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«Actual Problems Of Clinical And Theoretical Medicine»

BIOMEDICAL SCIENCES

Aleksandrova C., Shaposhnik S.

AMYLOCLASTIC POWER OF BUCCAL EPITHELIUM CELLS AND THE INCIDENCE OF RESPIRATORY DISEASE AMONG THE CHILDREN OF SCHOOL AGE

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Introduction. Sometimes during the treatment of children, are needlessly used medicines that reduce immune system and body's resistance, instead of contributing to the rapid recovery. Therefore, it is necessary to use current diagnostic measures allowing accurately determining the causes of the disease and prescribe appropriate treatment.

One of the modern non-traumatic diagnostic methods of respiratory diseases is the determination of the buccal epithelium enzyme activity. After all, the epithelium of the mucous membrane is a major factor of the local immunity.

The aim of our work is to study the relationship between amylase activity of buccal epithelial cells and the morbidity rate of respiratory infections among the pupils.

Material and methods. The object of the research is buccal swabs taken from children aged 8-16, who often suffer from acute respiratory infections. 46 students of the Kharkiv Technological Lyceum №9 were investigated. They were divided into three groups:

I. Healthy children with the lowest incidence of disease;

II. Children with a high incidence of the disease;

III. Students with a high incidence of the disease who recently had a disease.

Each group included three age subgroups: 8-10; 11-13 and 14-16 years.

Sampling was carried out from 9 to 10 AM fasting by massaging the inner surface of the cheek with a cotton swab. Amylase activity of buccal epithelial cells was determined by the colorimetric Wohlgemuth method.

Results. The research has shown that healthy children have normal level of amyloclastic power of buccal epithelial cells. However, children who often suffer from respiratory diseases, have the substantially reduced rate. The lowest level of amyloclastic power was found among children, who had recently been ill. Among children who are often sick, but during the experiment were healthy, in two age groups from 8 to 13 years amylase activity was significantly lower than normal, but significantly higher than among children who have been

recovered. Among older children though, this value was within the normal range.

The conclusion. Thus, these data suggest the following conclusions.

1) The incidence and rate of susceptibility to infectious lesions of oral cavity depends on the level of amyloclastic power of buccal epithelium.

2) The degree of resistance of the organism depends on the age of the child, which is probably related to the level of the development of mucous membrane of the oral cavity.

3) The most vulnerable to respiratory diseases were the children of 11-13 years.

4) Determination of amyloclastic power of buccal epithelium may be recommended for wide use in clinical and laboratory practice for the diagnosis of respiratory diseases and an increased tendency towards them.

Anmalugsi Pius

INTERRELATION BETWEEN SEROTONIN CONTENT IN CEREBELLUM AND REGIONS OF EMOTIOGENIC LIMBICOCORTICAL SYSTEM OF BRAIN IN THE SUBMISSIVE AND DOMINANT

Research Advisor: PhD, Associate Professor Popova L.
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Actuality: Serotonin is believed to contribute significantly to the mechanism of genetically determined individual differences in aggressiveness. In men two forms have been described; impulsive and controlled (in animals-spontaneous and adaptive respectively). Impulsive aggression is observed in patients with depression. Submissive rat can serve as an experimental model of depression. Dominant rat demonstrate adaptive aggression. Anatomical and immunohistochemical studies shows that the cerebellum is extensively enervated by serotoninergic fibers and they modulate the firing rate of purkinje cells and cerebella nuclea. Serotonin is critical for cerebella development ans its normal function in the matured state.

The Aim: The investigation of correlation between serotonin content in cerebellum and frontal cortex plus hippocampus in submissive and dominant male rats.

Materials and Methods: Work was carried out on 24 male rats of the young reproductive period. Distribution of the animals into groups with alternative type of behavior was made using a model of emotion stress "sensory contact" with some modifications. According to results of the testing, the animals

were divided into 3 groups; dominant,balanced and submissive. Serotonin content in brain regions was determined by fluorometric micromethod.

Results: According to the results obtained the serotonin level was significantly decreased in all investigated brain regions of rats with submissive behavior type versus both balanced and dominant ones. In dominant animals versus balanced ones, the tendency to the increase in serotonin content was observed. Our results supports the assumption of Neumann I.D et al. (2010) about a different role of serotonin in adaptive form aggression such as social dominance (activation of serotoninergic neurotransmission) versus abnormal forms of aggression (reduced serotoninergic neurotrnsmission). Strong positive correlations were revealed between serotonin content in cerebellum and hippocampus, between serotonin content in cerebellum and frontal cortex in al investigated.

Conclusion: The decrease of serotonin content in all investigated brain regions in submissive rats indicates the importance of serotonin deficiency in the formation submissive behavior type. The same direction of serotonin changes in the the hippocampus, frontal cortex and cerebellum, strong correlation between serotonin content in cerebellum and frontal cortex/hippocampus of all behavior type rats is evidence of cerebellum involving in the formation of realization of submissive and dominant behavior types.

Avilova O.V.

METASTRUCTURE OF THE SPLEEN UNDER THE IMPACT OF TRYGLYCIDYL ETHER OF POLYOXYPROPYLENE TRIOL

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Actuality. The polyethers, as widely used xenobiotics not only in manufacture but in everyday life, have huge influence on human's organism, that dictates the need for thorough study of the impact of this chemicals on the spleen metastructure.

The aim of the study was to investigate the structural features of the spleen of rats under the impact of tryglycidyl ether of polyoxypropylene triol, that is related to the class of polyethers.

Materials and methods: The morphological study was performed

on white Wistar outbred rats, during 30 days to the animals was administered by mouth the chemical substance - tryglycidyl ether of polyoxypropylene triol in a dose of 1\100 DL50 by a metal probe. Changes were studied on paraffin sections using conventional histological and histochemical methods (hematoksylyn-eozin, pikrofuksyn by Van Hizonu, Feulgen-Rosenbeka reaction, Brush reaction, the Daniels reaction, and lipid staining on frozen sections by Sudan III).

Results: it is established that tryglycidyl ether of polyoxypropylene triol exposes nuclei of reticular cells of the spleen acquire an elongated shape.The nuclear membrane is smooth, loosened. The chromatin in the form of osmophilic lumps concentrated along karyolemma and had a homogeneous structure. In the center of the nucleus formed zone of very low electron density. A few mitochondria had a slightly elongated oval shape and localized mainly in the perinuclear cytoplasm. A significant number of mitochondria contained a large number of cristas. Mitochondrial membrane was partially destroyed. The granular endoplasmic reticulum is well developed, but it's cisternas are greatly expanded and formed a system of fairly large vacuoles filled with coarse-fibred substance of medium density. There were detected ribosomes on the membranes of the endoplasmic reticulum but in a very small number.

Conclusions: our study had revealed dystrophic and destructive changes of intracellular membrane structures, that shows activity reparative processes reduction, changes of cells bioenergy, that is structurally proved by destruction of membranes and mytochondria's cristas.

Berdikova Julia

FEATURES OF PENETRATIVE ACTION OF BULLETS AT SHOTS FROM AN AIR RIFLE DEPENDING ON A DISTANCE OF SHOTS

Research advisor: Prof. Olhovsky Vasily Alekseevich
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Actuality. It is known that the general regularities of penetrative action of the bullets which are let out from air rifles is that most intensively she is shown at shots at a distance to 5 m if the weapon is worn a little out, and to 5 m - on the worn-out weapon. Penetrative action of bullets depends on their speed at the time of a meeting with a barrier and, more, on the mechanism of action of a bullet. Most of the models pneumatic weapon are construct in this way, to provide starting velocity bullet 130-170 m / s.

The aim. Analysis of penetrative ability of bullets of "Diabolo-1" which are let out from the air rifle of "IZh-38" depending on the distance shots.

Materials and methods. Research was conducted on an air rifle of "IZh-38", cut, single shot, double-barreled, sports and mass, spring-piston, with the fluctuating trunk. Also had been used bullets "Diabolo-1", biodummies and not biological material (dry wood, linen fabric, porous cardboard).

Results. The report of results of experiment consisted in fixing of the maximum depth of penetration of a bullet into the object at blind damages. Shots in a biodummies was revealed steadily high ability of bullets at all distances of shots to 15 m inclusive. Damages has been presenting by blind bullet wounds from 3,5 cm to 8,4 cm in depth. Depth of damages of 5 cm is characteristic at shots in an emphasis, and also of distances of 5 cm, 10 cm and from 3 to 10 m inclusive.

Conclusions. Between distance of shots from the air rifle and depth of wound channels in targets there is an inversely proportional dependence: increase in the distance of shots, as a rule, it causes a decrease in the depth of the wound channels by slowing down the speed of flight of bullets that, in turn, leads to reduction of kinetic energy of bullets.

Bibhu Charan Nayak, Santosh Acharya, Sanipini Swati

SHORT TERM MEMORY: THE FEATURES OF REMEMBERING

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In modern society people often face the problem of information remembering. This stimulates us to use different types of our memory, especially short term memory the duration of which is, thus, of great importance. This fact makes the **topicality** of our research and causes our **goal:** to find out the features of short term remembering.

Memory is considered to be a process of encoding, storage and retrieval of different kinds of information. It is well-known that our memory can be considered as having three types: sensory, short term and long term memory.

In sensory memory information is being held for less than a second after an item is perceived. Short term memory (or working memory) gives an opportunity to recall information for a period up to a minute without repeating. The storage in these two types of memory is strictly limited in its duration in contrast to long term memory which can store larger quality of information which is supposed to be unlimited.

In everyday life short term memory is considered to be the most common. That is why its lasting has always been an object of different studies such as the Brown-Peterson technique which was provided to investigate the durability of working memory in terms of the multistore model. The experiment was held at a special laboratory. 24 students involved in the assay were asked to recall meaningless-three-consonants syllables called trigrams, e. g. NDF, RAN, ITK etc. It was necessary to prevent repeating so testees were told to count in 3 or 4 from a specific accidental number until the light signal appeared. Then they had to recall trigrams after a time span of 3–18 sec. The test showed that the amount of trigrams recalled depended on the length of the time interval. The students recalled 80% of information after 3 sec. but they could not recall more than 10% of trigrams after 18 sec. delay. Such results prove once more that information can be recovered from short term memory only during a short period of time (not more than a minute) and only if this information is still important.

Thus, short term memory is strictly limited in its duration in case of rehearsal prevented and any delay causes the lost of information from short term memory. We can also state that short term memory differs greatly from long term one in its

duration. Thus, we can state the existence of multistore model of human memory.

Boiko Kateryna Oleksandrivna, Terletska Evgenia Oleksandrivna

THE IMPACT OF PHYSICAL PERFORMANCE ON THE QUALITY OF LIFE OF YOUNG PEOPLE

Research advisor: Candidate of Medical Sciences Nazarko Natalia Mukolaivna
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Actuality: Individual physical fitness has a significant contribution in health formation, in the body's ability to effectively perform muscular work. But rapid civilization development has contributed to the deterioration of the motor areas of life through social problem number one - lack of physical exercises. Comprehensive valuation of health is based not only on objective data, but also on the subjective perception by man of psychological, emotional, social and economic aspects of life, namely quality of life and physical performance. However, their relationship is insufficiently studied.

Aim: To study the relationship of the quality of life of young people with their level of physical performance to motivat them for self-correction and exercising.

Materials and methods: 136 students of Bogomolets National Medical University, 21,8±0,3 years old, were assessed by pulse value of standard (Patent UA 34351 A) and questionnaire of the quality of life - SF-36 .

Results: Among the surveyed students there were 48,5% (percent) of students with reduced physical performance, 19,1% - with average physical performance and 32,4% - with increased physical performance. General health of students with high level of physical performance was significantly better compared with students with reduced physical performance and was 54,5±1,7 and 48,6±2,0 points respectively ($p<0,05$). Role functioning caused by emotional state significantly was the best of students with low and average physical performance and amounted to 59,1±2,6 and 46,2±5,0 points respectively ($p<0,05$), apparently because these students justified that physically less active, but anyway their lives quite diverse and their physical level are more than appropriate. Physical functioning, role functioning

due to physical condition, intensity of pain, vitality, social function and mental health were not significantly different between these groups (p>0,05).

Conclusions: Quality of life of young people depends on their level of physical performance scaled for general health and role functioning, due to emotional state, creating the need to modify their physical activity by developing individualized recommendations.

Bezega E. V.

