. The World Health Organization (WHO) recommends immunization of high-risk groups, such as children and people with HIV, in countries where this disease is endemic. If people are immunized broadly, herd immunity results, with a decrease in the amount of contamination in the environment.

Conclusions. Hygienic measures and vaccination against cholera helps decrease the incidence of outbreaks in the world.

Teslenko A., Kravchenko V.

THE USE OF SILICIC ENTEROSORBENTS IN THE TREATMENT OF FOOD TOXICOINFECTIONS

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Introduction. For today, food toxicoinfections (FTI) are important medical and social problem. According to the WHO, each year about 30% of the population suffer from diseases associated with FTI. Furthermore, polymorphism of clinical manifestations, polyetiologic and in some cases, atypical course of FTI complicate a diagnosis, that is also an actual problem. Nowadays, the attention of researchers and practitioners is drawn to the use of enterosorbents in clinical practice, which based on silica or silicon dioxide (SiO₂), because these drugs have a great number of positive pharmacological effects. For the rational complex therapy of patients with FTI our attention was attracted by the possibility of using modern enterosorbent "White coal". The aim of the work was to evaluate the efficiency of the modern silicic enterosorbent "White coal" in the complex therapy of FTI.

Materials and methods. To realize the aim of the work were examined 70 patients with FTI, the average age of the patients was $32,4 \pm 7,8$ years (from 17 to 60). To select the optimal treatment regimen and evaluate its clinical effectiveness, the patients were monitored and divided into 2 groups of 35 people in each. In the first (main) group, patients received basic therapy with silicic enterosorbent "White Coal" 2-3 tablets 30-40 minutes before meals 3-4 times a day for 5-7 days. In the treatment of the second (control) group, was used only basic therapy.

Results of research. Patients admitted to the hospital on average 2.5 ± 1.5 days of illness with complaints of nausea, vomiting, stool, abdominal pain, general weakness. In the analysis of the therapy, it was found that the inclusion of silica-containing enterosorbent "White coal" in the complex treatment of patients with FTI had a positive effect on the course of the disease. In the course of the treatment of patients with FTI, clinical improvement was gradually achieved, which was characterized by a decrease in the manifestations of the syndrome of infectious toxicosis, abdominal pain and dyspeptic syndromes, while the main group of patients had earlier terms of disappearance of the symptoms. The average time to achieve the effect of the treatment in the control group was 2.6 days (95% confidence interval (CI) was 2.3 days - 3.0 days), and for patients of the main group the average time was 1,7 days (95% CI 1.6 days - 1.9 days). Thus, the use of the "White coal" reduces ($p < 0,001$) the duration of the treatment an average of 0.9 days (95% CI 0.5 days - 1.2 days) in comparison with the control group.

Conclusions. The obtained data allow us to conclude, that the use of silicic enterosorbent "White Coal" in the therapy of patients with FTI is pathogenetically substantiated and clinically appropriate.

Teslenko I.

THE EFFICACY OF BASIC TREATMENT BY EMOLLIENTS IN PATIENTS WITH ATOPIC DERMATITIS

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Introduction. Improved epidermal barrier formation in a human skin by the basic therapy is an integral component of treatment in patients with atopic dermatitis (AD) different grades of severity. The basic therapy used even when the clinical manifestation is absent. The objective of this study is to investigate the efficacy of emollient's treatment in patients with atopic dermatitis.

Materials and methods. A cross-sectional study of 20 patients with AD (10 women and 10 men) was carried out. The mean age was 20.3 years with an age range of 3 to 87 years and 9 children less than 12 years were among them. All patients used the emollient (water-in-oil emulsion), which included of vegetable □ s oils
 canola), niacinamide and a patented ingredient for recovering microbiome of the human skin. Patients were divided into two treatment groups: group 1 (n=13) patients, who were treated by emollients and group 2 (n=7) patients, who were treated by emollients in combination with topical glucocorticosteroids (TGKS) during 5-6 weeks, average 38 days.

Results of research. Overall, in patients, who were treated by only emollients and in combination with TGKS during 5-6 weeks, the severity of AD decreased: average before the treatment it was 2.7 points, after the treatment - 2.2 points. The dry skin index after the treatment decreased from 2.85 to 2.15 points and the area of inflammation - from 1.7 points to 1.4 points. Long-term use of emollients had a positive effect of the intensity of itching, which decreased from 2.7 points to 1.6 points. The quality of sleep had a positive effect too: average sleep disorders before the treatment were 1.75 points and after the treatment - 1.35. Evaluation of the clinical efficacy of emollients by dermatologists: "good" - 15 (75%), "medium" - 5 (25%). Evaluation of the clinical efficacy of emollients by patients: "good" - 15 (75%), medium - 5 (25%). Overall evaluation of emollients - dermatologists: "good" -13 (65%), "medium" -7 (35%), patients: "good" -14 (70%), "medium" -6 (30%).

Conclusions. Long-term use (more than 5 weeks) of emollients in patients with atopic dermatitis decreased as skin manifestations of dermatosis as general disorders associated with this disease.

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ASPECTS OF DIFFERENTIAL DIAGNOSIS OF STREPTOCOCCAL TONSILLITIS AND INFECTIOUS MONONUCLEOSIS BASING ON CLINICAL APPEARANCE

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Introduction. Streptococcal tonsillitis (ST) and infectious mononucleosis (IM) have a similar clinical picture, that determine the fact that the frequency of distinction in prehospital and clinical diagnoses reaches 50-70%. Urgent is the problem of prehospital differential diagnosis of these diseases.

Materials and methods. A retrospective analysis of the disease histories of patients treated in the Kharkiv Regional Clinical Hospital for Infectious Diseases from 2014 to 2016 with the diagnosis of streptococcal tonsillitis (group I, 37 people) and infectious mononucleosis (group II, 23 people).

Results of research. In the age structure of I group, children under the age of 3 prevails - 46% (17 cases), 4-7 years - 30% (11 cases). Having studied the anamnesis of the disease, complaints and data of objective examination of patients of the first group, we identified typical clinical manifestations and the frequency of their occurrence for ST: fever (100%), changes in the oropharynx (100%), sore throat (97.3%). In 64.9% of patients (24 patients) reported regional lymphadenitis, in 62.2% (23 patients) impaired nasal breathing was present. The mean body temperature on admission to the hospital was 38.0 ± 0.09 ° C. The average duration of fever was 2.5 ± 0.6 days. In 56.7% of cases (21) tonsillitis was catarrhal, in 43.3% (16) - lacunar.

In the II group, children aged 7-15 years - 52.1% (12 cases) prevailed. The complex of symptoms of this disease included the following: Fever (100%), plaque on the tonsils (82.6%), sore throat (91.3%). The mean body temperature was 38.7 ± 0.07 ° C. The duration of the fever was 4.5 ± 0.06 days. Tonsillitis in most cases was represented by a follicular or lacunar form, in 13% (3) the plaque covered the entire surface of the tonsils, in 27% (10) the plaque could be poorly separated. Cervical lymphadenopathy was observed in 95.6% of cases (22 patients), in most cases nodes were of 1-3 cm in size, in 1 patient (4.3%) "packets" of lymph nodes of 5-6 cm were detected. In 78.2% of children (18) was marked splenomegaly, at 86.9% (20) - hepatomegaly. In 21.7% of cases (5), maculo-papular exanthema was observed.

Conclusions. CA and IM have a similar clinical picture, which complicates their differential diagnosis at the prehospital stage. For proper diagnosis is necessary to consider that IM is characterized by higher and prolonged fever, more frequent development of lymphadenopathy with probable occurrence of consolidated aggregates of lymph nodes, possibility of a tightly attached patch on the tonsils appearance, frequent maculo-papular rash, as well as the presence of such cardinal symptoms such as hepato- and splenomegaly. For ST is characterized by an earlier age of the diseased, frequent disruption of nasal breathing, shorter duration of fever.

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DETERMINATION OF THE DIAGNOSTIC ROLE OF BIOGENIC AMINES AT PATIENTS WITH ACUTE HEPATITIS B

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Introduction. According to estimates of the World Health Organization about 2 mld. of people in the world are infected with hepatitis B. Every year about 4 million cases of acute hepatitis are noted, but about 1 million people die because of the consequences of chronic hepatitis B. Factors which influence the development of chronic disease are not fully examined yet. In this regard, we provide relevant to investigate the levels of certain amino acids in hepatitis B, considering their relationships.

Materials and methods. We determined the levels of tryptophan, serotonin, 5-hydroxyindoleacetic acid in blood serum of patients with acute hepatitis B. We examined 30 patients with acute hepatitis B. The control group consisted of 30 healthy people. The diagnosis of acute hepatitis B was confirmed with ELISA and PCR. Serum levels of biogenic amines was determined with standard method.

Results of research. The level of serotonin in blood serum of patients with acute hepatitis B was significantly increasing and amounted to $0,92 \pm 0,03$ mcM / l. Considering that the serotonin is a mediator of inflammation, its increasing at first stage of development of the inflammatory process (alterative, or phase cytolysis) is regular. Serotonin increases vascular permeability, enhances the chemotaxis and migration of leukocytes to the inflammatory focus, increases of eosinophils in the blood, increases mast cell degranulation and release of other mediators of allergy and inflammation. Serotonin is a neurotransmitter which controls appetite, sleep, mood, which were changing at our patients. The level of tryptophan in serum of patients with acute hepatitis B increased to $66.5 \pm 1,5$ mcM / l ($p \leq 0.05$). Tryptophan - is an essential amino acid that is not produced by our body, and coming from the outside with food; it is found in many proteins (such as fibrinogen and blood γ -globulin). Accumulation of tryptophan leads to an increasing of the content of serotonin and to blocking neurotransmitters. 5 oxyindolacetic acid level significantly decreased and amounted to $0,23 \pm 0,02$ mcM / l. This can be used in the differential diagnosis of diseases with jaundice syndrome, considering the fact that the increasing in 5-hydroxyindoleacetic acid in plasma is characteristically only for patients with jaundice due to malignant diseases.

Conclusions. 1. Increasing levels of serotonin and tryptophan in the blood serum were detected at patients with acute hepatitis B. 2. Identification of a significant reduction of 5-oxyindolacetic acid in the blood serum of patients with acute hepatitis B can be used in the differential diagnosis of jaundice of various origins.



PREVENTIVE MEDICINE



**INTERNATIONAL SCIENTIFIC
INTERDISCIPLINARY
CONGRESS**



Amoo-Mensah A., Mary Yaa Acheampoymaa Asanie

ACTUAL PROBLEMS OF PREVENTIVE MEDICINE IN GHANA

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Introduction. Ghana Health Service (GHS) was established in 1996 . In 2004, the National Health Insurance System (NHIS) was established. However, in reality, the activities of the GHS and NHIS require a significant correction. Particularly alarming is the material situation of the inhabitants of the country. The purpose of our study was to study the current problems of preventive medicine in Ghana.

Materials and methods. Theoretical analysis of the literature on the problem of medical care in Ghana.

Results of research. The main problem of medical providing the population of Ghana is absent of qualified medical and preventive care. In many cases is its material and often physical inaccessibility. Less than half of the Ghanaian people pay for the services of the national insurance system. A third of Ghanaian people live on less than one dollar a day. About a quarter of the population at a distance of more than 15 km from a medical facility and a doctor. Currently, more than 45,000 healers are practicing in the country, using unconventional and sometimes forbidden methods of treatment. Separate attention requires study a level of social and hygienic culture of the population and infection diseases caused by a lack of proper sanitation. According to the World Health Organization (WHO), almost 90% of the population does not have proper toilets. This leads to a high incidence of infections associated with contaminated water, such as diarrheal diseases and bilharzia/schistosomiasis. Due to their humid tropical climate, mosquitoes are a constant threat in Ghana, and malaria is the leading cause of death (among 900 people, on average one dies from malaria). Other diseases transmitted by insects include sleeping sickness and river blindness. In Ghana, the incidence of HIV / AIDS is lower than in other parts of Africa. It is estimated that about 260,000 people live with this disease - about 2% of the population. Each year, HIV / AIDS accounts for 18,000 deaths, and 160,000 children have lost one or both parents from the disease.

Thus, the most difficult is the problem of a high level of infectious diseases. So among the causes of death, HIV / AIDS, tuberculosis, malaria, acute respiratory infections and other infectious diseases are dominant.

Conclusions. The current problems of preventive medicine in Ghana are ineffective work of health services, inadequate financial help to population and hospitals, lack of sufficient medical and preventive care, national traditions, low cultural level of the population, which leads to the spread of dangerous infectious diseases.