MITES – PATHOGENS EAR MANGE (OTODECTOSIS)

Research advisor: Kulachenko Boris Vladimirovich
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Actuality. Ear mange (Otodectosis) is a widespread, acute or chronic course disease that cause members of the family Psoroptidae, of the genus Otodectes. Often the causative agents of the disease are transmitted from animals to humans and Vice versa. It is of great practical importance for medicine and encourages to study parasitic diseases of animals not only to protect your pet, but also information on possible future disease of the host.

The aim. To study the otodectosis of the disease and its danger to humans.

Materials and methods. The work was conducted in the spring and autumn period 2014-2015. During this period, ticks were examined in animals that were homeless. We surveyed animals found in parks, on the streets and garbage dumps of the city of Krasnograd, in the village of Gerbils and Pets whose owners have applied for examination to the veterinary clinic. During the period of study determined the sensitivity of the pathogen to high and low temperatures, set the sensitivity of the parasite to the action of ivermectin.

Results of the study. Known cases of infection by mites is people. It parasitizes in several months and causes inflammation of the outer and middle ear, allergic skin reaction to bites of parasite that is manifested by severe itching.

Conclusions. Analyzing the literature sources and the results of our research we can conclude: 1. The causative agent can be transmitted from animals to man. Cause itching, allergic reaction in the bites of ticks, inflammation.

2. Mites of the genus Otodectes scrod was sensitive to ivermectin, high and low temperatures.
3. Ear mange is characterized by skin lesions of the ears, external auditory canal and tympanic membrane, accompanied by itching, dermatitis (otitis media).

Cherniakova A. M.

THE ROLE OF S.AUREUS IN THE ETIOLOGICAL STRUCTURE OF INFECTED WOUNDS IN BURN PATIENTS

Research advisor: Minukhin V.V., professor
Microbiology, virology and immunology, Kharkiv National Medical University, Kharkiv, Ukraine

Actuality. The infected burn wounds are of serious medical, social and economic value. 75% of all deaths in the cases with severe burns (more than 40 % of the total body surface area) are currently related to sepsis from burn wound infection or other infection complications.

The aim of the research. Find out the bacteriological profile of post-burn wound infections and to determine the role of S. aureus in the etiology of infectious complications in burn patients treated at the Kharkov Burn Center.

Materials and methods: the wound discharge from the studied patients served as material for investigation. Specimens were collected as wound swabs. The organisms were isolated and identified by standard microbiological methods. The obtained results were processed using the statistical PC software.

Results: The study was carried out from 2007 to 2015 at the Kharkov Burn Center. 237 microorganism strains obtained from the burn patients were isolated and investigated. Gram-positive microorganisms were found to be more prevalent in burn wounds (135 strains were isolated that is 57% of the total number of received pathogens) whereas Gram-negative bacteria were found in 84 strains (35.5% of the total number of microorganisms). Candida fungi (18 strains -7.5%) were identified as well. It was found that S.aureus was the cause of infectious complications development in 104 cases (44% of the total number of the obtained microorganisms). This pathogen was associated with other agents in 6% of cases (Pseudomonas aeruginosa-8 strains, Proteus mirabilis-3, Candida fungi–4).

Conclusions: Our findings confirm with the available data of other authors, who noted "prevalence" of Gram-positive flora and 2:1 growth ratio of S.aureus and P.aeruginosa in blood cultures of the patients with burn sepsis. Disposal of

these data is of practical value for doctors and scientists for the improvement and development of new drugs to prevent septic complications occurrence in burn patients, as well as carrying out and developing new treatment strategies.

Chirva A.V., Sokol E.N.

STUDY OF THE EFFECT OF BACKGROUND COLOR AND FONT OF TEXT DOCUMENTS ON THE PROCESS OF ADAPTATION OF MEDICAL STUDENTS TO INTELLECTUAL LOADS

Research Advisor: PhD, Associate Professor Marakushin D.I.
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Actuality: Introduction. Paramount importance in the process of analytical and synthetic afferentation of the space surrounding belongs to the visual sensory system. For intelligent people, whose professional activity is connected with the reading of a large number of text documents relevantly is the efficiency of the visual analyzer.

The Aim: the goal of the study was to determine the optimal background and font to enhance mental performance and the efficiency of the visual analyzer in the process of formation of adaptive reactions to intellectual exertion.

Materials and methods. The study was made among 69 students of the 2nd course of medical University, has signed a voluntary consent to perform this study. Mental stability, indicators of attention, the efficiency of visual perception process was determined using "Schulte Table", tests Münsterberg and Bourdon. Mental capacity and mental rate was evaluated by the method Kraepelin.

Results and discussion. At the 1st stage we were using Münsterberg and Bourdon methods a black font on a white background. The level of concentration divided students into 3 groups: 1st – high level of 35.6%; 2-nd – medium – 55,2%; 3rd – low of 9.2%. At the 2nd stage we were using a green font on a white background. As a result, the level of concentration in all study groups was significantly increased, and redistribution in groups in the direction of increasing the number of students with a high degree of concentration. At the 3d stage used a green background and red font (green is calming, red – activates). As a result, all indicators had increased, but especially its volume. By using "Schultz Tables" the results of high concentration showed 48.3% of the subjects; the

average is 46.8 %. At the 2nd stage we were using purple and yellow font on a white background. Results significantly decreased and increased the task completion time, errors appeared while working with the 4th and 5th cards that testified to the fatigue of visual perception in continuous operation with the yellow font. Such association of colors has caused tension mechanism of the differential sensitivity of the visual analyzer. Only 37,3% of the students retained high.

Conclusion. The results of these studies allow us to conclude about the influence of background color and font of text documents on the indicators of attention (concentration, volume, distribution). Red font on a green background and green font on a white background improves the process of distribution and concentration. The optimal reactions to adjust and adapt to intellectual loads must correspond to the effective functioning of the visual sensory system.

Dobrovolskaya E.M., Maryenko N.I.

VARIANT ANATOMY OF THE LOBULES OF THE POSTERIOR LOBE OF THE HUMAN CEREBELLUM

Research advisor: Stepanenko A.Yu., Associate Professor
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Department of Histology, Cytology and Embryology
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Actuality. The cerebellum is one of the most important functional structures of the central nervous system, which provides statics and coordination, it is also involved in cognitive processes, emotional state regulation. Morphological changes of cerebellar lobules are found in many congenital and acquired diseases of the cerebellum, at various mental disorders.

The aim. To investigate individual variability and features of variant anatomy of the posterior lobe of the cerebellum.

Material and methods. Research was conducted at the Kharkiv regional bureau of forensic medicine on 230 cerebellums of people of both sexes, who died of causes unrelated to brain pathology, 20-99 years old.

Results. The shape of lobules that form the posterior lobe of the cerebellum is quite varied. Differences of the structure of these lobules depend on the characteristics of the branching of the white matter, the number and location of the secondary branches. Variants of the structure of different lobules are similar to each other. Zero variant of the structure – main trunk is divided into two main branches, there is not secondary branches. The first variant – one secondary branch leaves from the upper main branch. The second variant – one secondary branch leaves from the lower main branch. Third – one secondary branch leaves from the place of division of the main trunk. Fourth – the first secondary branch leaves from the upper main branch, the second secondary branch leaves from the lower main branch. The fifth variant - upper main branch divides into three secondary branches. The sixth variant: secondary branches depart from the upper branch sequentially. The seventh: upper branch generates one branch, which is divided into proximal and distal branches. The eighth variant – lower main branch divides into three secondary branches. The ninth variant: secondary branches depart from the lower branch sequentially. The tenth variant: lower branch generates one branch, which is divided into proximal and distal branches. The eleventh variant – the first secondary branch leaves from the upper main branch, the second secondary branch leaves from the place of division of the main trunk. The twelfth variant–

the first secondary branch leaves from the lower main branch, the second secondary branch leaves from the place of division of the main trunk. The thirteenth variant – both secondary branches leave from the place of separation of main trunk or secondary branch divides into two daughter branches.

Conclusions. Thus, it was found that there is individual variability of the structure of the lobules of the posterior cerebellar lobe, namely white matter branching features. 14 variants of white matter branching of the lobules can be identified. These variants occur with varying frequency. Described variants of the shape of the cerebellar lobules can be used as criteria standards of modern diagnostic imaging techniques for the diagnosis of various diseases of the CNS.

Dutchak S.R., Priadka T.M.

MEDICINAL ANALGESIC AND ANTIPHLOGISTIC THERAPY WITH AN EXTRACT COMFREY

Research advisor: Melnyk M.V., Candidate of Medical Sciences, docent
Department of Medical and Biological Chemistry, IFNMU, Ivano-Frankivsk, Ukraine

Actuality. Comfrey known use for the treatment of joints and healing of wounds in a variety of dosage forms. The most important compound that causes the most basic pharmacological properties of drugs made from medicinal comfrey is allantoin.

The aim of the research. Prepare medicalpellicles with different ratios of pellicle-forming materials and introduced them comfrey in the alcohol solution and dry weight; studied the physicochemical properties of the pellicles of comfrey, their ability to swell and output of active substances.

Materials and methods: The need for pellicle-forming materials be accessible, safe and biodegradable search led to compositions based on natural water-soluble polymers, gelatin, polyvinyl alcohol and starch.

Results: Individuals have our combination of biocompatible polymers are effective and safe when used as a means of stitching together of lactic acid and zinc oxide, forming a complex capable of increasing the strength of the polymer pellicle. Were selected the best value components that yield a film that rapidly degrade (1-2 days) and long-acting (7-10 days).

Conclusions: The experiments showed that the synthesized pellicle can be prolonged drug and allows it to maintain a constant concentration of active

ingredient allantoin over a longer time than one day. Study selection tannins with syntheticpellicle also will enable dynamic allocation evaluate these substances of synthetic drug pellicle.

S.R. Dutchak, T.M. Priadka

MEDICINAL ANALGESIC AND ANTIPHLOGISTIC THERAPY WITH AN EXTRACT COMFREY

Supervisor: Candidate of Medical Sciences, docent M.V. Melnyk
Ivano-Frankivsk National Medical University
Department of Medical and Biological Chemistry

Background. Comfrey known use for the treatment of joints and healing of wounds in a variety of dosage forms. The most important compound that causes the most basic pharmacological properties of drugs made from medicinal comfrey is allantoin. Results of clinical studies have shown that it promotes the growth of new fibroblasts - cells from which bones are built. It is established that the substance contributes to the formation and renewal of bone and connective tissue.

Medicinal pellicles are known for their properties as long-acting drugs have advantages over traditional methods of administration of drugs.

The purpose and objectives of the study. Prepare medical pellicles with different ratios of pellicle-forming materials and introduced them comfrey in the alcohol solution and dry weight; studied the physicochemical properties of the pellicles of comfrey, their ability to swell and output of active substances.

Materials and methods. The need for pellicle-forming materials be accessible, safe and biodegradable search led to compositions based on natural water-soluble polymers, gelatin, polyvinyl alcohol and starch.

The obtained results. Individuals have our combination of biocompatible polymers are effective and safe when used as a means of stitching together of lactic acid and zinc oxide, forming a complex capable of increasing the strength of the polymer pellicle. Were selected the best value components that yield a film that rapidly degrade (1-2 days) and long-acting (7-10 days).

Conclusions. The experiments showed that the synthesized pellicle can be prolonged drug and allows it to maintain a constant concentration of active ingredient allantoin over a longer time than one day. Study selection tannins with synthetic pellicle also will enable dynamic allocation evaluate these substances of synthetic drug pellicle.

Zupanets I.A.[1], Karnaukh E.V.[2], Filyanin S.I.[2]

BODY MASS INDEX AS ONE OF THE MARKERS OF METABOLIC PROCESSES IN BIOEQUIVALENCE STUDIES

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Actuality. Today in Ukraine there are about 14 thousand drugs, about 90% of which are generics. The most convincing method to confirm their interchangeability are bioequivalence studies.

In this article we study the influence of the body mass index (BMI) on the pharmacokinetic properties of drugs.

Materials and methods. Retrospective analysis of 15 bioequivalence studies carried out in Clinical and Diagnostics Center of National University of Pharmacy in the period from 2005 to 2015. There are 3 types of BMI: Low - 18,5-20,5; Medium - 20,6-26,5; High - 26,6-30.

Aim. The study of the impact of BMI on the pharmacokinetic parameters of the drugs.

Results. In healthy volunteers with low BMI the maximum concentration of test drug (Cmax) was more than 21% from healthy volunteers with high and medium BMI.

In healthy volunteers with high BMI (greater than 26,5) - time to maximum concentration of the test drug (Tmax) was higher by 27% than in healthy volunteers with medium and low levels of BMI.

Conclusion. The study found that at the planning stage of bioequivalence study we should take into account the probability of influence of different BMI types on the pharmacokinetic parameters; the medium level of BMI is optimal, because it allows the greatest effectiveness of the results of the bioequivalence studies.

Ganizade N.D., Sheyan D.N., Liutenko M.A., Topchyi S.V.

INFLUENCE OF THE ELECTROMAGNETIC RADIATION ON THE CENTRAL NERVOUS SYSTEM

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Actuality. Rapid development of telecommunications and computer technologies which have overflowed mankind about twenty years ago, proceeds and now. The level of electromagnetic radiations (EMR)

brings powerful contribution into environmental contamination. First of all, this problem concerns especially vulnerable members of the society who are most subjected to influence of fields - children and teenagers. In modern informational world, the basis of an environment of the child is occupied with mobile devices, gadgets with various kinds of access to the Internet, Wi-Fi routers etc. In the literature, accessible to us, we have found out some works devoted to the given theme in which frequency corresponding to given devices was used. In this connection we consider that all-round scientific researches allowing to prove the change of principles of criteria of safety are necessary for children, taking into account prospects of development of communications.

The aim to study influence the EMR on the nervous system.

Materials and methods. Experiment was made on 20 rats aged of 20 days that corresponds to age of the person from 6 till 7 years. Rats have been divided into experimental and control groups. Duration of an experimental part in each group was 30-50 days. Experiments were spent daily and automatically by device EMR with frequency of 1800-2100 MHz (frequency of modern mobile phones). It was disconnected once a day, during feeding and caring of animals contained in vivarium's conditions.

Results. Rats lost weight (45-60 g at the radiated group in comparison with 92-95 g at the control one), growth (a difference of 2-3 cm), were inactive, with the low appetite, the raised thirst was observed. Distinctions between brains in the weight (1, 65-2, 58 g at radiated and 3,97-4,05 g in normal) were observed. The functional characteristics of defeat CNS became appreciable: aggression display, unsteadiness, pendular movements by a head, the slow reaction to irritant influence.

Conclusions. It is necessary to develop ecological recommendations about influence EMR on children. We established pathological influence the EMR on a children's organism, in particular on CNS. We recommend excluding the influence of the EMR on children for prevention the development of possible pathologies.

Gubin N., Pogodina E., Drobotova K., Yarmak I.

FORENSIC-MEDICAL EVALUATIONS DAMAGESOF RESPIRATORY SYSTEM WITH ACUTE RESPIRATORY FAILURE

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Actuality. In specialized literature and legal documents in sufficient level, summation of features of acute posttraumatic respiratory insufficiency (ARI), which must be used for its forensic-medical evaluation. Not defined, in which the severity level of ARI, forensic experts in case of damages of respiratory system (DRS), affections of larynx, trachea, lungs, must evaluate this injury as dangerous for life. It should be noted that in different literature, the authors suggest different laboratory and instrumental parameters that characterize the signs and severity of ARI.

Purpose. Content analysis expert cases of injuries respiratory system, which complicated of ARI, for identify ways of improving forensic-medical diagnostics.

Material and methods. We analyzed the 87 conclusions of forensic-medical examinations connected with DRS form archives of Kharkov regional bureau of forensic medical examination from 2007-2015 years.

Results and discussion. The analysis of the observations showed that the greatest difficulties in the experts are the cases of forensic-medical assessment, blunt trauma of lung with occurrence hemopneumothorax and ARI, especially when not injured ribs. At examinations take place cases, connected with change the severity level of physical injuries, established during the initial and follow-up examination. Experts at carrying out such examinations in his conclusions refer to paragraph 2.1.2 "Rules of determining the severity level of physical injuries" and evaluate chest injury and its organs as severe physical injury as dangerous for a life. Then, during repeated examinations previously estimated severe level of physical injuries, changed to simple level of physical injury. The experts refer to the absence of ARI as a dangerous for a life events, in accordance with paragraph 2.1.3 "o" "Rules ...".

Based on a thorough analysis of contemporary literature, devoted to the diagnosis of emergency conditions, we selected ARI criteria, which can be used to improve the objectification and estimation at forensic-medical examination. Depending on the severity level of ARI, we have identified and grouped 14 clinical, instrumental, laboratory

parameters, which include the definition of partial oxygen tension and carbon dioxide in arterial blood, its acidity et al., which is quite objective and characterize four degrees of severity level ARI.

Conclusions. Forensic-medical evaluation of injuries DRS, which belongs to dangerous for a life, especially with the emergence of ARI has some difficulties. Usage at forensic-medical examination of well-defined clinical, instrumental and laboratory signs of ARI, increase objectification of expert conclusion and help avoid mistakes at determining the severity level of physical injuries.

Hladkykh F. V., Stepaniuk N. H., Sokyrko M. V.

THE EFFECT OF VINBORON ON THE EXPRESSION PROCESSES OF APOPTOSIS IN GASTRIC MUSOCA WITH IBUPROFEN-INDUCED GASTROPATHY IN RATS

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Introduction. Nonsteroidal anti-inflammatory drugs (NSAIDs) is the most popular for the treatment of a variety of diseases. However, their use can cause serious complications in the gastrointestinal tract. To identify the specific lesions of the stomach, associated with the use of NSAIDs in 1986 S.H. Roth suggested the term "NSAID gastropathy." From the literature it is known that one of the mechanisms ulcerogenic actions NSAID stands activation of apoptosis of epithelial cells of the gastric mucosa.

The aim: to rate according immunohistochemical study effect of ibuprofen (218 mg/kg) and its combination with vinboron (11 mg/kg) on the apoptosis of epithelial cells of gastric mucosa in the simulated adjuvant arthritis (AA) in rats.

Methods & materials. To assess the pathological changes in gastric mucosa studied experimental material produced from AA rats after administration of ibuprofen and its combination with vinboron. To examine apoptosis in caspase-3 (CPP32) was selected as a marker. The estimation of the expression of caspase-3 in the formulations of the gastric mucosa at 400-fold magnification in similar sections using a semiquantitative scale color intensity evaluation.

Results. The study showed that in the monotherapy group ibuprofen number of positively stained cells was more than 60%, which was significantly ($p<0,05$) higher than in intact rats and Group

combined use of ibuprofen and vinboron in which the figure was 10-30% .

Conclusions. Results of the study indicate the ability of ibuprofen act inducer of apoptosis of epithelial cells of the gastric mucosa. Vinboron gastroprotective effect manifests inhibition of apoptosis process, as evidenced by a decrease in caspase-3 expression in the cytoplasm of epithelial cells of the stomach.

Holnik Yana, A.V. Morozov

COMPENSATION OF CARBOHYDRATE METABOLISM AS A FUNCTION OF PHYSICAL ACTIVITY OF CHILDREN WITH DIABETES MELLITUS

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Actuality. Currently the treatment of diabetes is characterized by the inability of full compensation of the disease using only insulin, even with using the new forms. Approaches to the diet therapy continues to evolve. That's why it is reasonable the search of alternative ways to improve the compensation of diabetes mellitus of children, the special interest is a question about development of optimized physical activity (PA) of this group of sick.

Purpose of the study: Explore the indicators of compensation of diabetes mellitus of sick children with different level of PA.

Materials and methods: it is examined 37 children with diabetes 1 type 5-18 years old with the duration of disease 1-11 years. The examine includes the level of definition the compensation of carbohydrate metabolism (HbA1c average daily glycemic, daily variation of glycemia), conducting of survey the people with DM and level defenition of PA with using IPAS. Children were devided to the groups depending on the level of HbA1c with recommendation ESPAD (2009)- 1 gr.HbA1<7,5% (n=7); 2 gr.HbA1-7,5-9% (N=8); 3 gr.HbA1≥ 9% (n=22). For the level of PA the children were devided into groups: 1 group- PA≥ 21 b. (n=7), 2 group-PA=18-20 b. (n=7), 3 group -PA≤ 17b. (n=22). The statistic refinement was performed by using the application Exel and SPSS 17.0.

Results: it was found that the carbohydrate metabolism in the group is: HbA1 (9,7± 0,4)% and DG (10,7± 0,5) mmol/L, that confimed that the unsatisfactory compensation of the disease of most patients. With this the group3 with the less level of PA the indicators of diabetes mellitus is the worst: HbA1 – (11,1± 0,5)%, DG (11,3± 0,7) mmol/L compared 1 group (HbA1 – (9,3± 0,5)%; DG – (10,4± 0,6) mmol/l , p,0,05. It schould be hoted, the low level of PA

significantly move abserved about girls (52,4% as compared with 25,0% in boys, p=0,43), that the accompanied by their more severe decompensation carbohydrate metabolism in terms of HbA1 ((10,5± 0,5)% beside (8,9± 0,7)% in boys, p=0,47).

Conclusion: Children with diabetes 1 type,the low level of PA closely rekated with the worsening the compensation of carbohydrate metabolism, especially in girls.

Holovanova A.Yu., Pysarenko G.N.

ANTISTRESS ACTION of PYRACETAMUM For the IMMOBILIZED RATS of 2-X of MONTHLY AGE

Research advisor: Kirichek L.T., professor
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Actuality. Stress- it is a specific reaction of organism, a rising up in reply to the action of different unfavorable factors. Character of stress reaction for the children of junior age creates pre-conditions for the study offeatures of action of stressprotecters in these terms.

The aim of work was a study in the experiment of antistress action of Pyracetamum at the immobilized stress (IS) for the rats of 2-months age.

Materials and methods. Work is executed on 18 white outbred rats of both sexes 2-months age, Immobilization was created mass 90-100 fixing of rats on a back in the flow of 3 hours. Pyracetamum was entered singly i.p. in a dose 20 mgs/of kg 30 minutes prior to completion of design. About the reaction of organism on stress and his corrections it was judged Pyracetamum on the state the hypothalamic-pituitary-adrenal system (HPAS) and to the oxidizing equilibrium.

Results. It is marked as a result of the executed research, that IS for experimental rats shows up typical metabolic violations as an increase of foods PAUL (diene conugates and malonicdialdehyde), declines of activity of antioxidant enzymes(SODAS) and hyperglycaemia. HPAS of rats in these terms characterized by the increase of gravimetric coefficient of thymus and amount of Corticosteronum in blood, that and for intact animals differed in a high level as compared to adults, eosinopenia and some violation of trophism of mucous membrane of stomach. Under influence Pyracetamum all metabolic indexes are normalized, and outside HPAS is a gravimetric coefficient of

spleen. Thus there is a hypertrophy of, adrenal glands decline below of norm in them ascorbic acid, less expressed reduction of Corticosteronum in blood and tendency to renewal of amount of eosinophils.

Conclusion. Thus, IS for young animals accompanied by distorting the oxidizing balance, strengthening of functional activity of goitrous gland and adrenal glands, and also increase of level of blood sugar. Application of antistress preparation of Pyracetamum warns development of oxidizing stress and, strengthening the function of bark of adrenal gland, modulates activity of lymph- and genesis of corticosteroids.

Hryhorova M.V, Sokol A.A.

ADOLESCENT'S SENSORINEURAL HEARING LOSS. DRUGS USED IN TREATMENT

Research Advisor: PhD, Associate Professor Ananko S.J.
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Actuality: Looking at the statistics of adolescent's ENT diseases we marked, that there are some cases when subjective tinnitus appears. This condition is caused by sensorineural hearing impairment. We tried to find more effective treatments and drugs, which made the best dynamics of disease course. Sensorineural hearing loss is a group of diseases characterized by partial hearing loss and broken function of sound reproduction due to damage of relevant organs: the inner ear, auditory nerve or brain center, which is responsible for sound perception. This disease is very rare for children and it is often a complication of SARS or influenza. Also otitis media often leads to sensorineural hearing loss. This disease for children is characterized by noise and congestion in the ears, which is accompanied by partial hearing impairment.

The Aim: Drug-induced hearing loss therapy should be aimed to improve the state of the receptor structures; to normalize blood circulation and lymphocirculation in the inner ear and the brain; to normalize the tissue and cellular metabolism of the central nervous system.

Results: Recently in the treatment of sensorineural hearing loss medicine started to use the drug called "Vestibo" as it has very positive impact on children's recovery.