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FACTORS OF FORMING MYOPIA IN ADOLESCENT AGE

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Introduction. The problem of myopia is greatly increasing these days. And it has great relevance especially among children and adolescent. We used to think that this disease was caused by the genetics, a habit of reading a lot, a long time spending at the computer and smartphones using. The purpose of our study is to identify the main factors in the formation and development of myopia and develop recommendations that would help to avoid this problem.

Materials and methods. Our study was based on the works of some scientists:

- Nina Jacobsen (Glostrup University Hospital in Copenhagen, Denmark), who investigated the influence of genetics on the formation of myopia;
- Ian Fleckcroft (University Children's Hospital in Dublin, Ireland) - he tried to understand the influence of the habit of reading on the development of myopia;
- Scott Reed (Queensland University of Technology, Australia) and Chi Luu who founded a theory according to which artificial light cause myopia.

Results of research. According to studies repeatedly conducted in Europe, Australia and Asia, a direct addiction was found between the presence of children on the street and the development of myopia. This dependence is explained by the influence of artificial light. Scientists believe that the cause of it is dopamine, produced directly in the eyes. It prevents the deformation of the eyeball under the influence of artificial light. As you know, green and blue light waves focus on the front surface of the retina, and red focus on the backside. Naturally artificial light is closer to red than sunlight. Thus, when a person is under artificial illumination, signals are sent to the brain that the image is not being focused on properly and the eyeballs receive the stimulus to "grow" and as a result of this mechanism the myopia develops.

Also, development of myopia can caused by how much the visual load is intense at close distances (reading, working at the computer, etc.). If the ocular muscles that responsible for focusing vision at close distances, long remain tense while doing work, they cannot longer completely relax when they look afar, when their tension is not required. As a result, the eye is constantly in a stressed state, which adversely affects the ability of the eye to accommodation.

Conclusions. As a result, we can say that the main risk factors for the development of myopia are a long time spent at home under artificial lighting and regular prolonged eye strain.

Focusing on this, we can do recommendations for the prevention of myopia:

1. Perform educational work during daylight hours, and also limit the visual load as much as possible under artificial illumination (reading, writing);
2. Visit an ophthalmologist every two years;
3. Regular walks in the fresh air;
4. Normy work at the computer by time according to hygiene standards:

5 y.o.	15-20 min. per day
6 y.o.	25-30 min. per day

7-9 y.o.	1 min. per day
10-12 y.o.	1 h 20 min. per day
13-14 y.o.	1 h 40 min. per day
15-16 y.o.	2 h per day

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THE "SINIY KYT" GAME AS THE WAY OF MANIPULATION OF TEENAGERS' PSYCHOEMOTIONAL CONDITION

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Introduction. Puberty is a responsible stage of a human's psychological and personality development. Precisely in this age self-consciousness and ability to environmental analysis are formed as well as the interest to distracted problems. Teenagers are the risk group by emotional reactions. If a teenager finds himself on emotionally uncomfortable condition he seeks compassion and tries to draw attention. If not found from his closest friends and relatives, he disappears in social networks. Teenagers are curious, looking for exposure all the time, want to know as much as possible from the environment, but because of lack of experience he or her can't foresee, perceive or just be precautious about the consequences of what he's doing. It may lead to death issues.

The aim of this research is to draw forth the most vulnerable aspects of teenager's psychoemotional condition, as well as the most successfully way used for manipulating his fragile personality and searching for an answer on the question «What or how can a kid make the last step in his life?».

Materials and methods. As a research subject we considered the "Siniy Kyt" game, which became popular in social networks 3 years ago. Its participants were teenagers aged from 11 to 19, aiming on committing suicide as a final result. We conducted analysis of the tasks the teenagers received (to draw a blue whale on their arms, to sit on the edge of the roof legs down etc.), of manipulation methods (watching spooky videos at the night) and frightening children if quitted the game (threats to bring down the relatives) and finally defined the reasons why teenagers took part.

Results of research. In our opinion, the reasons of popularity of this game are as follows:

- lack of parental love and attention;
- socially disadvantaged families;
- unshared love;
- courage, curiosity and personal self-confidence, that is at anytime there's an opportunity to quit the game.

Teenagers' personality is drawn to such type of a game mostly because of loneliness and bad relations between closest friends and relatives, but in the same time doesn't want parents to die, so is very frightened to abandon the game all by himself. Being in a depressed condition, maintained by scary videos, pressuring music and disrupted sleep, infant personalities can't resist the counselors.

Conclusions. A teenager with unstable psychic, suffering from impossibility to live his emotions in reality, seeks more simple ways of solving problems, which often leads to suicide. Therefore, any person could use teenage' problems on his own purpose in view of their imperfect and unformed personalities as they are.

Gaynutdinova A.

PROFESSOR M.D.PYLCHYKOV: MEDICO-LEGAL EXAMINATION OF HIS TRAGIC DEATH

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Introduction. The task of forensic medicine is help to law enforcement authorities to clarify the causes of death, justifying whether the victim was able to put himself a mortal wound, make a conscious action and how long. Find out how could seriously wounded a man who committed suicide by firing from a revolver in the area of the heart to do targeted deliberate actions and understand that suicide or murder occurred the death of Professor M.D.Pylchykova.

Materials and methods. The study based on the books of records from 1908 stored in the Museum of the History Department of Forensic Medicine Kharkov national medical university and Kharkov regional bureau of forensic-medical examination. Due to the properties of normal anatomy, physiology and pathophysiology of human research and analysis done embalmed hearts professor M.D. Pylchykova drug that also kept in the museum of the department.

Results of research. During the study, the drug we found a gunshot wound resulted in a through ball pass through the lower part of the right ventricle. Due to anatomical and physiological properties of cardiovascular circulation estimated that cardiac tamponade was not penetrating wound area pericardium was broken twice. The left ventricle some time after the injury could not work normally because the operation was not affected, the main leaders of the heart not affected, blood circulation going, cortex continued to be provided by blood. These data suggest the possibility of double interpretation of the results of the tragic event.

Conclusions. Numerous studies indicate that it is impossible to assert or deny that Professor Pylchikov could not shoot himself in to his own heart, put the gun on the table, lie flat on the bed, cross his arms and die for fingerprinting and gas wipes fingers professor not holding .

Ivanova A.

EVALUTION OF STUDENTS' PHYSICAL ACTIVITY

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Introduction. The state of students health is a relevant problem for the modern society (is being a public concern for the modern society). Priority is not just students' physical development and acquired various motor skills, but formation person's physical culture, upbringing need for a healthy lifestyle, orientation to consciously strengthening health, including daily exercises. Recent characteristic features of modern life activity processes throughout life in the main weaken health, and only few individuals can strengthen it. According to the Ministry of Health of Ukraine, no more than 15% of schoolchildren are practically healthy, more than 50% have functional abnormalities, and 35% of students have chronic diseases, most of which are acquired.

Materials and methods. The task we've set for assessing students motor activity at the Kharkov National Medical University had been solving on the basis of sociological study materials. It was rated according to indicators characterizing physical culture and sports motives, needs, types and forms of motor activity, involvement in physical culture and sports activities, and the amount of it.

Results of research. According to sociological survey 37.7% of respondents regularly do physical exercises off-hour, and only 35.6% are members of sports sections. During the study there were found indicators to decrease level of motor activity and interest in physical training among students of different terms of study. 47.5% of first-year students, 41.8% of second-year students and 36.5% of third-year students do regular physical exercises out of studies.

Conclusions. Many problems of students sports education could be solved if there was a continuity of physical education in the general education school, secondary professional and higher educational institutions. Surveys conducted among students of our university allow us to conclude that the leading motive of students sports and athletic activity, regardless of age and sex, is the improvement of health (78.5%). Then follows the desire to learn how to manage ones body (66.5%) and acquire a beautiful figure (64.8%). Social instability in modern society, the economic crisis, and the insufficient effectiveness of the domestic health system cause a deterioration in health, increase in morbidity, decrease in the psychophysical potential of almost all sex and age groups of the population of Ukraine, which is interpreted, including students environment.

Katelevskaya N., Gonho M., Emeanu M.

LIFESTYLE AS A RISK FACTOR FOR THE DEVELOPMENT OF NON-INFECTIOUS PATHOLOGY

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Introduction. WHO estimates that about 70% of all deaths in the world are caused by the development of non infectious diseases in people. About 15 million people per year die at the age of 30 to 70 years. Among premature deaths, 85% is in developing countries, including 41% in low-income countries, where the likelihood of dying from chronic diseases aged 30 to 70 years is four times higher than in rich countries. The vast majority of non-infectious diseases are cardiovascular diseases, cancer, diabetes and chronic respiratory diseases. The aim of our work was to study non-specific methods of preventing non-infectious pathology.

Materials and methods. Study and analytical processing of literature data.

Results of research. WHO experts argue that non-communicable diseases are based on the identical risk factors: smoking, alcohol abuse, unhealthy diets and low levels of physical activity.

Smoking is the second in all countries of the world the reason of death and disability. More than 1.1 billion people, or one in five adults, currently smoke tobacco, resulting in an estimated 7.2 million deaths each year.

According to WHO estimates, about 3.3 million people die from harmful use of alcohol every year around the world. Alcohol can kill slowly (cirrhosis and cancer). The consequence of drinking alcohol is also a major risk factor for cardiovascular disease. Alcohol can quickly kill, and sometimes instantly, when it contributes to traffic accidents, injuries, poisoning, violence, violent crime and suicide. The use of alcohol can lead to the development of alcohol dependence and a number of neuropsychiatric disorders.

Abnormal diet, excessive amounts of calories consumed, disbalance of nutrients are the leading factors in the development of diabetes and alimentary diseases.

It is well known that regular and adequate physical exercise shed the risk of hypertension, coronary heart disease, stroke, diabetes and certain cancers, including breast and colon cancer. Physical activity also reduces the risk of falls and fractures of the hip or vertebrae and is fundamental to energy balance and weight control. In addition to its role in the prevention of these conditions, evidence that physical activity can reduce depression and help preserve functional ability in aging populations. At the same time, all countries experience a decrease in physical activity, especially in low- and middle-income countries. Globally, about 23% of adults and 81% of adolescents do not meet WHO levels of physical activity.

Conclusions. The data obtained make it possible to assert that in many cases the development of noncommunicable diseases is a consequence of non-compliance with the basic rules of a healthy lifestyle.

Katelevskaya N., Nyamekye F., Kassim I.

THE INFLUENCE OF DIGITAL DEVICES ON THE HEALTH OF YOUNG PEOPLE

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Introduction. Health of young people - is the most important characteristic of the welfare state and society. This early detection of negative impact of various environmental factors is way to the preservation of physical and mental health of the nation. Particular attention is paid on the digital devices, which in recent years have become an inherent part of modern society. Their combined impact on the health of young people able to lead to the emergence of physical and mental illness. The purpose of our work was to study influence of digital devices on the health of young people.

Materials and methods. Theoretical analysis of literature.

Results of research. The latest to data scientists more than 95% of the population regularly use tablets, smart phones or other digital devices. Risk factors for adverse effects of digital devices on human health include physical parameters due to the physical characteristics of digital devices and non hygienic recommendations for usage of digital technology.

Currently the largest common negative effects of digital devices for human health «computer stress syndrome». Symptoms are varied and numerous. They are grouped on the basis of exposure to one or another human body, malaise, eye diseases, violation of visual acuity deterioration concentration and performance (very often the result of visual disturbances, pain in the muscles in the lower back, the hips, the legs. also very common is «computer vision syndrome», which is characterized eyestrain, headaches, blurred vision, dry eyes, neck and shoulder pain.

Experts draw attention to the so-called «factor awkward postures». As a characteristic feature of digital devices is the property poses. This constantly tense muscles, leading to fatigue; promotes pathological curvature of the spine, thoracic kyphosis, lordosis flattening the cervical and formation of scoliosis. Wrong location screen digital gadgets height is the main cause stoop. Working with a monitor at the wrong angle, due to tension causes cervical degenerative disc disease risk appearances and in more severe cases - paralysis.

Intensive work with the keyboard causes pain in the elbows, forearms, wrists, hands and fingers in the hand. Intense and prolonged use of keyboards during computer work can cause serious illnesses hands. The complex of these diseases, received the title "repetitive stress injuries" includes diseases such as tendinitis, epicondylitis carpal tunnel syndrome. Working with the keyboard is the cause of 12% of occupational diseases caused by repetitive movements.

Conclusions. Thus, the mode of using digital devices and their specific characteristics can cause pathological conditions of varying severity.

Kindruk M.