"Vestibo" is synthetic analogue of histamine. The main active ingredient - betahistine

dihydrochloride. Betahistine affects the cochlear blood flow and central vestibular system. It possesses strong central effect as nuclei H3-receptor antagonist of the vestibular nerve, normalises neuronal transmission in polysynaptic neurons of the vestibular nuclei in the brainstem level. "Vestibo" indirectly affects the H3-receptors, increases the amount of serotonin in the brainstem, reduces the activity of the vestibular nuclei. It promotes the elimination of violations of the vestibular and cochlear system: reduces the frequency and intensity of dizziness, reduces noise in the ears, improves hearing in the case of its reduction. Drug stimulates the H1-receptor, so there is no sedative effect. Moreover, "Vestibo" has indirect effect on the arterioles and capillaries that are located in the inner ear, it helps to increase the vessel lumen, leading to an improvement of the blood flow. Under the influence of the drug also seen the improvement of cerebral blood flow in the carotid and vertebrobasilar systems. After oral dose betahistine is rapidly absorbed from the gastrointestinal tract.

Conclusions: During the research of the drugs for treatment of children's sensorineural hearing loss we can mark positive results in the usage of "Vestibo" drug (or its analogues): children's auditory perception has improved and the noise in ears reduced greatly.

Ivanova V.S., Sokol H.N.

INFLUENCE OF THE EFFECTIVENESS OF THE WORK OF PROPRIOCEPTIVE SENSORY SYSTEM ON THE FORMATION OF ADAPTATION TO THE INFORMATIVE STRESSOR

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Introduction. The learning process at the Medical University during the first 3 years is associated with a significant amount of theoretical material that students should learn and be able to apply in practice. The problem arises in the integration of extero- and interoceptive sensory system that reflects on the effectiveness of the decisions taken by the brain and increases the "price of adaptation" to the effects of informative stressor.

Objective: the purpose of the study was to examine the relationship between proprioceptive perception and the process of formation of adaptive reactions of medical students to prolonged affection of the informative stressor.

Materials and methods. In research took part the students of the 2nd course of medical university, who signed a voluntary consent to perform the research. Differential sensitivity of the proprioceptive sensory system was investigated according to protractor`s indications during the student`s playback of specified movements in the space. The time and precision of playback of movements were considered. The ability to adequate afferent synthesis was evaluated by the sensorimotor response SMR to the sound. The state of anxiety as a psycho-physiological property of personality was investigated using self-test of the level of personal and reactive anxiety according to the scale Spielberg-Hanina. With the help of a survey each study group was divided into three subgroups according to the degree of physical training. The calculation of Kerdo autonomic index and Hildebrant`s index was made in order to clarify the level of physical training and questions of autonomic reactivity, autonomic support of activities of the body in the dynamics of adaptation to the informative stressor. The indicators of mental health and mental pace were determined by the method of Kraepelin.

Results and discussion. In the initial stage of the study three groups of students were formed according to the level of physical training: not athletes with a low level of physical training (Group 1)-17.4% of students; not athletes with an average level of physical training, which do regular exercises almost regularly (Group 2)-69.3%; the third group consisted of athletes with moderate exercise schedule - 13.3% of the students. On a scale of testing of Spielberg-Hanina most students (79.5%) with a high level of anxiety are determined in the group №3. This group also showed the maximum number of students (67.3%) with errors (11.8%) during performing tasks on proprioceptive perception. Accordingly, in this group mental operability and mental pace according to Kraepelin`s method showed a low percent of the volume of executed work and an increased number of errors in its execution. Indicators SMR to the sound were quite high.

Conclusion. The proprioceptive sensory system of the students who exercise their body systematically and metered showed its effectiveness in the process of forming of adaptive reactions to the informative stressor.

Kalashnik E.I., Sheyan D.N., Liutenko M.A., Topchyi S.V.

THE REASONS AND KINDS OF DALTONISM. CHANGES OF THE COLOUR, RECEPTORS OF THE EYE

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Actuality. Ability to distinguish colour and shades is of the huge practical value for the person. When business concerns certain areas of life inability to distinguish colours can become a serious problems. From references it became known that the reason of impossibility of the adequate colour perception is the dysfunction of cones. Daltonism divides into three types: abnormal dichromate, dichromate, monochromatic, the perception of dichromate: deuteranopia, tritanopia. Daltonism signs are individual in each specific case but, nevertheless, there are common features.

The aim to study features of sight at the people suffering daltonism, to check up and compare accuracy of trouble-shooting tests on revealing colour blindness. Material and methods. Experiment was spent by means of polychromatic tables by Rabkin and trouble-shooting test of Ishihara. Colour perception check was done on volunteers aged from 20 to 45 years, from which 24 men and 13 women were suffering hereditary daltonism. Visual acuity was 100 %.

Results. During testing, it has been established that examinees can distinguish the next colours: dark blue, pink, and also a violet shade and their combinations. A combination of the red and green were perceived as one colour. At passing the Ishihara test examinees defined the majority of the colours represented in drawings almost without effort and only some images have caused difficulties. In a case with polychromatic tables by Rabkin the results completely coincided with the description have been confirmed at 14 men and 7 women with colour blindness in a green part of a spectrum - deuteranopia. The blindness in the red part of a spectrum, protanopia, was revealed at 5 men and 2 women. At other people abnormal trichromate has been revealed.

Conclusions. By results of testing, polychromatic tables by Rabkin have shown split-hair accuracy in comparison with the Ishihara test. Having studied materials on the given theme it became known that number of colour-blind people among men are much more than among women (8 % and 0,4 % relatively). Medicine for daltonism treatment does not exist, however successful results of treatment of daltonism at monkeys by means of methods of gene engineering have been published in

2009. Also there are methods of correction of colour perception by means of special lenses. Colour-blind people are normal and adequate people who have no other problems with health.

Kalinichenko D.

INFLUENCE OF NUTRITION AND METHOD OF THE POWER FOREIGN STUDENTS ON THE STATE OF THEIR HEALTH

Research advisor - Associate Professor Digol L.G.
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Actuality. Every foreign student aspiring to study abroad inevitably faces a number of problems associated with the new language, cultural and social environment. Factors such as isolation from the home, poor nutrition have a significant impact on the health of students and, respectively, to their academic performance. The increase in students about the diet products of rapid preparation of food containing different flavors, jams, dyes, modified components becomes a serious risk factor for many diseases.

The aim of studying is identify the relationship between the nature of nutrition of foreign students and their state of health.

Materials and methods. A survey of 40 students from Turkmenistan (40%), Uzbekistan (37.5%), Azerbaijan (27.5%) and Georgia (20%). The questionnaire included questions concerning the type of food, caloric intake and food preferences, and changes in health status after his arrival in Ukraine.

Results. The results showed that the type of food the students are divided to three groups: 27.5% preferred to eat in the university cafe, as much in the national cuisine restaurants, 45% - at home. The average caloric intake of the students eating in the university cafe was 1760 kcal, the students eating in the national cuisine restaurant - 3800 kcal, at the home diet - 2600 kcal, while as in mental work on average need to consume 2300 kcal. The increase in the diet of fast food foods mentioned 50% of the students. Studying of revealing health surveying students deterioration to 45% of students, with 67% of these were gastrointestinal disease in the 22% - metabolic disturbance (obesity), in 11% of cases - cardiovascular diseases.

Conclusions. Results of the study indicate that foreign students health has a significant impact not only life style associated with high mental stress, but also eating habits in a new environment too. Changes in the nut, cooking techniques, diet

require a certain period of adaptation and can lead to an increase in chronic diseases and disability of students of higher educational institutions.

Khalimov E.G., Sokol A.A.

PHYSIOLOGICAL CHARACTERISTICS OF CEREBRAL CIRCULATION IN THE PRENATAL

Research Advisor: PhD, Associate Professor. Vashuk N.A.
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Actuality: Study of the physiological characteristics of cerebral circulation in the prenatal is an important subject, because for a normal development of all organ systems, particularly the brain must be adequate provision from the circulatory system.

Results: Having analyzed literary sources, I found that blood vessels begin their development with scattered vascular plexus formed between the endoderm and mesoderm of the yolk sac, i.e outside of the embryon body. The internal carotid artery (one of the main sources of blood supply to the brain) are derived from the third pair of gill arches (carotid arc) .In front of the arc dorsal aortae form the continuation of the internal carotid artery. Each divided into anterior and posterior branches, the first branch is given to the eye, the anterior and middle cerebral arteries, and latter turn back and join to the cerebral part of vertebral artery.

Microcirculation of the brain is derived from the radial vessels extending from the pial arteries. Different brain structures have unequal capillary density, the location of which is depends on further functional part of the brain important: in the gray matter exist more developed capillary density than in white; in the cerebral cortex, cerebellum and paraventricular hypothalamic nuclei of these vessels is greater than in other regions of the brain. The primary blood collection system of capillary head consists of a primary head vein. The primary head vein flock dural front, middle and rear capillary plexus. Due to the growth of the auditory capsule and middle ear former course of the primary head vein becomes unprofitable, and one of its areas is atrophy. To make the necessary adjustments, above the otic capsule is formed anastomosis and

secondary plexus are now flows into the rear plexus. All that remains of the primary veins of the head can be called cavernous sinus. The drainage of the cavernous sinus is done through the barrel middle plexus, which gives rise to the upper sinuses, and through it goes to the formed spinal canal, giving rise to the transverse sinus.

Conclusions: So I considered the development of the main blood vessels that participate in the blood supply to the brain. It can be concluded that the central nervous system, particularly the brain, has a close relationship with the circulatory system, without which normal developmenti is impossible.

Khromey E.

THE INFLUENCEOF LOW FREQUENCY LASER LIGHT ON THE SENSITIVITY OF ERYTROCYTES GLYCOCALIX

Research Advisor: professor Ieshchenko V.
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Actuality: The majority of the people of Ukraine use mobile network. There are messages that electromagnetic radiation has an adverse effect on the human organism. But the mechanisms of such activity are not fully studied.

The aim: to study the change of the sensitivity of erythrocytes glycocalix to the low frequency laser light (LFLL), primarily subjected to the influence of electromagnetic radiation (EMR) which is characteristically close to the standards of the mobile network GSM 900.

Materials and methods: The experiments were conducted with the frog erythrocytes. Blood was put under the source of EMR. The density of the flow of radiation made up 5 mWt/cm2, the exposition made up 20, 40,60,80,100 min.. after the expiration of the periods of time the blood was taken away to study the saturation ability of glycocalix before and after the influence of laser light. All the samples were incubated with the dye alcian blue during 30 minutes, after what with the help of centrifugation in the supernatant liquid the contents of the dye were determined.

Results: It was determined that, after the influence of EMR the erythrocytes became more sensitive to laser light.

Knigin M.

FACTORS, WHICH INFLUENCE THE PROCESS OF SELF-EXCITATION OF THE HEART

Research advisor: Vashchuk N., associate professor, PhD
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Actuality. Ability of action potential spontaneous generation with no any external stimuli (automaticity) is a characteristic of atypical cardiomyocytes, which make up cardiac conduction system. This potential spreads over the myocardium, causing cardiomyocytes conduction. Heart is devoid of extracardiac innervation, but because of intracardiac nervous system availability, heart sustains its`s pumping function. Efferent fibers and atypical myocytes form irritant cardiac conduction system for typical cardiomyocytes. Electrocardiography is one of cardiac automaticity research methods. ECG results primary depend on anatomical individuality of cardiac conduction system, on ratio of right and left ventricle muscle mass, on heart surrounding tissues electric conductivity and substantially on nervous system reactivity of different people – features of nervous reaction on internal or external impact influence factors.

Results. There were 28 ECG-examinations analyzed. It was founded, that internal and external organism factors may influence on cardiac automaticity. There are also a lot of physiological conditions may influence electrocardiography, they are – breathing, physical irritants, food consumption, drugs affection, conditioned irritants and body position. During breathing act, especially in act III, ECG peaks direction and amplitude are very sensitive to any axis deviations during inhalation and exhalation. During inspiration process, R-wave decreases in act I and increases in act III, as for S-wave, it decreases in act III. During deep inhalation, T-wave decreases in act I, in act III T-wave increases or becomes distorted, it becomes negative instead positive, or vice versa. Primary, this changes are caused by heat reposition during inhalation and exhalation. Physical exercise always cause deep changes in ECG-examination results. In healthy person, it usually appears as heartbeat rhythm acceleration. During functional testing with physical activity, there can be found changes which may clearly show pathological changes in the heart, they are: presence of severe tachycardia, arrhythmia, atrial fibrillation, heart blocks et. According to this, ECG-examination allows us to determine pathology of almost all basic heart physiological processes. Presence of rhythmic

complexes on ECG, tells us about sinus rhythm. Speeded, comparing with the norm, heart rate tells us about tachycardia, slowed down heart rhythm is called bradycardia. Sometimes, during inhalation in exhalation process, heartbeat rate may increase or decrease. This arrhythmia is called respiratory arrhythmia, because it arises as a result of vagal nerve tone changes during breathing phases change. Rhythm disturbances are also express as so-called "nodal-rhythm" appearance, in which master node role leads to atrioventricular node.

Kolodyezna T.Yu., Dobrova V. Ye.

THE ANALYSIS OF THE UKRAINIAN RECS WORK AS A PART OF THE TRIAL SUBJECT PROTECTION SYSTEM

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Background. Ukraine has high potential in the field of clinical trial (CT) of new drugs holding. According to the regulations in CT holding the start of any CT is impossible without its approval by the research ethics committee (REC). RECs are the third party in the trial subjects' protection side by side with State expert center and researchers. Our analysis of literature sources showed that the world's great attention is paid to assessing and improving the quality and efficiency of the RECs work. In Ukraine there are about 500 local research ethics committees (RECs) that perform the review of different health research projects including clinical trials of drugs and medical devices. As for today their work isn't studied enough. This could hinder the effective protection of human subjects.

The aim of this work was to study approaches in RECs organization in Ukraine and to identify challenges to the effective functioning of the REC system in Ukraine for increasing the trial subjects' protection.

Materials and methods. The interview of the 104 RECs was held to evaluate the accordance of the RECs to the regulatory requirements. The developed questionnaire consisted of two parts and contained questions about RECs' work organizing, membership and members' educational training. The analysis of the obtained results was made with the help of generalization, modeling and content analysis methods.

The results. The analysis of the obtained results showed that most of the RECs (60.9%) are functioning 6 – 10 years. At 26% of

RECs the head and at 78.3% - members of RECs were assigned by the healthcare institutions administration where the RECs are functioning. The head appointment by the healthcare institutions administration contradicts with the national regulations. Also this could be the reason for possible conflict of interests during ethical review of the CT since on this fact shows the dependence of the RECs from the healthcare institutions administrations.

100% of RECs use national regulations in their work; 95.7% use GCP, 65.2% - declaration of Helsinki, other documents are little known and used in work. This shows not enough awareness of RECs in international regulations for CT. 17.4% of RECs don't use their policy in work what contradicts with the regulatory requirements and could lead to decreasing of the trial subjects' protection.

26.1% of RECs have conflict of interest with the researchers and 60.9% - don't have any. But our research showed that they could have latent conflict of interest.

Conclusions. Our study showed the need of farther research on RECs' work, elimination of conflict of interest and development of tools to assess the quality and effectiveness of the RECs work to increase the trial subjects' protection.

Kolotilov A., Likha V., Kovaliov M.

THE INVESTIGATION OF THE MENTAL EFFICIENCY IN THE DYNAMICS OF THE EDUCATIONAL MOTIVATION DEVELOPMENT IN STUDENTS WITH THE INDIVIDUAL CHARACTERISTICS OF THE INNER TIME FLOW RATE

Research advisor – PhD., Assoc. Marakushin D.
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Actuality. Nowadays, the problem of the increasing number of people, who feel informational overstrain, is topic. It is more actual for students. The mental efficiency of person is determined by many factors, the main of them are the level and the condition of the health, the dynamics of the educational motivation development, the individually – typological features of nerves system and the psychophysiological perception of the time.

The aim of the research was to study correlations of the individual flow of the inner man time, the mental efficiency and the dynamics of the educational motivation development in adaptation conditions to the informational stress.

Materials and methods. The resource was conducted on 46 medical students, agreed to take part in the experiment. To determine the flow rate of the internal time measured the length of the individual minute and evaluated the accuracy of measuring a set time interval. The mental efficiency was evaluated by Kraepelin's test. The changes of the motivation to the cognitive activity was studied by the repertory grid technique of J. Kelly.

Results. Students have been divided on 3 groups according to the main types of individual internal passage of time: accelerated, decelerated and "balanced" (the flow rate of the internal time was the same with the flow rate of the physical time, the error does not exceed 5 seconds). Students with accelerated flow rate of the internal time (13,9% testees) have showed the highest level of the mental efficiency productivity – 89, 9% of the right answers, in the same time they have showed the hight number of the mistakes – 19, 7%. In this group student have demonstrated the most exsperssed emotional reaction to fails and the approach to the tests as a competition for the best result. In the dynamics of the educational motivation development extremly changed – from the highest interest to the complete apathy. The mental efficiency of students with decelerated flow rate of the internal time (22 % of the testees) was the lowest (they solved only 42,3%), but the number of mistakes was in 2,5 times lower than students from the first group. The dynamics of the educational motivation rose slowly. The amount of the ”balanced” students performed work (63,9%) was 78,5% with the lowest number of mistakes (3,4%), which corresponded the highest efficiency. The dynamics of educational motivation characterized ensure sustainable growth.

Conclusions. Internal time flow rate fairly reflects qualitative and quantitative indicators of the mental efficiency and explains the personality of the educational motivation development.

Korsunov K.V

MONOAMINE CONTENTS IN CEREBELLUM OF BRAIN IN SUBMISSIVE AND DOMINANT RATS

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Actuality. Neurophysiological and biochemical studies of neurotransmitter status, providing the aggressive and depressive states formation, mainly focused on structures of emotiogenic limbic-neocortical systems of brain. At the same time, the role of cerebellum in these processes has not been studied, although cerebellum, which is an important structure of locomotor function regulation, obviously is involved to the realization of aggressive behavior. Furthermore, in recent years the articles, according to which the cerebellum is involved in regulation of higher cognitive and emotional functions, were published. Two forms of aggression in men are known to be described: impulsive and controlled (in animals - spontaneous and adaptive, respectively). Impulsive aggression is observed in patient with depression. Submissive rats can serve as experimental model of depression. Dominant rats demonstrate adaptive aggression. Monoaminergic brain systems have a great influence on the emotions and behavior in humans and animals and are involved in development of depression and aggression.

Aim. The aim of the investigation was to study the contents of serotonin, norepinephrine and dopamine in cerebellum of submissive and dominant rats.

Materials and methods. Work was carried out on 24 male rats of the young reproductive period. Distribution of animals into groups with alternative types of behavior was made using a model of emotional stress “Sensory contact” with some modifications. According to the results of testing, the animals were divided into 3 groups: dominant, balanced and submissive. Contents of dopamine, norepinephrine and serotonin in cerebellum were determined by fluorometric micromethod.

Results. According to the results, submissive and dominant rats differ in content of all studied parameters in the cerebellum. In dominant rats the serotonin and dopamine contents were higher, and the content of norepinephrine was lower compared to submissive animals. Rats with a dominant type of behavior didn't differ from balanced animals on the content of dopamine and serotonin, but the noradrenaline level in the

cerebellum of these animals was reduced. Serotonin and dopamine levels were significantly lower in cerebellum of submissive rats compared with balanced animals. These results are consistent with previous data on the content of biogenic amines in the hippocampus and frontal cortex.

Conclusions. Taking into account the neural connections of the cerebellum with the cerebral cortex and limbic system structures and the same direction of biogenic amine content changes in cerebellum, frontal cortex and hippocampus, it can be assumed that the cerebellum is involved in the formation of dominant/submissive behaviors, in the development of aggressive and depressive states.

Kuznetsova D.

RECENT DATA ABOUT MOLECULAR UNDERPINNINGS OF METABOLIC SYNDROME PATHOGENESIS

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Actuality: Metabolic syndrome includes diabetes, obesity, arterial hypertension, ischemic heart disease. This syndrome got a title ”deadly quartet”.

Pathogenesis of metabolic syndrome is very complicated. It is studied intensively.

Materials and methods: Nowadays a great attention is payed to the part of insulin resistance as a link of parts of metabolic syndrome. Hyperglycemia is developing without insulin and it stimulates secretion of insulin, so increasing of insulin level in plasma can cause heavy insulin glycemia redoubles ability of angiotensin II to activate a nuclear factor kB (NF-kB) in smooth muscles cells of vessels. Under influence of different factors NF-kB is been transporting from cytoplasm to nuclear and activates a big amount of genes. NF-kB is one of the key molecules detecting proinflammatory reactions in cells and stimulates synthesis of the TNF-α, IL-1, IL-6, which cause insulin resistance. Most lipids, including nonesterified fatty acids, can activate NF-kB. Lipotoxicity declares itself as ”adiposopathy”. Adipocytes and macrophages, infiltrating adipose tissue, secretes mediators of inflammation, which, in addition, aggravate atherogenesis.

Results: So, insulin resistance, arterial hypertension, dyslipidemia, cardiovascular diseases can be considered as manifestations of

pathological process, central molecule of which is the activated NF-kB.

Markiv A.I.

FEATURES OF THE CARDIOMETABOLIC DISORDERS AND STRUCTURAL-FUNCTIONAL STATE OF MYOCARDIUM IN PATIENTS WITH HYPERTONIC DISEASE AND DIABETES MELLITUS

Research advisor: Bobronnikova L.R., professor
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Actuality. Essential hypertension (EH) and diabetes type 2 (DM-2) are the two of the most developed diseases in the world. Comorbidity of EH and DM- 2m may cause the early development of damages of target organs and subsequent cardiovascular catastrophes. The EH and DM-2 share many common pathogenic mechanisms that influence on the development of comorbidity.

The aim of the research. To make an analytic review of literature about features of metabolic disorders in patients with essential hypertension and impaired body weight, identify the relationship between structural and functional parameters of the left ventricle (LV) and the daily profile of arterial pressure (BP) in patients with EH in combination with DM-2.

Materials and methods of research. 85 patients (47 men and 38 women) with EH 2 stage and 2 degree. The average age of the patients was 56,8 ± 4,6 years. Depending on the body mass index (BMI), the patients were divided into groups: group I (n = 43) BMI averaged 32,07±3,12kg / m^2; group II (n = 42) - 25,07±4,22kg / m^2. The average blood pressure in patients of both groups was: SBP 160,50 ± 2,14 and DBP 97,40 ± 1,91 mm hg. We evaluate the performance of transthoracic echocardiography parameters and daily monitoring ofBP (DMBP).

The results of the research. In the I group the content of total cholesterol (TC) was on average 23% higher in comparison with the indexes of group II ($p < 0.01$), concentration of LDL cholesterol increased by 30% ($p < 0.01$) with a decrease in cholesterol levels HDL by 29% ($p<0.01$). The degree of reduction of nocturnal SBP was associated with BMI ($r = 0,52$; $p < 0.05$).

The content of C-reactive protein (CRP) of blood serum in patients in group I was 49% higher in comparison with indicators of group II ($p < 0,01$) and correlated with SBP ($r = 0,37$; $p < 0,01$), content

of LDL cholesterol (r = 0,42; p <0,001) and VLDL (r = 0,39; p <0,001). In patients from the group I was found a significant increase in left ventricular posterior wall thickness (TZSLZH) by 17% (p <0.05) and the size of the left atrium (LA) by 20% (p <0.05). In Group 2 patients revealed a direct correlation between blood pressure variability and TZSLZH (r = 0.67; p <0.05) and an inverse correlation between average daily variability of blood pressure and the maximum rate of early diastolic wave motion of the mitral valve (r = -0.51; p <0.05).

Conclusion. The state of GB and diabetes type 2 in people with abdominal obesity appears much more expressed changes in systemic metabolic changes and progression of atherogenesis. It was found the increase of blood pressure variability with a predominance of concentric LV hypertrophy (68% of patients) with the formation of diastolic dysfunction.

Martynenko A.A., Zelenskaya A.N.

PSYCHO-PHYSIOLOGICAL FACTORS OF ADAPTATION IN MEDICAL STUDENTS TO PROLONGED ACTION OF INFORMATIONAL STRESS

Research Advisor: Assistant of Professor Marakushin D.I.
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Introduction. According to the WHO in 2001 a fundamental rule of ability to live in happy healthy human body is "ability to adapt to ever-changing conditions of the external and internal environment". In modern conditions of scientific and technological progress a person must conscious and motivated to take responsibility for their own health. This is especially true of people whose professional activity is associated with the dominance of mental work on the background of long-term exposure information stressor.