HYGIENIC BASES OF THE INFLUENCE OF EDUCATIONAL ACTIVITY ON HEALTH STATUS OF SCHOOLCHILDREN OF GENERAL SCHOOL

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Introduction. School age is the one of the main stages in life. During this stage all organs and systems of organism are formed and adapted to environmental factors. During this period there is an influence of various factors on the health of schoolchildren. Health depends on schoolchildren learning conditions, accommodation, nutrition, physical activity, proper load duty and rest and many other factors. The negative impact of these factors can lead to physical illness or psycho-emotional disorders, can be cause of restriction physical, intellectual and reproductive abilities. It is necessary to examine hygienic point of view of the impact of training activities of general school pupils on their health status and to identify the main factors of school environment to reduce their negative impact on the health of schoolchildren.

Materials and methods. Under the supervision were 1,000 pupils from general schools among 14 regions of Ukraine. The study was conducted in natural hygienic experiment using questionnaires and take place confidentially. Issues related to the success of schoolchildren education, the availability of free time, additional educational classes, safety of finding pupils in general school or safety during the performance of practice. The data were processed by Excel tables with using of variation statistics.

Results of research. During the research were received results: 39.5% have lack of free time during school day; some free time have 50.4% of pupils and almost always have free time 10.1% of pupils. Data analysis of the questionnaire showed that 47.3% of pupils feel in school always safe, 42.4% of pupils almost always feel safe and feel safe sometimes in educational establishments 10.3%. Most schoolchildren feel safe while performing production practice always and almost always (58.2% and 31.6%) and a small percentage of them who occasionally and rarely (6.9% and 1.2%) feel safe while performing production practice. It was also found that on additional training activities 31.8% of schoolchildren spend two and more hours daily, 38.9% of schoolchildren spend one hour 2-3 times per week and 29.3% of schoolchildren are not involved at all.

Conclusions. Results of the research indicate that the health status of schoolchildren depends on the nature of the organization of training activities, the availability and proper use of free time, the safety of the pupils in the school or during their performance practice. Data analysis showed that pupils do not have much free time during regular school day, indicating that excessive workload, decreased physical activity, sleep duration, the presence of anxiety that affects the health of schoolchildren. The lack of these characteristics can affect their emotional state and lead to changes in their functional state. It is necessary to strengthen and support the health of schoolchildren, enhance the protective properties of the organism.

Knigin M., Chirva A., Katelevskaya N.

ACTUAL PROBLEMS OF STRESS PREVENTION IN UPPER-GRADE STUDENTS

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Introduction. The mechanism of the reaction of the human body to the impact of stress is very complicated. In general, it is a combination of different types of adaptation reactions. However, with prolonged and constant exposure to stressful factors, the physiological reserves of the body are depleted, which ultimately leads to disruption of the mechanisms of protection from stress and the development of various acute and chronic diseases, both mental and somatic. Knowledge and neutralization of the most significant factors leading to the development of stressful reactions, allows to minimize their harmful effects on the body of the adolescent.

Materials and methods. Analysis and synthesis of information sources.

Results of research. Results of the study. Analysis of the literature has shown that the problem of the influence of various stressors on students in the upper grades is of considerable relevance.

As the results of the study showed, students in the upper grades experience quite significant psycho-emotional loads. This situation is due to increased demands on the results of training, forthcoming examinations, the transition to a new social environment, and physiological changes, the development of new social roles, the fear of not meeting expectations of high results from teachers and parents. The nervous system of a teenager under the influence of stress factors is in constant tension. As a result of such an impact, under the condition of adequate correction becomes the development of stress disorders. For example, the syndrome of chronic fatigue, social disadaptation, emotional lability, neuroses, depressive states and and others. In the case of chronic diseases in adolescents, stress can lead to an exacerbation of the underlying disease. In rare cases, students experiencing chronic stress as a result of increased training loads and mental pressure from others, not only lose interest in learning, but also commit suicide attempts.

Thus, the factors of the school environment that can lead to the development of stress in high school students can be divided into several groups: conditioned by the peculiarities of learning and subsequent control, environment, characterized by the peculiarity of the student's relationship with family members, friends and other members of the social environment, personal emotional features of perception , Physiological factors and others.

Conclusions. Knowledge, timely identification and correction of the negative impact of various stress factors on the health of high school students contributes to the better adaptation of schoolchildren to increased training loads and the prevention of the development of mental and psychosomatic diseases.

Litovchenko O.

ECOLOGICAL ASPECTS OF MIXED EFFECT OF CHEMICAL AND PHYSICAL FACTORS

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Introduction. Increased man-caused loads on the biosphere are a feature of the current ecological situation. From the viewpoint of the scale of negative consequences on the environment, the most unfavorable is a simultaneous action of chemical and physical factors. Chemicals migrate from one environment to another and over long distances; they are transformed in the environment with formation of more toxic and dangerous compounds and their subsequent ingestion. Electromagnetic radiation has acquired the significance of a global physical factor of environmental pollution with an aggressive impact on biological objects. The above factors can affect ecosystems in combination with the temperature factor, in particular with positive low temperatures. The purpose of these experimental studies consisted in revealing peculiar responses of the warm-blooded organism to the adverse influence of isolated and mixed effects of chemical and physical factors in conditions of cold stress.

Materials and methods. The studies were carried out on mature white male rats in conditions of a subacute laboratory experiment (1 month). The animals were exposed to electromagnetic radiation (frequency 70 kHz at a voltage of 600 V/m) and a chemical on the example of a cutting emulsion of "Typol" or "Trim" brands (5,000 mg/kg) under conditions of cold stress ($4\pm 2^{\circ}\text{C}$).

Results of research. The results of the experiments demonstrate a more pronounced mixed effect of physical and chemical factors on the organism in conditions of cold stress versus their isolated effect. An increase of adverse effects was detected by the criterion of haematological changes and morphological changes in the internal organs. It can be considered that the mechanism of enhanced harmful effects lies in the reactions that arise in the body, particularly in cold stress, lead to a change in the general reactivity of the organism and result in its increased sensitivity to the effects of a complex of factors.

Conclusions. An enhancement of negative effects of physical and chemical factors in their mixed action necessitates consideration of these effects when working out methods for determination and regulation of anthropogenic loads on ecosystems and subsequent prediction of the state of biological objects under the influence of environmental factors.

Makarenko N.

MANIFESTATION OF MAIN MOTIVATION PARAMETERS AT SENIOR PUPILS OF SECONDARY SCHOOL

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Introduction. Education at school, college, university is a complex mechanism for the "personality's building-up". For sure, any design includes many subsystems, relationships, rules, which form the basis for the rise of various "failures" that violate its basic functions. One of the problems which often occurs among students is the gap between claims and real opportunities. People with a realistic level of claims are distinguished by their confidence, commitment to success, greater efficiency compared to those people whose level of claims doesn't agree with their abilities and capabilities. Consequently, the level of claims is closely related to one's self-esteem and motivation of success in various types of activities.

Materials and methods. For examination the levels of different directions of motivation it was used the modified form of questionnaire by V.K. Gorbachevsky. It helped carry out diagnosis of components of personality motivational frame and comprises 42 questions integrating into 15 components which are classified into 4 groups, following the response handling. The research study was performed at Kharkiv Secondary School number 123. 20 students of 9 – 11th Forms, aged 15 – 17, were asked.

Results of research. After analyzing the first group of these components which are regarded as the center of the motivational sphere of personality, it was founded that 75 % of schoolchildren had a medium level of intrinsic motive and 25 % - a high level. According to results of cognitive motive estimation which characterizes person's attitude to results of its activity, it was observed that 35 % of respondents have medium level of manifestation, and 65 % - high. By avoiding motive results were followed: 5% of schoolchildren showed a below medium level, 35 % - medium, and 60 % - high. By competitive motive: 10 % of respondents shows low level, 20 % - medium, 70 % - high. 60 % of pupils have medium motivation to change current activities, and 40 % - high motivation. Self-esteem motive which is expressed by person's desire to set more and more complicated purpose in daily life, for 10 % of respondents was estimated as low, for 25 % - as medium, and for 65 % - as high. The second group consists of components associated with the solution of complex tasks. They are as follows: manifestation of strong will (10 % of pupils – low level, 60 % - medium level, and 30 % - high level); estimation of attained results (10 % - low level, 80 % - medium level, 10 % - high level), potential assessment (5 % - low level, 30 % - medium level, and 65 % - high level of this motivational direction). The third group contemplates assessment of the student's performance. The study showed that expected level of performance results for 15 % of respondents was low and for 85 % - medium. The fourth group of components considers causational factors of the relevant activity. It includes such components as "consistent pattern of results" (which expresses the subject's understanding of his (or her) own abilities to achieve the set goals), and "leadership role" (which shows individual's manifestation of initiative and inventiveness in solving

set tasks). At first of them most of pupils show medium (50 %) and high (40 %) level of display, and only 10 % - low level. In regard to leadership role most of senior pupils have high level of motivation (65 %) or medium (35 % of respondents).

Conclusions. Thus, the study has demonstrated that the majority of adolescent students have a high level of enthusiasm for job, fear of gaining low results of any activity, and potential assessment. However, at the same time, we observe a low level of choice of task complexity, degree of manifestation of strong will in achieving complex tasks, and expected level of results. Such results of motivational sphere assessment should be taken into account with the aim to hold school activities and to prevent depressed state of the students.

Manpreet Singh, Mbamalu Chinyere Margaret, Katelevskaya N.

PREVENTION OF STRESS IN STUDENTS

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Introduction. The problem of stress today is one of the most urgent in the world of psychological science. Particular attention is drawn to the stress that arises from the impact of new living and learning conditions. Students have to overcome difficulties for the first time, learn new roles and modify old ones, adapt to new conditions of life. But not all students are ready for numerous problems and their solutions. Stress has an impact on the physical health of the body, on mental processes and on the socio-psychological functions of a person, which affects all spheres of human life. The purpose of our work was to study methods of preventing the development of stress in students.

Materials and methods. Theoretical analysis of literature on the problem of stress prevention in students is using.

Results of research. The results of the research shows that about 86% of students are periodically or constantly in a state of stress. What directly affects the health of students and the results of their education. The main factors leading to the development of stress among students are: lack of sleep, not performed or performed incorrect tasks, a large number of passes on an object, insufficient knowledge of the discipline, poor performance in a particular discipline, the complexity of adaptation to the social environment, the conditions of residence, Language and cultural environment. The study of scientific literature allowed to identify the main methods of stress prevention in students: the correct organization of the training and rest regime, the correction of nutrition, the use of methods of group and individual psychoprophylaxis.

Conclusions. Consistent and timely prevention of stress among students is an indispensable component of the organization of student life. Prevention of stress can improve the student's adaptation to the social environment, the requirements of the educational process and significant psycho-emotional stress.

Mohamad Sultan

MULTIPLE SCLEROSIS FREQUENCY IN ISRAEL'S DIVERSE POPULATIONS

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Introduction. Multiple sclerosis (MS) occurs in young adults and infrequently appears in childhood.

Aim: To determine the incidence of MS and describe the clinical, cerebrospinal fluid (CSF) and magnetic resonance imaging (MRI) findings at onset of MS in children in Israel.

Materials and Methods. Incidence and case-specific data were obtained through the MS Center Database and Israeli Health Statistics Census Data over 15 years, from 2000 to 2015, and compared between patients with childhood (< 12 years), juvenile (> or = 12 years, < or = 18 years) and adult (> 18 years) MS onset.

Results of research. Of 1129 eligible MS patients, we identified 10 (0.89%) with childhood-onset MS, 74 (6.55%) with juvenile-onset MS, and 1045 (92.56%) with adult-onset MS. There were 0 to 3 incident childhood cases/year, leading to an annual incidence of 0.1/100,000 among Israeli children; the incidence of juvenile and adult MS was 2.6 and 5.4/100,000, respectively. Neurological presentation among children with MS was optic neuritis, motor weakness or brainstem involvement. CSF oligoclonal immunoglobulin (IgG) were positive in 62.5%. The most frequent MRI finding was the occurrence of > or = 3 periventricular white matter lesions followed by corpus callosum lesions, with 71% co-occurrence. Cervical and thoracic lesions occurred in 33% and 43%, respectively. Time to second neurological event ranged from 0.3 to 4.2 years and none of the patients with childhood MS reached EDSS = 6.0 within a mean follow-up period of 8.4 years.

Conclusions. Childhood-onset MS is rare, with an incidence of 0.1/100,000 Israeli children. Childhood MS does not differ significantly from juvenile and adult-onset MS in terms of clinical, laboratory and imaging findings.

Ogbole E.

EPIDEMIOLOGICAL CHARACTERISTICS OF RABIES IN NIGERIA

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Introduction. Rabies is a viral zoonotic disease, resulting in a fatal outcome, transmitted primarily by the bite of rabid carnivores, which affects all warm-blooded animals and human.

Nigeria is known to be endemic for rabies. The aim of this abstract is to review the incidence and rate of human death due to rabies across various health institutions in Nigeria and evaluation of activities and efforts to problem solving.

Materials and methods. Case reports on Rabies from 10 states in Nigeria in 2016 were studied.

Results of research. A total of 78 deaths were recorded in 2016 due to rabies and all cases were confirmed only by clinical manifestations. Most reported cases of rabies death were reported in Northern and Southern Nigeria - 45 % and 35 % respectively. The analysis of the dynamics of the annual cases of rabies deaths revealed that the majority of cases were reported around April and September, corresponding to the dog breeding seasons in Nigeria. Thus, dogs often are the source of rabies infection in Nigeria. Analysis of social and age groups of risk revealed that, the incidence of rabies was highest among poor and uneducated people, and young children, especially under the age of 10 years in the rural areas.

Conclusions. It can be concluded that the average number of reported rabies cases is much lower than expected. The number of reported cases of rabies in Nigeria is low due to poor diagnostic facilities and inadequate veterinary establishments, poor standard of record keeping, lack of coordination of disease reporting system, lack of proper education of the population about rabies and inadequate funding of research in areas of wildlife rabies.

To improve the epidemic and epizootic situation of rabies in Nigeria, it is necessary to intensify sanitary education among the population about the need to seek medical help for any damage to the skin and mucous membranes after contact with animals, as well as the possible consequences of abandoning the prescribed anti-rabies treatment, because timely specific immunization anti-rabies immunoglobulin and/or vaccine is the only way to prevent rabies in humans after contact with a sick animal. Veterinary specialists should monitor the circulation of the rabies virus among animals and carry out mandatory vaccination against rabies animals, including dogs in both urban and rural areas.

Ogunyemi Opeyemi Oluwafunmilayo, Sesay-Tlahyoni A.

EPIDEMIC SITUATION OF HEPATITIS B VIRUS INFECTION IN NIGERIA

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Introduction. Hepatitis B virus (HBV) infection is a serious public health problem, with two billion people infected worldwide and 350 million suffering from chronic HBV infection. Globally it causes about 1,2 million deaths per year due to its various complications including chronic hepatitis, liver cirrhosis, and liver cancer, it determines both the medical and socioeconomic significances of this infectious pathology. This study aimed at identifying the prevalence and risk factors for Hepatitis B virus infection in Nigeria and evaluation of activities and efforts to problem solving.

Materials and Method. The study and analysis of scientific medical literature data on the prevalence of Hepatitis B virus infection in Nigeria in modern conditions was conducted.

Results of research. According to the World Health Organization (WHO), the main burden of Hepatitis B viral infection falls on the Region of Africa and the Western Region. The prevalence of Hepatitis B in Africa is 6,1 %, this pathology affects about 60 million people. Hepatitis B infection is hyper - endemic in Nigeria. In children, the infection occurs early in life and studies report hepatitis B surface antigen (HBsAg) prevalence rates of 20 %, while in adult populations, the rate varies from 10 – 38 %. In adult the mean age was 32 years, the highest HBV infection rate occurred in 25 - 29 year age group. The reasons for the spread of Hepatitis B are the lack of awareness of the population about the possible infection associated with the cost of laboratory diagnosis of Hepatitis B, the high cost of the Hepatitis B treatment program, the lack of prevention of mother-to-child transmission during labor, unprotected sex with multiple sexual partners and early age at sexual debut were independent risk factors for HBV infection.

Conclusion. Hepatitis B virus infection is of high endemicity in Nigeria. The Government of Nigeria has made significant efforts to control the spread of Hepatitis B viral infection. Nigeria has launched the World Hepatitis Day since 2015. Vaccination against Hepatitis B (the birth dose of Hepatitis B vaccine) is introduced into routine immunization schedules. Mass screening for hepatitis B and C was conducted. Programs for early diagnosis, treatment of infected pregnant women, immunoprophylaxis for exposed newborns and surveillance for those with chronic infection is essential were developed and conducted. Effective treatment is also available for people with chronic hepatitis B infection, although for most people such treatment needs to be lifelong. Health education programs for population on prevention and control measures must be developed and introduced into health care practice.

Ostapenko D., Halimov E., Nagornyi I.

HYGIENIC ASSESSMENT OF THE MENTAL CAPACITY OF THE PUPILS STUDIED AT ODNOROBIVSKIY PROFESSIONAL AGRARIAN LYCEUM IN THE COURSE OF PSYCHOLOGICAL ADAPTATION TO THE LERNING CONDITIONS

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Introduction. Mental capacity depends on the intensity of the function of sensory systems that perceive information, from the state of memory, thinking, and the expression of emotions.

Aim. Hygienic assessment of the mental capacity of the pupils studied at Odnorobivskiy professional agrarian lyceum in the course of psychological adaptation to the conditions of studying by assessing the functional status of their organism using corrective test.

Materials and methods. The study of the dynamics of mental capacity, stability of attention, accuracy factor was carried out by the corrective method using the tables of A.G. Ivanov-Smolenskiy, and with the subsequent calculation of the exponents by the formulas of P.G. Whipple. Research group consisted of 15-18 years students, which

within 3 years studied agrarian specialties at Odnorobivskiy professional agrarian lyceum (Kharkiv region, Ukraine): "mechanic for the repair of agricultural machinery and equipment" (1 year); "tractor driver - agricultural engineer (forestry production)" (2 year); "driver of vehicles" (3 year).

Results of research. The experiment showed, that coefficient of accuracy did not change in 1 year (0.95 cu) and was the same at the beginning of the year and at the end. At the second year, this indicator is slightly increased at the beginning of the academic year (to 0.97 cu.), but by the end of it, again decreased (to 0.95 cu), and remained the same. The coefficient of mental efficiency was 686.35cu. At the end of the year, it increased to 749.83 cu. In the second year students, the coefficient decreased: at the beginning of the year, it was 703, 50 cu, and in the end, it was already 676, 73 cu. At the beginning of the third year, the coefficient slightly increased, but at the end of the academic year, it was reduced to 669.04 cu. The waviest was the dynamics of the main indicator of mental capacity, the coefficient of persistence of attention. At the beginning of the first year it was 37.89 cu, then it increased to 41.90 cu. On the 2 year the beginning of the indicator of 45.38 cu, and in the end - by a decrease to 24.20 cu. The beginning of the third year of the specialty "driver of vehicles" was 53.29 cu, and the end of the year - significant decrease to 35.12 cu.

Conclusions. Reliable reduction of such indicators as the coefficient of accuracy and the coefficient of stability of attention at the second year of training, allows assigning this time to the period of risk, which requires the introduction of psychohygienic measures to correct the adaptation process.

Ponomaryova A.

IMPORTANCE OF EXTRA-CURRICULAR ACTIVITES FOR SELF-IMPROVEMENT OF HIGH SCHOOL STUDENTS

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Introduction. Extra-curricular activities of high school students have great educational and learning importance. They are aimed at the use of educational materials in life situations, it creates conditions for the realization of abilities, expands the methods of activity, and encourages self-education and self-improvement. Extra-curricular activities should satisfy the constantly changing interests of adolescents, create ample opportunities for doing what they like.

Materials and methods. Such methods as psychological testing, interview, conversation, screening test can be used to study the influence of extracurricular activities on the way of life of high school students.

Results of research. Modern society needs well-educated, enterprising, all-round individuals who can make decisions quickly and confidently in a difficult situation. To meet such requirements, it is necessary to expand schoolchildren activities both in classes and during after-hours. During growing-up years, the control over one's behavior and emotions is increasingly developing, and, when engaging in activities, senior pupils are guided by their own points of view and experience. Therefore,

educational work carried out after classes should help supplement and consolidate skills and abilities obtained during learning activities. The purpose of this work is to form moral, spiritual and aesthetic values of senior pupils, to assist in determining the abilities for one or another type of activity, to develop social activity. Involved are various forms of students' organization: hobby groups, sports classes, lectures or talks, excursions, etc. Team work of high school students has great advantages. Firstly, group experience helps solve interpersonal issues and prevents from becoming self-absorbed. Secondly, team work simulates such vital situations in which a student can test his knowledge and skills. Various forms of personal education create conditions under which each senior student can efficiently accumulate his or her own personal experience. They also promote independent perception of universal human values; give students the opportunity to show their initiative, creativity, independence; inspire their natural self-expression and self-realization, which, in turn, facilitate the full personality development.

Conclusions. At the present time, afterschool activities are considered to be the main links in the continuing educational process of upbringing an all-round personality, creating conditions for development and maintenance of abilities in science, technology, art, etc. At the same time, creation of conditions for free choice of the activities, which a student is interested in, paves the way for manifesting one's personal abilities.

Renea Jenkins A., Owolabi Oluwatobiloba M., Ndeilenga L.
PREVENTION OF DEPRESSION IN YOUNG PEOPLE

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Introduction. According to the literature, depression is prevalent all over the world: according to various estimates, 350 million people suffer from it. Depression is different from normal mood changes and short-term emotional reactions to problems in everyday life. Depression can be a serious health problem, especially if it is prolonged and takes a moderate or severe form. In the worst cases, it can lead to suicide. Every year, more than 800,000 people die as a result of suicide, the second leading cause of death among young people.

The aim of our work was to study methods of preventing depression in young people.

Materials and methods. A study and analytical processing of various information sources was carried out.

Results of research. The main cause of depression in young people can be called a situation of chronic stress. The main factors are: asthenic conditions during severe illnesses, divorce, death of someone from close relatives, posttraumatic syndrome, violence, psychological, physical or sexual, inferiority complex, hormonal changes in the pubertal period, unsuccessful sexual experience, features of physical development, chronic psychotraumatic effect, a sharp change in lifestyle, chronic pain syndrome, taking medications, drinking alcohol or drugs.

One of the most severe consequences of depression is suicidal actions. According to statistics, the incidence of suicidal behavior among young people has doubled over the past two decades. At 30% of people aged 14 - 24 years there are suicidal thoughts, 6% of boys and 10% of girls commit suicidal actions. Of the total number of suicides, 90% is committed in a state of stress and only 10% - without psychotic disorders.

Prevention of depressive disorders in young people should, above all, be aimed at identifying and eliminating stress factors that can lead to its development. In this case, a significant role is played by the state of adaptive-compensatory mechanisms of regulation of the organism. The following methods can improve their work: proper rest and sleep, regular physical activity, healthy diet and individual psychophylaxis.

Conclusions. Prevention of depressive disorders is a set of measures aimed at detecting depression, the factors that cause it, correcting the negative impact of environmental factors, increasing the adaptive capacity of the organism.

Tatenda Tekere, Tinuola Olajide

POPULATION CENSUS IN ZIMBABWE

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Introduction. Known as the best country in Africa by some people (mostly Zimbabweans), Zimbabwe lies in the southern part of the African continent bordered by four countries on each cardinal point. On the north side of the border Zimbabwe shares a border with Zambia, on the east there is Botswana, Mozambique is to the west and South Africa is on the south border of Zimbabwe.

After gaining independence from colonial rule in 1980 from Britain, the country saw some steady improvements until a recent change in the law by the ruling party in 2000. From 2002 onwards, there has been a drastic decline in the quality of life and economy of the country leading to a decrease in the life expectancy rate and the quality of life.

Materials and methods. Bibliographic method using results of population census taken in 2012.

Results of research. In 2012 the population of Zimbabwe was 13 061239 people. Comparing the results from the last population census taken in 2002, there was a slight increase in the population with an annual average growth rate of 1.1 %. The growth rate is small because the country has economic problems; social and working activity of women has increased over the past 10 years. The proportion of male and female population was 48 and 52percent respectively. The difference between male and female ratio can be explained by the industrial factors, social style of life and migration connected to difficult economic situation. The population was relatively young with 41 percent of the population being below age 15 years which means progressive type of age structure. About 4 percent of population is above age 65 years; as a result of the population of the country is demography young. The life expectancy of the country's population was calculated to be 43 years of age as a result of poor style of life and poor medical health services.

Conclusions. Generally demographic situation is positive but there is a very bad situation with the life expectancy which is very low. It is important to study in more detail the factors which influence the low level of life expectancy and to observe a healthy style of life and improve the medical services in the country.

Udoh Andikan Effiong

DEMOGRAPHIC STUDIES IN NIGERIA AND ITS EFFECTS ON THE ORGANISATION OF HEALTH CARE

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Research advisor: PhD., assos.prof. L.I. Chumak

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Introduction. Birth rate, Death rate and mortality rate greatly vary in developing countries such as Nigeria. The increasing death rate (14 per 1000 population) which is due to the economic crisis is a major cause for concern. The birth rate is also on the increase notwithstanding the current economic situation which has led to an insufficiency in providing adequate healthcare services for the general population.