Objective: the purpose of the study was to find the ways to improve the efficiency of the mental works in medical students with condition of preservation the healthy functioning of the body.

Materials and methods. The study involved students of the 2nd course medical university, who signed a voluntary consent to perform the research. Indicators of mental health and mental pace determined by the method of E. Kraepelin. The ability to adequately afferent synthesis was evaluated by the sensorimotor reaction (SMR) on the sound. Psychophysiological

condition of the person evaluated on a scale Spielberg-Hanina. Eysenck test for IQ level were performed in conditions of emotional well-being, to the maximum level of error from the emotional stressor. Efficiency of the general adaptive reaction, vegetative reactivity and vegetative support of the organism were carried out by calculating the vegetation index of Kerdo and Hildebrant index. Deviation these indexes from standard values indicates the degree of misalignment of the vegetative regulation of visceral systems in the process of adaptation to the informational stressor.

Results and discussion. In the initial research stage a group of students in the amount of 35 people with an average IQ level has been formed. On a scale SpielbergHanina testing, study group was distributed as follows: 18.9% were students withhigh levels of anxiety (Group 1); 60.7% showed an average level of anxiety (Group 2); 20.4% of students with low levels of anxiety (Group 3). Accordingly, in each group was carried out tests of mental operability and installation work on the sound at the beginning of research and in the dynamics of training during the school year before the exams. At the end of each semester determined the level of anxiety. During the semester pedagogical observation conducted the degree of systematization the accumulation of knowledge by students and their efficiency of assimilation, as well as psychological and pedagogical correction of training mental operability.

Conclusion. Students who regularly maintained their professional knowledge at a level sufficient to perform the program tasks of training, have shown efficiency of mental work and reducing mental stress. For maximum number of students of this group (84.7%) general adaptation reaction of the body to the action duration of the information stressor defined as adaptive response training.

Maslova J.

FEATURES OF THE ACCOMMODATIVE-CONVERGENCE SYSTEM OF TEENAGERS

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Actuality. Conservation of visual function of teenagers and creating essential conditions of formation of visual system taking into consideration physiological features of an organism.

Aim. Necessity of studying age features of the accommodative-convergence system of teenagers to reveal the basis laws of adaptation to visual load.

Matherials and methods. The near point of convergence is a complex characteristic of the accommodative-convergence system and is defined as the minimum distance from eyes. The least distance of distinct vision (LDDV) is defined monoculary (excluding accommodative convergence, i.e. the strengthening of the accommodation at the convergence). Investigation of the least distance of distinct vision (LDDV) and the near point of convergence was conducted on 48 students of 2nd year at the age of 19 - 20 years. Of them 21 persons are males and 27 persons are females.

Results. Mean value of the LDDV of males in 19 years is 8.1 cm (OD), 7.4 cm (OS), in 20 years is 8.5 cm (OD), 7.6 cm (OS); the NPC in 19 years is 5.9 cm, in 20 years is 6.8 cm. Mean value of the LDDV of females in 19 years is 7.4 cm (OD), 7.1 cm (OS), in 20 years is 8.7 cm (OD), 8.0 cm (OS); the NPC in 19 is 5.3 cm, in 20 years is 7.9 cm. From these facts we see that the convergence leads to increased accommodation approximately on 1.5 D. The position of the NPC is removed from the eye with age, and this is more pronounced in the group of females. This process testifies about worsening of the functional capabilities of the visual system, especially among females. It is generally accepted that the completion of the formation of the visual system occurs in 15-16 years. However, according to the survey, the processes of changing of functional parameters are not finished. In any functional system after its "gestation" should be a period of a stable functioning. In the visual system, this interval should include the period between 15 - 16 years and up to 30 - 40 years old. Based on these results, we can say that the formation of the visual system gradually goes to its functional worsening without stabilization phase.

Conclusions. It turns out that any other functional system of the body, which is subjected to load at full capacity, trains and improves its function, i.e. through stress produces structural trace of adaptation. When the visual system is subjected to load at full capacity, training of system and improvement of its functions does not occur, in contrast the worsening of its capabilities and reducing of reserves, up to development of spasm of accommodation and myopia occurs.

Matsak Denis

ANATOMY OF POLYCISTIC KIDNEYS

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Actuality: Kidneys are the one of the most important organs of the urinary tract. A kidney is a parenchymatous organ which basic function is to remove excess of water from blood, electrolytes, and waste products of metabolism. There are many kidney pathologies which lead to dysfunctions of these organs. One of them is polycystic kidney disease. Polycystic kidney disease is a cystic degeneration of a kidney parenchyma. Cysts form as a result of the increased proliferation and tubule epithelium differentiation of nephron. As a result instead of regular there form bubbles filled with primary urine – cysts which lead to the considerable increase of a kidney in size. Polycystic kidney disease can be two types: acquired polycystic kidney disease which occurs as a result of a long-term nephratonia and autosomal dominant polycystic kidney disease, more rarely autosomal recessive polycystic kidney disease which is a congenital pathology. This pathology manifests clinically in children very rarely. As a rule disease manifestation is registered in people elder than 30 years old but with age the incident frequency increases. Polycystic clinical pattern is characterized by erythrocyturia, arterial hypertension (BP > 140/90 mm Hg), renal pain especially at early stages. Pain syndrome is stipulated by cystic pressure on adjacent structures , cystic hemorrhage, cyst rupture. With the help of the ultrasound investigation it was determined that average size of a healthy kidney is: length – 11,23 cm, width – 5,52 cm, thickness – 4,23 cm, the parenchyma thickness – 1,69. Kidney increase is typical for polycystic kidney disease. The following results were made after 30 patients aging from 30 to 60 years old with polycystic kidney disease had been examined with the ultrasound: right kidney in average – length – 15-20,6 cm, width – 8,12 – 10,7 cm, parenchyma thickness – 1-1,2 cm, kidney thickness – 7-8,26 cm. Cysts are revealed at polycystic kidney disease. The size of cysts in average are: 1-5,16 cm.

Conclusions: Polycystic kidney disease has following characteristics- kidney increase in both length and width due to the cyst growth, thinning of a kidney parenchyma. As a rule above-described structural changes lead to the development of nephratonia. Due to this disease hemodialysis or

peritoneal dialysis must be prescribed to patients with this pathology.

Dr. Alexander Mokanyuk, Dr. Mahammad Novrusov, Dr. Lesia Yekenina

COMPUTER PROGRAM MATHCAD AS AN OBJECTIVE WAY TO DETERMINECOLOR (FOR THE FORENSIC MEDICAL PRACTICE)

Vinnitsa National Medical Memorial University named by M.I Pirogov (Department of Pathological Anatomy, Forensic Science and Law) Vinnitsa. Ukraine

Relevance: determining the color of damage is subjective, which can lead to errors in the results. That is why this process requires objectification and standardization that can be achieved using computer technologies.

Objective: To determine the possibility of using MathCAD program for digital image processing and objective definition of the color.

Materials and Methods: photos of damaged skin were made by NikonAF-SNikkor 18-15 mm camera, using shadowless lighting Xenon lamp, from a distance of 40 cm, perpendicular to the skin surface. The color and size of lesions were determined according to the scale model of color metric scale. Photos of the injuries were processed in the graphic editor Photoshop. From each image in a graphics editor 4 images were cut: the actual damage, clear skin, one of the colors of the line and white.

Result: for the processing in MathCAD program we took four images: the actual damage, clear skin, which were processed separately, white and orange colors of the line, according to which the application is calibrated. Regardless of the source format of the file the image in MathCAD is a matrix, color values of which spreads from 0 (black) to 255 (white). Each element of the matrix is 1 pixel of the image. The program has three matrixes of colors: red, green, blue (system RGB). The combination of these three colors is able to reproduce any color. Each pixel on the reference image was calibrated according to the standard color (orange) with the balance of white and was compared with RGB colors. After that the corresponding numerical value that corresponds to a color line was attached to each pixel. These data is recorded in Microsoft Excel spreadsheet and were used for objective determination of the color of damage.

Conclusions: The use of a computer program MathCAD for processing digital images provides the objective determination of the color of injury for purposes of forensic practice.

Moskalenko V., Sirenko V.

MAGNESIUM LEVEL IN PANCREAS OF RATS AND THEIR OFFSPRINGS IN LESS NUTRIENTS DIET CONDITION.

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The relevance. Magnesium disbalance is an actual medical problem, that appears in a hypocaloric nutrition, and can cause exocrine and endocrine pancreas pathologies.

The aim of the study Is a research of rats' pancreas morphofunctional state and ascertainment magnesium level after a disbalanced diet.

The materials and methods. Pancreas morphofunctional state is researched on pregnant rats while they were on hypocaloric diet (1 group) and their 1-2 month descendants. Also pancreas morphofunctional state of species on balanced nutrition is ascertained (2 group). Pancreas magnesium activity is researched by spectrophotometrical method.

The results. The research results shows that 100% of rats in the first group has morphofunctional changes in pancreas: parenchymal atrophy and stromal hypertrophy, inflammational infiltration (40%), acinar area and pancreatic islets decrease and endocrinocytes number in a part of pancreatic islets decrease. No signs of haemocapillars or ductus malfunctions are found. Offspring's from the first group of rats has the same pancreas dysfunctions as their mothers do (except for 100% ductual pancreas fibrosis and lack of lipomatosis). Further pancreas dysfunction reduces, specifically inflammational infiltration disappears (after 1 month) and the frequency of 2-month rats' sclerosis appearance goes down. After 2 months lipomatosis (in 50% of cases) and ductus dysfunction (in 100% cases) is found. This leads to pancreas functional condition violation. Biochemical research results show that 100% of rats that belongs to the first group have undervalued magnesium level relative to second group's same index and it is 91,2%±3 ($p1<0,01$). Offspring from the first group have the same pancreas dysfunctions as their mothers do: 100% of 1-month rats this result is 86%±1 ($p<0,001$), 100% of 2-month species this result is 71%±1,4 ($p < 0,001$) of a control group's result.

The conclusion. Thus, rats on hypocalorical nutrition and their descendants have magnesium disbalance in front of morphofunctional changes of pancreas and pancreocytes.

Mukherjee Pratibha

INTERRELATION BETWEEN DOPAMINE CONTENTS IN CEREBELLUM AND EMOTIOGENIC LIMBICOCORTICAL SYSTEM REGIONS IN RATS WITH DIFFERENT BEHAVIOR TYPES

Research advisor: Popova L., MD, Doctor of Medical Sciences Professor
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Actuality. Dopaminergic projections to limbic & cortical structures regulate cognitive and emotional functions. Limbic projections influence cerebellum, & cerebellar activity modulates dopamine release in medial prefrontal cortex. Cerebellum role in aggressive and submissive state development was not studied.

Aim. Taking into account that frontal cortex and hippocampus are involved in control of anxiety and aggressive behaviour, the aim of the investigation is to study the interrelation between dopamine contents in cerebellum and frontal cortex and hippocampus in male rats with alternative behavior types.

Matherials and methods. Work was carried out on 24 male rats of the young reproductive period. Distribution of the animals into groups with alternative types of behavior was made using a model of emotional stress "Sensory contact" with some modifications. According to the results of testing, animals were divided into 3 groups: dominant, balanced and submissive. Content of dopamine in frontal cortex, hippocampus and cerebellum was determined by fluorometric micromethod. Statistical analysis of the results was carried out by methods of nonparametric statistics using the package "Statistica 6.0".

Results. The significant decrease of dopamine was found in all investigated structures in submissive males compared with both balanced and dominant rats. The difference in dopamine content between dominant and balanced animals was observed only in frontal cortex. Dopaminergic system forms hedonistic behavior components. Dopamine plays the key role in behavioral disinhibition and anxiolysis. The decrease of dopamine content in frontal cortex and hippocampus in submissive males promotes the formation of submissive behavior. The analysis of correlations between the content of dopamine in cerebellum and structures of emotiogenic neocortical system revealed the existence of close positive correlation between the content of dopamine in cerebellum and frontal cortex (submissive: + 0.881, $P<0.05$; dominant: + 0.779, $P<0.05$), in cerebellum and hippocampus

(submissive: + 0.887, P<0.05; dominant: + 0.683, P<0.05) both in dominant and submissive males. This tight positive correlation may be explained by receiving excitatory input and sending reciprocal projections to the medial prefrontal cortex by dopaminergic neurons in the ventral tegmental area, and by modulatory effects of cerebellum on dopamine release in medial prefrontal cortex.