Purpose: The importance of demography lies in its contribution to helping government and society better prepare to deal for the issues and demands of population growth, aging and migration. The statistics and predictions resulting from demographic studies can, for example, aid in the development of adequate healthcare school systems, estimate the required funding for senior services and develop workable healthcare systems. A wide variety of social outcomes are impacted by demographic processes and distributions.

Materials And Methods. The analyses derived from demographic studies rely upon a specialized set of models and methods, including population composition studies, life table analysis, simulation and mathematical models, survival analysis and ratios. The data was obtained from the National Population Commission archives recently updated earlier this year.

Results of research. The data we took for analyses shows that in 2017 the current birth rate is 43 per 1000 population which has seen a whopping 10% increase from previous years while the death rate which currently stands at 14 per 1000 population has only seen a 1.5% increase from previous years. However the fraction of infant mortality rate is on the high side- 71.2 per 1000 of population.

Conclusions. Birth Rate, Death rate and mortality rate are important indexes which can show the current growth or decline in a population and must be taken into consideration when organising healthcare services. As we can see from the above findings in Nigeria, It shows that the Birth rate is increasing at a faster level than the death rate, hence we can still see a rise in the general population despite the harsh economic conditions. Thus, more funds should be directed toward the health sector to improve the quality of health services if not a predicted steep decline in population will be inevitable. The high infant mortality rate shows that, vaccinations and increased quality of gynaecological and paediatrics service rendering should be the major priority.

Veera Venkata Akhil M., Ardhi Raj Deepak

INFLUENCE OF ENVIRONMENT ON REPRODUCTIVE HEALTH

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Introduction. Reproductive toxicants may contribute to a spectrum of adverse effects on reproductive health. These effects include menstrual irregularities, early or delayed puberty, infertility, subfertility, early pregnancy loss, fetal death, impaired fetal growth, low birth weight, premature birth, and structural [cardiac defect] or functional [learning disability] birth defects. The impact of exposure to a reproductive toxication may not be immediately evident. Instead, the effects may emerge at key life transitions: for example, when attempting conception, during pregnancy, during development of the embryo or fetus, in the new-born and during the offspring's childhood, puberty, and eventually fertility as an adult. For this reason, it is important to be aware of the potential effects of a substance over a long period of time, rather than only during the period immediately after exposure.

Materials and methods. Exposure to reproductive toxicants: Substance with potential harmful effects on reproductive health are present in water, air soil, dust, food, and consumer products. Individual may encounter these toxicants in the home Community, School or workplace. To result in an adverse effects, a toxicants must come into contact with an individual and enter the body, a step referred to as biological uptake. Biologic uptake is the point at which exposure occurs .

Toxicants enter the body in one or more of three ways: inhalation, ingestion or absorption through the skin. After entering the body toxicants are distributed to various tissues and subject to metabolism and excretion. Toxicants or their metabolites, travel to target organs, such as thyroid, ovaries, or testis, where their exert biological effects. In the same way that all the smokers do not develop lung cancer, every person exposure to toxicants does not necessarily experience adverse health effects. Many factors –in addition to the exposure dose and the concentration of toxicants in the environment – effect whether an exposure ultimately results in a harmful health effect.

Results of research. Mechanism of effects: Some chemicals have direct toxic effects on the reproductive system. Endocrine-disrupting chemicals can exert effects on hormone producing glands, such as the thyroid gland or pituitary, which turns affects reproductive health. Edc's also may have direct effect on the reproductive system.

Conclusions. SAFE LEVELS: Environment expects now are challenging the traditional assumptions about safe levels of toxicants exposure at a population level. Recently, the national academy of sciences stated that based on the extent of multiple chemical exposures individual experience, disease frequency, age status of population, and genetic variability, it is reasonable to assume that exposures to certain chemicals will carry some risk, though that risk may be small or large.



DENTISTRY



**INTERNATIONAL SCIENTIFIC
INTERDISCIPLINARY
CONGRESS**

Demydova P., Kalinichenko M., Zaveruha Y.

PHYTOPREPARATIONS IN TREATMENT OF GINGIVITIS

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Introduction. An increase in the effectiveness of treatment of inflammatory periodontal diseases is the actual problem of modern dentistry. Among medicinal preparations a special place is occupied by drugs of a phytogenesis.

The aim of the study is an assessment of the effectiveness of the use of the treatment and prophylactic drugs for the oral cavity of the elixir-spray "Stomafloor" ("New Life", Ukraine) and the balm-spray based on the phytocomplex "Faucidol" (Lekkos, Ukraine) in complex treatment of patients with gingivitis.

Materials and methods. Elixir Spray for the oral cavity "Stomafloor" contains extracts of propolis, oak bark, yarrow, St. John's wort, calendula, chamomile, turn, thyme, coltsfoot, walnut, etc. "Faucidol" includes leaves of sage, eucalyptus, propolis, chamomile inflorescence, calendula, essential oils of tea tree, etc.

We observed 23 patients aged 19 to 33 years with a diagnosis of chronic generalized catarrhal gingivitis, which were divided into two age-sex equivalent groups including 12 (I, main group) and 11 (group II of comparison) people.

The diagnosis was made on the basis of patients' complaints, the history case, clinical status, hygienic and gingival indexes, analysis of orthopantomograms in accordance with the classification of periodontal diseases. Danilevsky (1994).

All patients's local status were corrected, selection dental hygiene care products, and training in individual oral hygiene. Patients of both groups received a basic treatment of chronic generalized catarrhal gingivitis according to the "Protocols for the provision of dental care". After individual oral hygiene, locally for irrigation on the gum, patients from group I used the "Stomafloor" elixir spray, and patients from group II - "Faucidol" balm spray. One session included 2-3 sprays within 1-2 seconds, irrigation was repeated 3-4 times a day in both groups.

Results of research. The results of the study showed that in both groups, positive dynamics was observed in 100% of patients after 2-3 treatment sessions: reduction of hyperemia and bleeding gums, absence of bad breath. In groups I and II, the course of treatment of patients was done in 4-5 procedures. In a clinical examination, PMA indexes decreased from $21.5 \pm 2.7\%$ to $8.04 \pm 1.6\%$, PBI from 1.33 to 0.33 in group I, and in patients in group II - PMA from $23.5 \pm 2.6\%$ to $9.87 \pm 2\%$, PBI from 1.36 to 0.36; The differences are reliable, which can be explained by the various positive effect of the phyto-components of the drugs.

Conclusions. As a result, it is recommended to use phytopreparations "Faucidol" and "Stomafloor" in the complex treatment of chronic generalized catarrhal gingivitis with the aim of improving the periodontal health of the population.

Hammoud Z.

EFFICIENCY OF LASER TECHNOLOGY IN GINGIVAL OVERGROWTH TREATMENT BASED ON CLINICAL AND HISTOLOGICAL ASPECTS

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Introduction. Recently an amazing shift is occurring in dental field. Laser technology breakthrough and has generated a considerable interests among periodontists to perform a range of hard and soft tissue procedures. Erbium laser is one of the most promising laser types for treating hypertrophic gingivitis. However ,the clinical effectiveness of Erbium remains controversial. The aim of the study to assess systematically, clinically and histologically the scientific evidence for the effectiveness of Er,Cr: YSGG laser in treatment hypertrophic gingivitis.

Materials and methods. Electronic database searches of (PudMed/MEDline) from 2010 up to and including December 2016 using different keywords &clinical and experimental studies were included and read. Followed by conducting 8 clinical cases for patients with gingival overgrowth (Grade I) at therapeutic department. The treatment was carried out over 5 months. First: consist of ultrasonic scaling ,oral hygiene instruction,0.2% chlorohexidine mouthwash twice a day for 10 days. Second, gingivectomy was performed using Er,Cr:YSGG (2790 nm) followed by periodontal dressing. The patients were asked to assess pain experience based on questionnaire ,followed by clinical and histological evaluation by biopsy specimen at follow up 7 days , 21 days to assess parameters (Wound healing, postoperative bleeding).

Results of research. Based on questionnaire patients reported as relatively painless and easy procedure. Clinical evaluation results showed 5 cases at day 7 didn't exhibited superior healing , but at day 21 all cases exhibited total healing. But histological examination showed at day of gingivectomy necrotic epithelium, however after 7 days the second biopsy revealed densely fibrous CT with re-epithelization.

Conclusions. Results of cases and systematic review encourages the use of laser therapy is an effective treatment modality in treatment gingival enlargement. Besides it is a better option in terms of wound healing, infection control and reduced post-operative pain and bleeding.

Kolisnyk O.

CLINICAL USE OF DRUGS BASED ON D-GLUCOSAMINE IN THE TREATMENT OF CATARRHAL GINGIVITIS

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Introduction: According to G. F. Beloklitskaya, the prevalence of periodontal tissue diseases among the adult population of Ukraine is 85-96%. The results of statistically reliable data indicated that the highest incidence rate is at the age of 35-44 years and 15-19 years. Glycosaminoglycans (GAGs) are played an important role in the

development of diseases of the periodontal tissues. Mature connective tissue of periodontium contains of mainly sulfated glycosaminoglycans (sGAGs) - chondroitin (4/6) sulfate, dermatan-sulfate, heparan sulfate, heparin, keratin sulfate and hyaluronic acid (non-sulfated GAG). In inflammatory and dystrophic inflammatory processes in periodontal tissues, the disruption of collagen synthesis is accompanied by damage to the structural and functional components of tissues – proteoglycans (PGs), which undergo bacterial hyaluronidases and other factors undergo disintegration. Consequently, the protective function of the connective tissue of the periodontal tissue is violated, which is closely related to the decrease in the number of functional molecules of proteoglycans - sGAGs. These processes are adversely affected the functional state of the barrier mechanisms of periodontal tissues along the pathway of the aggressive parodontopathogenic microflora, which penetrates into the internal structures of the gingival stroma and the alveolar bone. In the future, when a pathological process occurs in the tissues of the periodontal tissue, this predetermines a substantial violation of tissue repair at different levels. In modern periodontology, the most promising approaches are considered with using of natural regulators of physiological and pathological processes that are devoided of any toxic effect on cells and tissues. Sulfated and non-sulfated GAGs are used as natural regulators of physiological and pathological processes in the periodontal tissue. The correct choice of a drug based on GAGs for topical treatment of catarrhal gingivitis is an actual problem and requires continuation of the investigation. The goal of the investigation is to increase of efficiency and clinical substantiation of the new concept of local treatment of patients with catarrhal gingivitis by using drugs based on D-glucosamine.

Materials and methods. We examined 20 patients with symptoms of catarrhal gingivitis (16 women and 4 men among them). Criteria for including patients in the study: age from 25 to 35 years, reliable diagnosis, patient's consent. According to anamnesis, the prescription of the disease is from one to three years. The condition of the periodontal tissue was assessed clinically. Patients were divided into 2 groups depending on the method of treatment: in the first one a complex treatment was performed using traditional local anti-inflammatory therapy with periodontal trays, in the second one - with local application of drugs based on D-glucosamine with periodontal trays. The exposure consists of 40 minutes twice a day for 14 days. Periodontal status was assessed by: bleeding of the gingiva at the H. R. Muhlemann index, Sulcus Bleeding Index (1971), the degree of inflammation in the gingiva - by the PMA index in the modification of C. Parma (1960), the prevalence and severity of inflammatory-dystrophic changes - according to the A. L. Russel index (1956). The hygienic state of the oral cavity was determined by the index of J. C. Green and J. R. Vermilion (OHI-S, 1964).

Results of research. Taking into the account of clinical and radiological picture, within the framework of the new concept of complex treatment of patients with catarrhal gingivitis, a gel composition based on D-glucosamine was developed for topical application. Clinical approbation of the gel composition on the basis of D-glucosamine allowed to locally enhance the anti-inflammatory, antiedemic actions, analgesic effect, optimized the reparative processes in the periodontal tissues and reduced the term of treatment and avoided side effects.

Conclusions. This investigation showed that the regeneration processes in patients who were treated with D-glucosamine drugs in a complex treatment are proceed more intensively and completely than similar processes in the periodontium in patients who were treated with the traditional method. Local and general using of drugs based on D-glucosamine is possible in order to increase the effectiveness of anti-inflammatory therapy in the complex treatment of catarrhal gingivitis.

Komarov D., Mikulinskaya-Rudich Yu.

ANALYSIS OF THE EFFECTIVENESS OF NANOTECHNOLOGY IN THE PREVENTION OF CARIES AND NON-CARIOUS LESIONS

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Introduction. Tooth enamel is a unique complex of bioceramic material, which is the hardest tissue of the human body. Protein amelogenin plays the main role in the synthesis of enamel. It organizes the organic matrix and stimulates the crystallization of hydroxyapatite, but, due to the active inclusion of minerals in the maturing enamel, this matrix degrades during the amelogenesis period.