Conclusions. The decrease of dopamine content promotes the formation of submissive behavior in submissive males by reducing the mediation of positive emotional reactions. The existence of close positive correlation between dopamine contents in cerebellum and structures of emotiogenic limbicocortical system is a evidence that cerebellum is involved in the formation of dominant/submissive behaviors. Dopaminergic system is one of the mediatory systems of this involving realization

Nabok T.A., Zelenska A.N.

ON THE QUESTION OF THE EFFECTIVENESS OF PSYCHOPHYSIOLOGICAL METHODS OF DIAGNOSTICS OF EDUCATIONAL MOTIVATION OF MEDICAL STUDENTS

Research Advisor: PhD, Associate Professor Marakushin D.I.
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Actuality. The content and structure of human motivation is a significant indicator of the state of health and level of adaptation. In terms of psychophysiology, learning motivation is the basic social needs of man. Study the content and structure of cognitive motivation of medical students is an actual problem of psychophysiological.

Aim: The aim of our study was to find motivation diagnostic techniques of cognitive activity, which would have a reliable degree of protection from the insincerity of the test and really reflect his attitude to reality.

Materials and methods. The study was conducted on medical students of the 2nd course, who gave free and informed consent to participate in the experiment. On the basis of information retrieval have been selected: the traditional psychodiagnostic methods (questionnaires and projective); technique of repertory grids of J. Kelly (adapted for the study of individual changes in teaching and learning motivation of students) and psychosemantic method of color

metaphors in modifications of I.L. Solomin. The method of color metaphors was adapted by I.L Solomin for the quantitative measurement, quality assessment and comparative analysis of the content and structure of a wide range of motives in people of different social groups.

Results and discussion. As a result of these motivation methods of diagnosis was obtained by the ability to analyze the motivational variety of students in terms of the relation with the needs of the hierarchical model of A. Maslow. The use of traditional questionnaires and projective psychodiagnostic methods for the analysis of motivational choice did not allow a sufficient degree of accuracy to identify the content and the structure of motivation. Studying the dynamics of teaching and learning motivation using a technique of repertory grids of J. Kelly showed the effectiveness of the method in the individual psychophysiological research. However, the method makes quite high demands on the level of education and intellectual development of the respondents. He also proved to be quite energy intensive to conduct a study. The technique of color metaphors of I.L. Solomin reliably meets the task of our research. Interpretation of the results it has identified the relevant advantages over other diagnostic methods of motivation of cognitive activity of students. Unlike traditional methods of psychological tests focused on the identification of the content and structure of conscious and unconscious, as well as equipment repertory grids of J. Kelly , but requires much less time and it has a power consumtion of research.

Conclusion. So, the technique of color metaphors of I.L. Solomin is the most effective method for diagnosing educational motivation, as it allows adequate for a short time to evaluate the structure of the cognitive motivation of medical students.

Nazarov Dmytro Ihorovich

ADVANCES OF NANOPARTICLE-BASED TARGETED DRUG DELIVERY FOR CANCER TREATMENT

Research advisor: Onashko Yuliya Nikolaevna, Assistant
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Actuality. Cancer is still the number second cause leading to death. The reasons of these situation are side-effects of treatment by chemo- and radiotherapy, which increases mortality and restricts the opportunity of further therapy. For example, a widely used anticancer drug, doxorubicin, can cause heart failure or dilated cardiomyopathy because of nonspecifically absorption of it by non-targeted tissues. That is why targeted drug delivery systems for cancer treatment are so actual nowadays.

Object. The goal of this research is to show a great potential of new medications either synthetic and from natural-source compounds against cancer.

Methods and Materials. Studying, analyze and generalization of data of National Centre of Biotechnology Information.

Results. The use of colloidal nanoparticle systems is the way, which may develop therapeutic effect of chemical agents and reduce its side effects. Because these drugs are encapsulated within nanoparticles of 50-800nm, they are not possible to cross the vessel wall of healthy regions of the organism (the space between these cells is only 15-30nm). This is different from what occurs in inflamed regions or even in those regions where tumors are located, in which endothelial cells are less packed among themselves than in healthy regions, which result in an accumulation of nanoparticles in the tumor tissue near blood vessel. This vectorization strategy is known as enhanced permeability and retention effect (EPR).

A number of pre-clinical tests and epidemiologic studies can be found, which show great potential of new medications for cancer. These drugs contain macromolecules peptides, proteins, plasmids, RNA-DNA hybrid aptamer. Liposomes were the first nanocarriers approved by regulatory agencies for carrier several chemotherapeutic agents. The first formulation of liposomes to be approved in the market was the Doxil in 1955 for treatment of Kaposi sarcoma associated with AIDS. From those time numerous tests were made in this field. For example, since May 2009 90 patients with breast cancer have been treated by Polymeric micelle containing paclitaxel in South Korea. In the USA 72 patients with liver cancer have been treated by Lipid nanoparticles

containing siRNA since December 2014. Moreover, in 2002 block copolymer vaccine containing peptides helped to treat 48 patients with melanoma in the US.

Conclusion. Numerous technologies are engaged in the development of nanocarrier. Oncologists in the near future should have specific combinations of nanocarriers and target molecules - similar to the strategies of chemotherapy combination that can be personalized to improve treatment against cancer - that will contribute to improve therapeutic results and reduce costs. "

Onikova A., Otchik A.

EXPERIMENTAL STUDY OF COPPER ION ROLE IN MECHANISMS OF NEPHROPATHY

Research Advisor: PhD, Associate Professor Gorbach T.
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Actuality. Despite the numerous studies that have found a role in lipid metabolism in the development and progression of certain types of kidney disease, the impact of environmental factors on lipids of cellular membranes of the kidneys not known until now.

The aim of our investigation was to study the features of lipid serum and membrane subcellular fractions of kidney cells, inflammatory interleukins in blood serum of rats with experimental nephropathy.

Material and methods. Experiments conducted on 30 rats - males 2 months of age. The animals daily for 1 month intragastric (through a tube) once injected 1 ml of an aqueous solution of CuCl2 concentration of 1.35 mg / dm3. The control group of animals of the same scheme received distilled water. After 1 month animals were taken out of the experiment. The kidneys were isolated, washed of blood, prepared 10% homogenates in 0,25M Tris-HCl buffer, pH 7.4. Using differential centrifugation membranes of subcellular fractions were distinguished..Renal cell membrane lipids extracted by Bligh and Dyer and fractionated by thin layer chromatography on plates Silufol.

Results. In experimental nephropathy, a decrease in the membranes of all factions (except the plasma membrane) cholesterol and increase of phospholipid content. Thus, in terms of nephropathy induced by hyperelementosis of copper the ratio of cholesterol / phospholipids in intracellular membrane structures is

reduced, and the plasma membranes - increases. The features ratio of cholesterol/ phospholipids indicate a change in the structure and properties of membranes, which are expressed in different directions change their rigidity and microviscosity even within a single cell, resulting to be violations of its functioning.

Conclusion: various disorders of lipid metabolism, induced by hypermicroelementosis of copper, play an important role in the mechanisms of nephropathy development.

Pavlichuk E. A., Panich R. V., Karnaukh E. V.

HOW BRANDS OF DRUGS DEFEND THEIR PRODUCTS AGAINST OF FALSIFICATION?

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Actuality. The number of counterfeit drugs is growing rapidly every year. Therefore, manufacturers are looking for ways to protect their product from possible fraud. Nootropic drugs whose popularity is growing rapidly among young people, are no exception.

Aim. To explore how manufacturers are protected from counterfeiting, and can buyers to identify counterfeit medication.

Matherials and methods. We developed questionnaires, with the help of these questionnaires we interviewed 50 respondents aged 18 to 25 years. The forms included 12 questions.

Results. 40% of respondents are taking nootropics, mainly Nootropil, Glycine. 100% of respondents are aware of the threat of fakes, but only 30% know how to distinguish a fake. 54% of respondents encountered counterfeits. For 72% high price guarantee quality of adrug, while 92% are looking for an alternative to expensive drug (knowing that the analog may be fake). All the basic information about the drug and how it is protected from tampering, the majority of respondents receives from the Internet. The drugs in network marketing buys just 10%, 14% buy drugs with discount. Relative to glycine and nootropil, manufacturers protect them as follows. On the packages indicate the number of patents, and in the instructions indicate the regimen drug.

Conclusions. We can conclude that modern society knows about the threat of fakes, and many buyers of drugs one way or another are faced with counterfeit drugs. However, there is a tendency of having very low skills to identify the fake drug. We also found mistrust of

respondents to doctors and pharmacists, and a high degree of confidence in the Internet.

Poliakova Veronika Viacheslavovna, Kravchenko Maksim Iurevich

THE INFLUENCE OF ELECTROMAGNETIC RADIATION ON THE LEVEL OF RATS STEROID HORMONES

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Introduction. The low-intensity electromagnetic radiation (EMR) is one of the factors of the environment, that has an adverse impact on the human body, primarily on neuroendocrinal system. At the same time it is known that the fetal organism is extremely sensitive to changes in the maternal endocrine state and to the changes in the environment.

Aim. The wide use of electromagnetic radiators stipulates impossibility of exception of actions of the EMR during pregnancy. In this connection there is a necessity of studying of the impact of the low-intensity EMR of cantimetric range (1-10 cm) on the pregnant individual and on the endocrine state of a fetus.

Materials and methods. The experiment was conducted on Wistar rats. Animals were divided into two groups. The first group of animals was exposed to low-intensity EMR of centimetric range for 4 hours every day during the entire period of pregnancy. The second group (control) were placed under similar conditions to the chamber, but were not exposed to radiation. Posterity of the main and control groups was derived from the experiment at the age of three months. For biochemical study blood serum was taken, after that concentration of corticosterone, estradiol and testosterone was determined by immune-enzyme method.

Results. The influence of the low-intensity electromagnetic radiation on female rats during of a pregnancy is reflected on the level of posterity's corticosterone. The females of the main group have the concentration 862,0 nmol/l, control group has 658,9 nmol/l. The males of the main group have the concentration 1522,5 nmol/l, control group has 617,9 nmol/l. In this way significantly the level of corticosterone is elevated in males. The examination of sex hormones level in blood serum of experimental animals is detected the reduction of estradiol level in males (control – 1,19 nmol/l, experiment – 0,21 nmol/l) and females (control – 1,89

nmol/l, experiment –1,51 nmol/l). The level of testosterone is lowered in females (control –1,89 nmol/l, experiment – 0,98 nmol/l), in males is increased (control – 5,47 nmol/l, experiment – 6,32 nmol/l), Such deviations of sex hormones concentration are insignificant and characterize the distribution under reaction rates of population's endocrine state.

Conclusions.

1. Animals that prenatally have suffered the impact of electromagnetic radiation have the increased level of corticosterone, especially in males.
2. These features may indicate the activation of the stress-organized structures affecting function systems hypophysis-adrenal glands, hypophysis-gonads.

Polikov G., Karnaukh E.

INNOVATIVE BIO-TECHNOLOGICAL DEVELOPMENTS OF UKRAINIAN SCIENTISTS IN THE AREA OF PROBIOTICS

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Actuality. Malnutritional diet, the use of antibiotics, stresses – all is detrimental to our health. Nowadays, therapeutic and prophylactic use of probiotics is common in the world. Probiotics – are medicinal preparations based on representatives of normal human intestinal microflora.

Aim. To analyze the feasibility and benefits of the use of modern recombinant probiotic Subalin for pharmacological treatment of intestinal dysbiosis.

Matherials and methods. Current literature concerning the analysis of the data representing an innovative generation of probiotics V Subalin obtained via genetical engineering by Ukrainian scientists.

Results. The recombinant probiotic generation V - Subalin, is comprised of live bacteria, obtained through the means of genetic engineering by a group of Ukrainian scientists on the basis of the strain Bifidobacterium subtilis. Bifidobacterium subtilis are widespread in nature and, in food (bread and milk), water, air. It inhibits the growth of pathogenic and conditionally pathogenic flora, creates favorable conditions for the normalization of the qualitative and quantitative composition of intestinal microflora (bifidobacteria, lactobacilli, escherichia coli). Bifidobacterium subtilis exists in the spore state, so it allows you to use the drug in conjunction with antibacterial drugs. Resistant to aggressive gastrointestinal tract. It promotes the development of alpha interferon - antiviral and

immunomodulatory effects. Subalin helps normalize microflora, prevents and cures dysbiosis in patients receiving antibacterial agents, reduces the level of endogenous intoxication, improves the body's resistance to viral infections. Shows polytropic therapeutic effects (immunomodulating, antibacterial, antiviral, antitumor). Use in treatment: viral hepatitis A, B, C, bacterial and viral - bacterial meningoencephalitis, intestinal dysbiosis.