Swiss scientists have found a way to simulate the formation of an organic matrix of enamel carious defects, stimulating the regeneration of enamel by natural biomineralization. The biomimetic peptides of amelogenin activated in the oral cavity (by special pH level) form a three-dimensional(3D) biomatrix, which accumulates calcium and phosphorus minerals from the saliva, and forms the structural elements of the tooth enamel-hydroxyapatite. This technology simulates natural amelogenesis. Amelogenin has wide indications for the treatment of carious and non-carious lesions of temporary and permanent teeth: hypoplasia of enamel, fluorosis, enamel cracks, caries after orthodontic treatment, remineralization of enamel after abrasive bleaching. The application procedure occurs without drilling or prior application of the acid to infiltrate the enamel. It is enough to apply one drop of the amelogenin on the enamel to start the process of biomatrix formation or biomimetic regeneration using calcium and phosphorus ions from the patient's oral fluid. Restoration of enamel after application of the amelogenin takes from one to three months and this saves time for both the dentist and the patient. In the study, we determined the effectiveness of the use of amelogenin in patients with enamel cracks and fluorosis.

Materials and methods. The study involved 40 patients (20- with fluorosis and 20 with enamel cracks). All patients were trained in hygiene skills, used toothpaste with fluorides of one manufacturer for the reliability of the experiment.

Results of research. The result of treatment was evaluated after the end of the therapeutic treatment. Amelogenin was effective in treating patients with fluorosis - 95% efficiency (19 patients out of 20), and with enamel cracks - 90% (18 patients out of 20). The results show a high level of effectiveness of fluorosis and enamel cracks treatment.

Conclusions. The results show that amelogenin is effective, and can be used by dentists during dental treatment.

Lysenko A., Mamedov A.

**RESEARCH OF THE MASTICATORY MUSCLES USING
ELECTROMYOGRAPHY IN FUNCTIONAL DISORDERS OF THE
TEMPOROMANDIBULAR JOINT**

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Introduction. To day surface electromyography (EMG) is used in dentistry as an objective method of research of functional disorders of the temporomandibular joint (TMJ) and masticatory muscles.

The aim of the research was to study the EMG indices among patients with dysfunction of the TMJ.

Materials and methods. A group of patients consisting of 10 people, 5 of whom had symptoms of TMJ dysfunction, another 5 people were a comparison group with an intact dentition. An EMG analysis of the masseter muscles and temporal muscles was performed, which are the main muscles involved in the chewing process and are available for superposition of surface electrodes. To register the muscle biopotentials, the computer myograph "M-TEST Neuro" was used. EMG registration was carried out using functional samples. As a food stimulus, the cube of rye bread of yesterday's baking with an edge of 1 cm (weight approximately 1.5 g) was used equally for all studies. For the methodological basis of the study, we adopted the protocol of electromyography, proposed and applied at the Department of Orthopedic Dentistry and Implantology, UMSA (V.M. Novikov, 2009).

Results of research. In persons with an intact dentition, the EMG indices for s, m.Masseter are as follows: compression amplitude is 497 +/- 55; Compression frequency 244 +/- 4.7; Amplitude of chewing 692.7 +/- 50.5; Frequency of chewing 268 +/- 14.6; Duration of activity 335 +/- 7.8; Rest time 305 +/- 8.1; The coefficient is K 0.95. And in patients with dysfunction of the TMJ, occlusal-articulatory syndrome was observed with the following indices: bioelectric activity (BEA) 233 ms, bioelectric potential (BEP) 347.00 ms, dynamic cycle time 600.00 ms, Coefficient K 0.729, max. The amplitude of chewing is 1299.84 μ V. Arbitrary chewing on EMG records in individuals with an intact dentition is characterized by alternation of volleys of activity (BEA) and inhibition processes (BEP). BEA phases that arise during chewing are characterized by an increase in the frequency and amplitude of biopotentials, which reach the maximum values in the middle of the phase, after which their value decreases and the BEP phase changes, expressed as EMG as straight line at the isoelectric line level.

Conclusions. In persons with an intact dentition, all its structural parts function interrelated with clear boundaries between the BEA and BEP sites. In the study group with dysfunction of the TMJ EMG, the study showed that the average time of the dynamic cycle increased and BEA on average to 1200.00 ms and 1700.00 ms,

respectively, the average value of the coefficient K for the self-masticatory muscle decreased and fluctuated from 0.7 to 0, 3.

*Palii O., Niyazova Zh., Yarashev R., Rakhimova S., Garmash Ye., Al-Mamorri D.,
Vaida Yu.*

INFLUENCE OF THE MOUTHWASH APPLICATION MULTIPLICITY ON THE MICROBIAL LANDSCAPE OF THE ORAL CAVITY.

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(Department of Therapeutic dentistry)

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Introduction. One of the main factors for maintaining the proper hygienic state of the oral cavity is usage of properly selected items and oral hygiene products.

Manufacturers of hygiene products recommend the use of mouthwashes twice a day after brushing teeth, sometimes the rinse can be used instead of brushing teeth even in case a toothbrush is available.

But sometimes many patients either lose motivation and use mouthwash from time to time, or use them too often in attempt to improve the hygienic state of the oral cavity. The purpose of this work was to study the effect of different frequency of application of Colgate Total 12 mouthwash on the oral cavity microflora.

Materials and methods. 18 persons without somatic pathology aged 22-26 years took part in the study. Three representative groups by sex and age were formed. For comparability of results, all participants of the study were cleansed and been offered to brush their teeth with their own toothpastes and new toothbrushes. First group participants used the mouthwash twice a day after brushing their teeth, according to the manufacture recommendations. Second group participants used the mouthwash once a day every other day. Third group participants used the mouthwash twice a day after brushing their teeth and several times during the day.

The material was taken before and after 10-day preventive cycles by sterile disposable dry cotton swabs. Delivery of the material was made within 2-3 hours from the receipt. Seeding of the material was carried out on several nutrient media: 5% blood agar, yolk-salt agar, Saburo agar, enterococcus and Endo agar ("HiMedia", India). All crops were cultivated at a temperature of 37°C for 24-48 hours. The identification of microorganisms was carried out according to the culture-morphological, tinctorial and biochemical properties according to the order of the Ministry of Health of the USSR. 535 of 22/04/1985, the "Berjee bacteria qualifier" (2005-2011). Tinctorial properties were studied by coloration on the Gran and HPLC, biochemical identification of isolated microorganisms performed with biochemical tests, including bile test, determination of catalase and oxidase activity.

Results of research. According to the bacteriological research results, it was established that initially oral microflora qualitative composition was similar in the majority of the examined. In the study of the samples obtained before the rinsing courses, complex bacterial associations were isolated, most often composed of normal flora representatives - non-pathogenic species of the genus *Neisseria*, *Streptococcus* of the viridians and enterococci. The established amount of *E. faecalis* in all samples

exceeded the permissible norms and was 105-107 cfu / ml, which indicates the dysbiotic changes in the oral cavity microbiota. In the part of the test samples, the dysbiotic changes of the oropharyngeal cavity microbiota were revealed, which were due to the presence of *Moraxella* in amount of 105-106 cfu/ml. Conventionally pathogenic β -hemolytic streptococcus and *Staphylococcus aureus* have been detected in some samples at small amounts.

The results of a repeated microbiological study showed there were no significant changes or normalization of the oral biocoenosis in any of the groups after the rinsing courses. However, in some participants of the third group, the oral cavity dysbiosis was aggravated by the appearance of a representative of enterobacteria *K. pneumoniae*, not characteristic of this biotope.

Conclusions. As results obtained, it should be noted that none of the mouthwash schemes used by us resulted as positive. The usage of the mouthwash chosen by us does not affect the growth of the normal oral cavity flora, and in some cases, reduces its quantity. Increasing the rinsing frequency can lead to a "worsening" of the oral cavity microbial landscape.

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DYSBIOSIS OF ORAL CAVITY IN BREAST CANCER PATIENTS DURING ADJUVANT CHEMOTHERAPY

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Introduction: The toxic effect of chemotherapy has various appearance in the whole organism, and also can be present on the oral mucosa. One of the most significant side-effects of the anticancer therapy is inflammation of mucous membrane – chemotherapy-associated mucositis. This problem was detected with a high incidence rate in breast cancer (BC) patients and is important because of the chemotherapy tropism to the mucosa of the gastrointestinal tract. We have previously shown that the incidence-rate of this condition can reach 90 % in breast cancer patients during adjuvant chemotherapy (CTx). These effects can make a significant discomfort for patients, often leading to the deterioration of patients and discontinuation of the treatment. In such a way the effectiveness of treatment will be decreased as the dose of chemotherapy is limited. It is known that the crucial role in pathogenesis of almost all dental diseases can play a microbial factor which leads to the oral dysbiosis. The aim of the work is evaluation of oral cavity dysbiosis in breast cancer patients during adjuvant chemotherapy.

Materials and methods. All the patients experienced mastectomy and adjuvant radiotherapy before the beginning of CTx. There was investigated oral fluid in 26 breast cancer patients stage T₁N₀M₀–T₂N₁M₀ during chemotherapy, detecting unstimulated urease activity (an indicator of microbial seeding) and lysozyme activity (an indicator of nonspecific immunity). The analysis was done at the beginning of CTx and before the II, IV and VI cycles of it.

Results of research. The conducted investigation of oral fluid in BC patients before the beginning of chemotherapy have revealed that urease activity was increased in 7.1

times ($p < 0,05$) in all BC patients before the onset of CTx, indicating a significant increase of microbial seeding of the mouth. There is a slight decrease of urease activity against the background of CTx; before the VI cycle of CTx the rate was in 5.5 times higher. The lysozyme level in oral fluid was in 2 times lower, and maintained during the whole course of CTx, and even showed some tendency to decline further before the IV and VI CTx cycles. The difference between the benchmarks and the norm is explained by the preliminary conducted surgery and radiation therapy of BC patients at earlier stages of treatment. The estimation of grade of oral dysbiosis in these patients showed its growth in 13.3 times. Despite the decrease of urease and lysozyme activity before the VI CTx cycle, compared to the original data, the grade of dysbiosis is unchanged: 13.3 units at the beginning and 14 units before the VI cycle of CTx.

Conclusions. The obtained data shows a significant increase of microbial seeding of the oral cavity and reduction of the bactericidal properties of oral fluid in breast cancer patients against the background of adjuvant CTx. This dictates the necessity to develop a pathogenesis-conditioned set of preventive measures for these serious side-effects.

Tkachenko O., Chertkov V.

**DIAGNOSIS AND TREATMENT OF TRAUMATIC TRIGEMINAL
NEUROPATHY,
ARISING AFTER SURGERY IN THE MAXILLOFACIAL REGION**

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Introduction: Providing out surgical interventions in maxillofacial region carry a certain risk of damage to the branches of the trigeminal nerve, and complications development, as a result. Varying degrees of nerve function violations occurs by direct nerve injury during surgery, as well as nerve compression during the installation of plates and screws during osteosynthesis, implants and postoperative edema. Such complications manifest themselves in the form of long-term alterations in tissue sensitivity in the zone of innervations, pain of varying intensity, and are accompanied by emotional stress disorders that significantly impairs the quality of life of the patient.

Materials and methods: Research objectives: 1) Evaluate the extent and nature of the dysfunction of the trigeminal nerve after surgery in the maxillofacial region, depending on the location and depth of intervention. 2) Develop an algorithm of doctors actions for the treatment of traumatic neuropathy of the trigeminal nerve after surgery in the maxillofacial region and practical recommendations for its prevention.

Results of research: Over the past 2016 in the maxillofacial department of Kharkiv State Hospital, 210 patients with impacted third molars (wisdom teeth) on the lower jaw were operated. Established, that the most informative investigation method at the stage of preoperative planning is cone tomography. This method allows an optimal planning of surgical approach in order to avoid possible traumatization. Gentle tissue dissection and careful planning of the operation allows to avoid damage to the inferior alveolar nerve. During follow-up visits, a month after the surgery, 50 patients complained on numbness of respective half portion of the lower lip and chin skin. If postoperative phenomenon of paresthesia was detected, implementation of the

medication scheme of vitamins group B (thiamin, riboflavin, pyridoxine, cyanocobalamin) for the period of one month was effective. To improve the regenerative processes in the nerve endings it is advisable to use vasoactive drugs (nicotinic acid, dipyridamole, trental). Among the wide spectrum of physiotherapy treatments, the most effective ones are – ultraviolet radiation of the affected half of the face, phonophoresis of lidocaine and nicotinic acid.

Conclusion: Traumatic neuropathy remains an important post-operative complications to date, so it is advisable to do proper planning to prevent its development. In case of complications arising it is necessary to use the rational medications.

Tkachenko I., Shevchuk D., Trunova I.

ASSESSMENT OF MUCOSAL IMMUNITY OF THE ORAL CAVITY IN CHILDREN WITH CYSTIC FIBROSIS

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Introduction. The nature of the pathological changes of the oral cavity tissues and teeth in cystic fibrosis is not described sufficiently in the literature. Further study of the dependence of dental diseases development in children on primary somatic disease is necessary.

Objective: Determination of the relationship between the state of microbiota of oral cavity and the level of the local immunity in children with cystic fibrosis.

Materials and methods. For achieving the goal 41 children aged 2 to 17 years were examined. The basic group included children with cystic fibrosis (n = 23) who were diagnosed with periodontal and tooth disease, and group of control consisted of their coevals without concomitant somatic pathology and who had not cystic fibrosis (n = 18).

The survey included patients' medical history, clinical examination of the oral cavity, definition of the Green-Vermillion hygiene index and gingivitis index (PMA), urease activity by the reaction of urea to form ammonia and lysozyme by the bacteriological method.

Degree of dysbiosis of oral cavity was determined by enzymatic method after A.P. Levitsky by correlation of the relative activity of urease and lysozyme.

For evaluation of local immunity state the levels of IgA, IgM, IgG and sIgA were determined by ELISA.

Results of research. The study found significant increase of urease activity in 2 times and reduction of lysozyme activity almost in 1.5 times in the saliva of children with cystic fibrosis compared with the healthy children. While there were decrease of secretory IgA concentration in 1.3 times and increase of concentrations of other immunoglobulins such as IgA - 2 times, IgG - 1.4 times and IgM - 1.5 times in children with cystic fibrosis compared to the group of control. Disorders of local immunity were accompanied by the growth of oral dysbiosis in 3 times. Most of the sick children were marked unsatisfactory and poor state of oral hygiene due to Green-Vermilliona index,

moderate and severe degree of gingivitis after the papillary-marginally-alveolar index. The maximum violations had been registered in children at the age of 2 to 3.

Conclusions. 1. Low level of oral hygiene of children with cystic fibrosis is accompanied by significant increasing of oral cavity dysbiosis degree, which indicates a damage of microbiota caused by first of all decrease of antimicrobial protection. 2. Local immunity suppression of the oral cavity, which is characterized by decreasing activity of lysozyme and content of secretory IgA in saliva is marked in children with cystic fibrosis.

Tomilina A.

CLINICAL ASSESSMENT OF THE QUALITY OF CERAMIC INLAYS DURING ORTHOPEDIC TREATMENT OF PATIENTS WITH DEFECTS OF HARD DENTAL TISSUES

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Introduction. Inlay is microprosthesis, which purposes the restoration of the anatomical shape of a tooth by filling a defect in natural crown. Also inlays are used as support elements of bridge prostheses in prosthetic treatment of the small size included defects of dentition.

Scientific novelty of work: experimental determination of the clinical advantages of polishing systems during final cement polishing.

Purpose of the study: increasing the quality of prosthetic treatment of patients with defects of dental hard tissues by quality of ceramic inlays, applied during prosthetic treatment using different polishing systems.

Materials and methods. To study the status of hard dental tissues we had examined a comprehensive survey of 33 patients of adult population (16 men and 17 women) belonging to the group of "working age" (19 to 54 years) with caries cavities and defects of hard dental tissues. It was divided into two groups: the first group included 16 patients for final polishing of fixing cement like "tab of the hard tissue of the tooth" using system "Enhance®" (DENTSPLY, USA). The second group included 17 patients for the finish polishing of the fixing cement by burs (SHOFU INC, TF Hybrid™ Kit Points) and polishing toothbrush with Profylaxpaste CCS (CCS, Tunavagen Borlange, Sweden), RD = 40.

Patients were selected by localization of defects on occlusal surface of posterior teeth (premolars and molars to the first class for Black). At all stages of dental procedures in the preparation of cavities and next stages was used a dental microscope Kaps SOM 62 Cold Light.

Preparation was carried by clinical requirements.

Results of research. The quality of indirect restorations was carried out after 6, 12 and 24 months. The correlation between inlays and cement after 6 months was rated as "high quality" in 13 patients of the first group (a total of 81.25%) by using "Enhance®" and in 16 patients of the second group (94%) by using polishing burs "SHOFU". The results was: 3 patients (18,75%) with system "Enhance®" restorations

and 4 patients (23,5%) with restorations that have been polished by the polishing system hog "SHOFU", the fixing cement was upper of level of the hard tissues. The level correlation of inlays and level of cement to hard tissues of teeth after 24 months has changed slightly. We can see it in 4 patients of the first group (25%) and 4 patients of the second group (23,5%).

Conclusions. Application of finish polishing by various cement systems showed clinical benefit "SHOFU" against "Enhance®".

Voloshan O.

TREATMENT PATIENTS WITH OROANTRAL FISTULA WITH THE USE OF PRF(PLATELET RICH FIBRIN) MEMBRANES.

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Introduction. Close anatomical and topographical correlation of the dentition system and breathing organs, in particular-maxillary sinus, potential supposes relative burdening on a background of odontogenic inflammatory processes. One of the most widespread forms of pathological process what dental-surgeon can meet in his practice is the odontogenic maxillary perforative sinusitis. In most cases it could be problem after iatrogenic interference or violation of rehabilitation period by the patient. That makes 21,3 % of general amount of festering-inflammatory processes of maxillo-facial area. In this way the availability of perforation of the lower wall of maxillary sinus raises acute dysfunction of the quality of breathing, abnormal act of eating, considerably make worse quality of life this category of patients. In our opinion -PRF(Platelet Rich Fibrin) membrane is one of the most simple and perspective methods of closing of oroantral fistula .

Materials and methods. 25 clinical cases of patients with odontogenic perforative maxillary sinusitis have been analyzed . All patients were treated at the department of oral and maxillofacial surgery in 2016-2017 in Kharkiv Regional Hospital. All patients were underwent clinical, laboratory and radiologic investigations, 3-D CT

. Basic attention in this research we spared tacticians of closing of perforation fistula between a maxillary sinus and cavity of mouth, appearing as a result of extraction of causal tooth. Material that we were use for closing oroantral fistula was a PRF(Platelet Rich Fibrin) a fibrin is enriched by thrombocytes, got preliminary after the fence of own blood of patient and correspondingly centrifuged. PRF membrane was used on occasion in

combination with modern bonegraft materials. The plastic closing of defect with the use of PRF membranes was conducted after relief inflammatory process in the sinus and after we performed a different kinds of sinusectomy.

Results of research. Obtained information about the flowing of rehabilitation period of this category of patients, with the use of methodic of closing perforations of bottom of sinus by PRF technology allows us to prove the positive regeneration effect of this methodology. That method can be use in case of immediate elimination of oroantral

fistula after realization surgery near the maxillary sinus and on the stage of treatment of this complication.

Conclusions. Individualized approach, quality laboratory diagnostics (3 –D CT.), modern possibilities of the choice material for closing of perforation defect (PRF membrane) can cardinaly prevent possible complications.

Yakovleva D.

THE FEATURES OF LIPOMATOUS LESIONS IN THE MAXILLOFACIAL REGION

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Introduction. Cases involving the head and neck region and only 1-4% affecting the oral cavity. The first description of an oral lesion was provided in 1848 by Roux in a review of alveolar mass, where he referred to it as a “yellow epulis”. In more than 1000 benign tumors of adipose tissue, over 80% are ordinary lipomas, and lipoma variants (other types) account for less than 2% of all benign lipomatous neoplasms. Multiple lesions, such as Madelung’s disease, may occur in about 5% of patients. The peak of incidence is usually in the fifth or sixth decade of life with slight gender predilection for males.

The aim: to study the features of clinic, diagnosis and treatment of maxillofacial lipomas.

Materials and methods. For the period 2014-2015, in the clinic of surgical dentistry and maxillofacial surgery KhNMU 25 patients with lipomas of face and neck, including 4 patients with diffuse lipomatosis of neck (Madelung’s disease) were treated.

Results of research. The recurrent form lipoma with multicentric growth (from fatty ball of Bichat) took place in one clinical case male patient 65 years old. It held the temporal, parotid-masticatory, buccal and infraorbital regions. In the anamnesis the patient was operated twice with intervals of 8 and 9 years respectively. The histological examination showed the presence of fibrolipoma after surgical intervention.

The annular lipoma of neck (Madelung’s disease) was diagnosed in 4 patients.

All patients were male, 45-63 years old, with a history of abuse or have abused alcohol. We considered as I-th degree in one case of lipomatosis (Gucan A. E.) – front upper third of the neck. Two patients had the II-d degree – the upper third of the neck with the transition to the parotid-masticatory regions, and in one patient was diagnosed IV-th degree (the front surface of the neck, parotid-masticatory regions, occipital region, interscapular region).The surgical intervention was performed in several stages (2,3) for all patients (except for I-th degree).

Conclusions. Our studies confirm the research of other authors concerning the prevalence of the disease, treatment strategy. Special attention should be paid to the correct choice of operative access, in order to avoid recurrence of the disease. In the case of lipomatous lesion surgical intervention should be undertaken in several stages in view of the traumatic operation and reduction of rehabilitation term of such patients.

Zeinab M.Hammond

A CLINICAL STUDY: EVALUATION OF THE EFFICIENCY OF ER, CR: YSGG LASER IN TREATMENT OF MARGINAL GINGIVITIS

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Introduction. Recently an amazing shift is occurring in dental field. Laser energy allows to achieve high clinical results in the treatment many dental problems with minimal invasive intervention. The literature data show that the treatment of hyperplastic gingival processes with the help of erbium laser is one of the promising directions in modern periodontics. The study of clinical efficacy in the application of laser technologies, including Er, Cr: YSGG laser, will allow to study more widely alternative methods of treatment of periodontal complex tissues and substantively introduce them into the treatment process among dental specialists. The aim of the research is to study and assess the clinical efficacy of Er, Cr: YSGG laser application in treatment of marginal gingiva.

Materials and Methods. The basis for the study was clinical and experimental studies that were placed in an electronic database (PudMed / MEDline) from 2010 to December 2016. The study involved 16 patients aged 20 to 25 years; 8 patients with hyperplastic gingivitis (group 1) and 8 healthy gum patients (group 2) treated with aesthetic complaints about the gum configuration. Patients were treated at the Department of Therapeutic Dentistry of Kharkov National Medical University. In the 1st group, the hyperplastic gingival sections were excised, and in the 2nd group, the crown elongation was carried out using Er, Cr: YSGG (erbium, chromium: atrium-scandium-gallium garnet) laser at a wavelength of 2780 nm. All patients were taught the peculiarities of individual hygiene in the postoperative period. Dynamic observation was performed on the 3rd, 7th, 14th, 21st and 45th day after treatment for the purpose of studying clinical parameters (plaque index and gingival index, clinical signs of gum healing) and examining patient complaints (postoperative bleeding and pain), which was conducted on a five-point scale questionnaire.

Results of research. The study of clinical parameters in the two groups on days 3 and 7 indicate a high plaque index (from 44.9% to 56.8%) and clinical signs of the inflammatory process in the gum caused by the early postoperative period and relatively painful during tooth cleaning in the intervention zone. Patients of the two groups evaluated morbidity from 3 to 4 points in the first day, 3 patients of the first group and 2 patients of the second group noted bleeding in the first day. None of the patients had recourse to pain medication. On the third and seventh days, 15 of 16 patients did not experience pain except when brushing their teeth pain was recorded and assessed soreness from 2 to 3 points. Observation after 2, 3 and 4 weeks indicated a stable positive dynamics in the study of the plaque index, the gingival index, and these results correlated with the clinical signs of gum healing and the absence of complaints of pain in patients. When studying clinical parameters, no statistically different data were found between the indices in the two groups ($p > 0.05$).

Conclusion. Based on a systematic review of the literature and our own research results, we can state that the use of the Er, Cr: YSGG laser in the treatment of patients

with hyper-plastic gingivitis and in healthy gingiva marginal corrections process is an effective and minimally invasive method of treatment. The opinion of most authors in terms of wound surface healing, control of secondary infection, reduction of postoperative pain and bleeding coincides with the results of our study and confirms the advisability of using this technique in similar cases.

INDEX

Abbas S., Aleksandrova A.	3
Abdullaieva S., Qasanova A., Tkachenko V.	227
Adamu I., Chalenko N.	3
Afolabi Omotolani.	50
Ahmed Ahmed Mosad Gaballa.	188
Ajayi E.	107
Akinwumi A.	50
Akuyoma May Ohiri.	51
Aleksandrova E.	4
Aleksandrova K., Kozka I.	188
Al-Trawneh O.	52
Amoo-Mensah A., Mary Yaa Acheampoymaa Asanie.	258
Andikan Effiong Udoh.	203
Aralova V.	158
Aralova V., Onashko Yu.	5
Arogundade F.	159
Artamonov R., Dubovyk V.	204
Arutiunian A.	108
Asante G., Ashiq Parappil.	204
Asiome W., Karmazina I., Isaeva I.	6
Bagmut A.	160
Bagmut A.	53
Balchunas I.	109
Belitsky I.	109
Berdikova Y., Mr. Gubin N.	7
Berezhnoy H., Suhopara M.	54
Berihu Mosay.	55
Bezverbniy V., Shishkina S., Mydlovets V., Shevchenko I., Karnaukh E.	8
Bilchenko S., Bausov Y.	110
Bilousova M., Ievtushenko D., Ievtushenko O., Kholosheva D.	111
Bortnik K., Kitchenko S., Yaremko I., Babaeva A.	112
Chekhunova A.	161
Chepeliuk O., Ivakhnenko D., Bordun A.	113
Chernushova I.	206
Chibuzor V. Onuchukwu.	56
Chibuzor V., Zinchuk A.	10
Chirva A.	189
	293

Darii I.	207
Degtyar K.	11
Demydova P., Kalinichenko M., Zaveruha Y.	279
Denisenko D., Dolinina I., Shapovalov I.	259
Diakivnych A.	114
Dobrovolskaya E., Maryenko N.	12
Dobrovolskaya L., Tuchkina M.	161
Dolgov V., Kotlyar V.	115
Dombrovskaya I., Manzhelij V.	57
Drobova N., Yanovska K.	190
Dyakova M., Gordiychuk D., Onashko J.	13
Dzhuma N., Iurko K.	227
Effiong U.	163
Ekedigwe S., Chenai C., Matowe.	164
El Hayek.	58
Elhaj Abeer.	228
Ellazova A., Blahoveshechensky R., Melnik K., Reznik M., Rakytyanskyi I.	165
Emelie C.	166
Enemigin E.	166
Enemigin E.	208
Fernandes S., Grahams R.	167
Filipov A.	191
Firsyk T.M.	116
Fokina D., Holovko A., Bogachova O.	260
Frolov Y.	59
Fursov I.	116
Ganizade N.	14
Ganizade N., Zelenska H.	15
Garyuk T.	117
Gaynutdinova A.	261
Gontar E., Khabal A.	168
Grinchenko A., Kupchuk K.	15
Gudenko A., Gosudarski I., Kovaliov M.	16
Gupta A., Samoilova H.	209
Guseinova N., Malikova S., Gulieva P.	169
Guyvan I., Gardashova J.	118
Halashko K.	169
Hammoud Z.	280
Harkavenko K.	60
Hassan K., Shaposhnikova Y., Ilchenko I.	61

Hloba N., Sarancha T., Palchinsky V.....	18
Hloba N., Zhuravliova P.V.....	17
Holnik Y., Goncharov A.	119
Holovko A., Robak V., Drana L., Fokina D.....	120
Hurnitskyi A., Babii I.V., Levchuk B.O., Zahoruiko V.V., Prosvitliuk P.V., Kryzheminskii V.O.	121
Iliukha S.	62
Iliukha S., Movchan V.	230
Ivanashko K., Tatianko L.....	192
Ivanova A.	262
Ivanova T., Korpan T.	170
Ivanova A., Prykhodko D., Honchar O., Pereiaslova H., Samofalova M.	122
Ivanteieva Yu., Kurchanova Yu., Kovaltsova M., Sirenko V.	19
Ivchenko N.	20
Kadykova O.....	63
Kalganova M., Zelenska H.....	21
Kalyan V., Sharma A.	22
Kalyuzhka V.....	123
Kalyuzhka V., Plyekhova O.	231
Karamian A.	123
Karamian A.	124
Karungi Prilla, Awodunmiila Oluwakayode, Tamakloe Eugene	231
Katelevskaya N., Gonho M., Emeanu M.....	263
Katelevskaya N., Nyamekye F., Kassim I.....	264
Kharchenko E., Skliaruk D., Shtereb A.....	23
Kharoubi R., Sameja M.	63
Khatib Y.	64
Khilchevskiy B., Vlasenko O., Ngo Thi Tuyet Nga.....	125
Khmil O.....	193
Khomovskaya A.....	194
Khromei E., Goncharov A.....	126
Khromykh A., Lavryniv A.	65
Khvorostinko R., Davydych A.	233
Kiebashvili S., Gnatenko O.	171
Kindruk M.	265
Klymenko O., Danilchenko D., Lobova V., Gvalt V., Zlatkina V.	66
Knigin M., Chirva A., Katelevskaya N.	266
Knyhin M., Artsylenko K.....	23
Knyhin M., Artsylenko K.....	67
Kolesnik A.....	68
Kolisnyk O.	280

Koliubaieva O.	69
Koljada I., Ivzhenko L.....	70
Kolotilov A., Tyrkin D., Maslovska A.	71
Kolotilov A., Tyrkin D., Onaschko J.....	24
Komarov D., Mikulinskaya-Rudich Yu.	282
Komarov D., Yakovleva L., Onashko J.....	25
Konareva V., Korolkova A., Tryhub Yu.....	195
Korniyets A., Mezhenkaya E.	127
Korolkova A., Korchak Y.	196
Korolkova A., Rakhman P.	26
Koteliukh L., Borovyk K., Ryndina N.	72
Koval V.	197
Kovalchuk V., Malets O.....	73
Kravchenko V., Teslenko A.	234
Kravchun P.....	74
Kruglyak V., Babayeva A.	128
Kruglyak V., Guyvan I.....	129
Krukovets N.	130
Kucherenko O., Mohammad Ahmed Mustafa Al Amayreh, Gaber Daniel, Alaa Ibrahim Mousa Alyasouri	235
Kuleshova A., Ivakhnenko D.	210
Kupchyk K.	131
Kurchanova Y., Ivanteieva Y., Onashko J.	27
Kuzminova V.	236
Kuzminova V.	74
Kuznetsova D., Goncharov A.....	132
Kvasova P.....	75
Lapshyn D.	132
Likha V., Dontsova E., Karnaukh E.....	28
Likha V., Dontsova E., Karnaukh E.....	76
Litovchenko O.....	267
Litvin N., Abuzova Y.....	209
Lola N., Sushetska D., Yakusheva A.	133
Lola N., Yakusheva A.	77
Lukashenko E., Yakymenko D.....	134
Lutsenko M.	172
Lysak M., Rynchak P., Kolotilov A., Kysil I.	78
Lysenko A., Mamedov A.	283
Magapu Veera Venkata Akhil.....	211
Makarenko N.....	268
Maliiovannaya A.	135

Malvika C.....	29
Malvika C.....	78
Mamasuieva L., Akhalaya E.	212
Manpreet Singh, Mbamalu Chinyere Margaret, Katelevskaya N.	269
Manzheliy V., Dombrovskaya I.	79
Markevych Iu.	30
Markevych M., Saryieva M., Sytnik N.	80
Martynenko A.	236
Medikonduri V., Addepalli S., Swati S.	30
Melamud K.....	213
Mezhenska K., Dolgov V.	31
Mikhieieva N.....	136
Mildred Noroh F.....	81
Milko A.	137
Mohamad S.	214
Mohamad Sultan	270
Nagornyi I.	82
Nazarov D.	83
Nebe E.....	173
Nekrasova Y.....	138
Nesterenko V., Kovtun I.....	84
Nguyen T.L.	85
Novikova A.	173
Nusra Najila Beevi	174
Nyrka I.....	139
Obasi Hosanna Nnennaya	237
Ogbole E.....	270
Ogunyemi Opeyemi Oluwafunmilayo, Sesay-Tlahyoni A.....	271
Ohiri May Akuyoma, Kucherenko O.	238
Olawole O.	216
Olkhova A., Kotkov O.	215
Onopriiko Y.....	140
Onwujekwe U.....	175
Onwujekwe Udodi.....	239
Opeyemi Oluwafunmilayo O.	176
Orlova T.	32
Osipenko T.	240
Ostapenko D., Halimov E., Nagornyi I.	272
Owoeye S.O.	86
Palii O., Niyazova Zh.,Yarashev R., Rakhimova S., Garmash Ye., Al-Mamorri D., Voida Yu.....	284

Panich R.	241
Pashkov O.	141
Pavlichuk Y.	242
Plyekhova O., Kalyuzhka V.	244
Poliakova V., Korsunov K.	33
Polyakov O., Gorobivskaya T., Chudinovych I.	243
Ponomarova K., Minukhin D., Ponomarova E., Ovchinka R.	142
Ponomaryova A.	273
Ponomarova K., Minuchin D., Perepelitsia F.	142
Praharaj P., Ilchenko I.	87
Prokopenko A., Gnatenko O., Nikolsky N.	177
Pushkar O., Myroshnychenko M., Shyshkova M.	34
Pylypenko N.	179
Pylypenko N., Romanova N.	178
Pysarenko H., Kosarieva A., Zikrach V., Piven V.	244
Qalasi Mohanad.	88
Renea Jenkins A., Owolabi Oluwatobiloba M., Ndeilenga L.	274
Rieznik M., Huliaiev O.	35
Saakyan T., Fedortsova V., Kolganova N.	245
Salawu K., Raliat A.	88
Samchenko K., Kozeichuk P.	36
Sameja Majida.	247
Samer Maarabuni	198
Sarzhan A., Tkachenko D.	37
Schebetenko V.	218
Sendeha O.	248
Sesay-Tlahyoni A.	180
Shafranetskaya V., Sukhonosov R.	38
Shaikh A.	181
Shakiryanova A., Gyschka J.	39
Shapoval V.	217
Sharlai K., Volkova J.	143
Shcholok T., Molchanova A.	39
Shpylenko O.	144
Shubina M.	248
Shubina M.	89
Skopenko A., Krasun O.	182
Skoryi D.	40
Skoryi D.	90
Sokolnikova N., Kumar Ravi	91

Sokur O.	146
Sokur O., Masalitina E.	249
Sorokina O. ¹ , Liadova T. ¹ , Kolesnik Y. ²	250
Srinath S.	147
Sukhina I. ¹ , Splyukhina O. ²	285
Sukhodolska O., Spuzyak A., Gavrylenko N.	148
Sukhonos N., Diasamidze M.	92
Sukhonos N., Hrechukha A.	93
Sultan M.	183
Sultan M.	184
Sultan M.	199
Sultan Mohamad	94
Surendran Arun, Kucherenko O., Freeman Elvera, Clio Jis Francis	251
Sushetska D., Zatoloka D.	219
Sushetskaya D., Zatoloka D., Matowe C.	94
Svetlichnaya K.	220
Symkina V., Kauk O.	221
Sypalo A.	96
Sytnikova N.	96
Taha A., Sokolnikova N.	97
Tatenda Tekere, Tinuola Olajide	275
Teslenko A., Kravchenko V.	253
Teslenko I.	254
Tikhonova O.	200
Timoshchuk M.	222
Tkachenko I., Shevchuk D., Trunova I.	287
Tkachenko O., Chertkov V.	286
Tomilina A.	288
Topchii S.	41
Tregubenko A.	223
Trehub Y.	149
Trehub Y., Fundovna O.	255
Tykhanskyi D., Goryacheva Y.	185
Tymbota M.	42
Tyrkin D., Shutova I.	43
Udoh Andikan Effiong	276
Unaam E.	98
Urazova L., Vinokurova O., Talakhan A., Reznikova A.	256
Vasylyev D.	150
Veera venkata akhil M.	99

Veera Venkata Akhil M., Ardhi Raj Deepak	277
Veera Venkata Akhil Magapu, Abdullah Saad, Shahnawaz Gul	201
Volik M., Sahirov V.	151
Voloshan O.	289
Voronaya J.	152
Yakovleva D.	290
Yanioglo O.	153
Yanioglo O., Krukovets N., Sokol E.	44
Yermak O., Sultan Basel	100
Yermola A., Anpilov A.	101
Yevtushenko D., Myroshnychenco D., Pius A.	153
Yuncova K., Zarochentsev R.	45
Yuntsova K.	224
Yurkina I., Beresneva K.	46
Zaikina T., Butrimova I., Babich A.	102
Zaikina T., Pichur G., Bozhko A.	102
Zakharenkova A., Salo K.	103
Zdorikova A., Kirjner M., Lebedynska K.	104
Zeinab M.Hammond	291
Zelenska K.	225
Zhadan J., Sazonova T.	155
Zhuravleva M., Ryndina N., Martovytskyi D., Adeleke	104
Zienovieva O.	156