Conclusions. Subalin – is the medication without counterparts,which is composed of Bifidobacterium subtilis, and has been in coexistence with a man for millions of years. 2. Polytropic therapeutic effect increases the effectiveness of treatment and helps to avoid polypharmacy in pharmacotherapy dysbiosis.

Prisich K.S., Shulga L.I., Beztsenna T.S.

STUDY OF THE INFLUENCE OF PHARMACEUTICAL FACTORS IN THE DEVELOPMENT OF DENTAL FUNDS – LIQUID EXTRACT OF BURNET

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Actuality. For the treatment of inflammatory diseases of the oral cavity, justified is the use of herbal remedies, among which the share of liquid extracts is negligible. In the aspect of the specified relevant are studies on the creation of a new product for dentistry, namely, liquid extract of Burnet.

Objective*:* to determine the microbiological screening of the influence of auxiliary substances (extractant), pharmaceutical as an important factor in creating dental tools – liquid extract of Burnet.

Materials and methods study. Objects of research: Burnet rhizomes and roots, model samples of liquid extracts, which are made on 30% - 70% ethanol and the appropriate concentration of solvent.

Microbiological study was carried out microbiological method of diffusion in agar on the basis of the laboratory of biochemistry and biotechnology SI "Mechnikov Institute of Microbiology and immunology of National Academy of Medical Sciences of Ukraine".

The cultures of microorganisms from American typical collection were used as test-strains of cultures: *S. aureus ATCC 25923, E. coli ATCC 25922, P. aeruginosa ATCC 27853, B. subtilis ATCC 6633, P. vulgaris ATCC 4636, C. albicans ATCC 885-653*.

The results and discussion. After analyzing the results of microbiological screening, it was set, that the level of antimicrobial activity depends on the concentration auxiliary substances – ethanol.

The lowest zones of growth retardation of all investigated test-cultures of microorganisms were observed for the samples of liquid extract of Burnet, made 30% ethanol.

The highest values of diameters of zones of growth delay of the test strain of *S. aureus* was observed for samples of extracts of Burnet 40-60% ethanol test strain *P. vulgaris* 40% and 50% ethanol, and the test strains *B. subtilis* 50% and 60% ethanol. Comparing the values of the diameters of zones of growth delay of the test strains samples of fluid extract of Burnet 60% and 70% ethanol indicated that their antimicrobial activity hardly differed.

In the future we plan to conduct several studies to determine the content of biologically active substances of learning samples of liquid extracts 40%, 50%, 60% ethanol for the final selection of the extractant of plant-based preparation.

Pushkar L., Bondarenko V.

THE NEW METHOD OF FORENSIC MEDICAL DIAGNOSTIC OF ACUTE ALCOHOL POISONING

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Acute alcoholic poisonings (AAP) have the 1st place in the list of fatal poisonings in Ukraine. The diagnostic of this kind of death is difficult because forensic medical expert must reveal and analyse more than 30 diagnostic and non-specific signs which also are found in other types of death. Now the forensic medical diagnostic of AAP base on the subjective rating of this signs without any objective criteria and so, the forensic medical experts commit the errors sometimes.

The purpose of this work consist in improvement of diagnostic of AAP by means of determination of diagnostic value of the sings of AAP and estimation of their total combination. In during of this work we had autopsy of 44 corpse of men and woman which died after AAP (research group) and 61 corps of men and woman (control group) which died after cardiovascular diseases and mechanical injuries without any alcoholic intoxication on the moment of death.

So, we studied 32 macromorphological signs of AAP which recommended in use by the rules and put their presence or

absence in special registration cards in during of every autopsy. Finally we got the frequency of meeting of every sign in research and control group and by the criterion of Student, Kullback's and Gubler-Genkin's methodology we calculated the diagnostic criterion of every sign of death.

In result of researching we got 17 macromorphological signs of AAP which have trustworthiness in diagnostic between research and control groups and we calculated the diagnostic coefficient (DC) of every sign and made the special table of recommended diagnostic signs. So, the DC of presence of viscous pale grey mucus is +3.8 and their absence – minus 3.8; the DC of evident injection of conjunctiva vessels is +5.5 and their absence - minus 2.5; the DC of hyperemia and (or) haemorrhages of mucous membrane of proximal sections of small intestine is +4.2 and -3.4 (absence); the DC of hyperemia of vessels of mucous membrane in larynx and trachea +3.4 and -3.4;the DC of bladder distension, bladder overflow with urine +4.1 and -2.4; the DC of skin cyanosis and face puffiness +3.6 and -2.4; the DC of palpebral oedema +3.1 and -2.8 DC etc. When we got every DC we must calculate their combination (sum of DC). If this DC sum put together 30 points or more the conclusion of cause of death (AAP) would be with a probability up to 95 %. If this DC sum less than 30 points we must continue own investigation and make the additional laboratory investigations (histological, toxicological, biochemical etc.).

Thus, we found out special diagnostics algorithm of the cause of death from AAP which based on frequency of meeting of diagnostic signs and which is ready to use in practice yet. This new method of diagnostic of AAP increase the diagnostic value of expert conclusions and decrease the possibility of errors in forensic medical expertise of AAP.

Sader Abbas, Adeem F.Y., Vasylieva O.

THE EFFECT OF CHRONIC ELECTRICAL STIMULATION ON THE MUSCLES PHYSIOLOGICAL PROPERTIES IN PATIENTS WITH MYOTONIC DYSTROPHY TYPE 1

Research Advisor: PhD Marakushin D.
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Actuality. To date, in Myotonic Dystrophy type 1 (DM1) the rehabilitative interventions have always been aimed at muscle strengthening, increasing of fatigue resistance and improving of aerobic metabolism efficiency whereas the electrical membrane fault has always been addressed pharmacologically. Neuromuscular electrical stimulation (NMES) is a useful therapeutic tool in sport medicine and in the rehabilitation of many clinical conditions characterized by motor impairment such as stroke, cerebral palsy and spinal cord injury.

The aim of our pilot study was to evaluate the effects of chronic electrical stimulation both on functional and electrical properties of muscle in a small group of DM1 patients.

Materials and methods: five DM1 patients and one patient with Congenital Myotonia (CM) performed a home electrical stimulation of the tibialis anterior muscle lasting 15 days with a frequency of two daily sessions of 60 minutes each. Muscle strength was assessed according to the MRC scale (Medical Research Council) and functional tests (10 Meter Walking Test, 6 Minutes Walking Test – MWT and Timed Up and Go Test – TUG test) were performed. We analyzed the average rectified value of sEMG signal amplitude (ARV) to characterize the sarcolemmal excitability.

Results. After the treatment an increase of muscle strength in those DM1 patients with a mild strength deficit was observed. In all subjects an improvement of 10 MWT was recorded. Five patients improved their performance in the 6 MWT. In TUG test 4 out of 6 patients showed a slight reduction in execution time. All patients reported a subjective improvement when walking. A complete recovery of the normal increasing ARV curve was observed in 4 out of 5 DM1 patients; the CM patient didn't show modification of the ARV pattern.

Conclusions: NMES determined a clear-cut improvement of both the muscular weakness and the sarcolemmal excitability alteration in our small group of DM1 patients. Therefore this rehabilitative approach, if confirmed by further extensive studies, could be

considered early in the management of muscular impairment in these patients. An attractive hypothesis to explain our encouraging result could be represented by a functional inhibition of small conductance calcium-activated potassium channels expressed 3 (SK3) in muscle of DM1 subjects.

Savelieva E.V., Levasova O.L., Masih T.

EFFECTS OF CAFFEINE, ACETAMINOPHEN, CARBAMAZEPINE AND THEIR COMPOSITIONS ON LIPID PEROXIDATION AND STATE OF THE ANTIOXIDANT SYSTEM IN A BLOOD SERUM OF RATS

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Actuality. One of the ways to improve traditional medicines is to create co-formulated drugs. The drug combination in multicomponent composition mutually enhances their pharmacological effects; effectively eliminates pain, inflammation, than each individual component.

The aim. Determination of lipid peroxidation (LPO) and state of the antioxidant system (AOS) in a blood serum of rats in multicomponent composition compare to mono-preparation in rats under the condition of formalin induced edema.

Materials and Methods. An experimental study was performed on 54 rats of WAG line with the average weight 210 - 230 g. The animals were divided into 9 groups of 6 animals in each group. 3% starch mucus was injected orally via gastric tube to intact animals of 1st group (2 ml/200 g of rat weight). The animals in 2nd group were administered 3% starch mucus and formalin edema was caused by subplantar introduction of 2% formalin solution in the hind paw of rat. Animals of 9 groups were administered the investigated drugs once orally via gastric tube. Animals of the 3rd group received paracetamol (6 mg/1 kg of body weight); 4th –caffeine (0.6 mg/1 kg), 5th group – carbamazepine (5 mg/1 kg); 6th group – a combination of carbamazepine (5 mg/1 kg) and caffeine (0.6 mg/1 kg); 7th group – a combination of carbamazepine (5 mg/1 kg) and paracetamol (6 mg/1 kg); 8th group – a combination of paracetamol (6 mg/1 kg) with caffeine (0.6 mg/1 kg); 9th group – a combination of carbamazepine (5 mg/1 kg) with caffeine (0.6 mg/1 kg) and acetaminophen (6 mg/1 kg).

Intact animals and animals of 2-9th groups were decapitated under

ether anesthesia after 4 hours after modeling formalin induced edema – at a time of the maximal edema in 2-9th groups animals. The serum was used for investigation of LPO. The level of primary oxidation products – diene conjugates (DC) and secondary products – malondialdehyde (MDA) was determined using a spectrophotometric method. Also this method was used for the determination of AOS: the activity of catalase (CAT) and superoxide dismutase (SOD).

Results. All investigated drugs reduce the level of DC and TBARS statistically significant with regard to formalin induced edema and results are relatively close to the control group. The three-component composition (paracetamol + caffeine + carbamazepine) has the best influence on the level of DC in investigated drugs. The level of TBARS is affected by all investigated composition. All investigated drugs and their composition affect the state of CAT, SOD in rat serum and reduce it compare to formalin induced edema and even intact animals. Tri-component composition of paracetamol + caffeine + carbamazepine brings studied parameters close to values of control group.

Conclusions. Consider the results of the CAT and SOD study under the condition of formalin induced edema we can conclude that these values correlate better than adjusted figures of LPO (DC and TBARS), it indicates that the composition of caffeine have a strong antioxidant effect. The experiment results confirm that tri-component composition paracetamol + caffeine + carbamazepine is an effective at the state of LPO and AOS under the condition of formalin induced edema and can be recommended for further study.

T.M. Sazonova, J.G. Zhadan

DETERMINATION OF CATALASE ACTIVITY AFTER MODELING CRYONECROSIS OF THE MYOCARDIUM IN RATS

Scientific advisors: S.I. Panov, Associate Professor of the Department of Human Anatomy
S.A. Sherstuk, MD, Professor, Head of the Department of Human Anatomy
V. N. Karazin Kharkiv National University, Medical faculty, Department of Human Anatomy

Relevance. 50 thousand of new cases of myocardial infarction are recorded each year in our country. Myocardial infarction (MI) - is one of the forms of necrosis of the myocardium caused by violation of the blood flow through the affected arteries.

High mortality and lack of accurate repeatability of heart damage, using existing models of MI, encourages researchers to look for new options of modeling MI, which will help to standardize the affected area.

Formation of myocardial damage is accompanied by intense formation of active forms of oxygen in the heart. Catalase plays an important role in limiting their effect on cardiomyocytes. Catalase – is an enzyme of oxidoreductases class, which takes part in the antioxidant system of cells and serves as antiperoxide protection.

Characteristics of the functioning of this enzyme, namely its activity, after cryonecrosis of the myocardium have not been established conclusively.

Aim. To model myocardial infarction in rats by local dosed cryotherapy on the heart muscle, to determine the activity of catalase after modeling cryonecrosis.

Materials and methods. Experiments were carried out in 10 mongrel male rats. MI model was created surgically on animals under the ether mask narcosis. Before opening the chest cavity, a four-point four ligatures were tied around 5th and 6th ribs, that maximally helped to exclude the development of pneumothorax. Cryogenic heart treatment was produced by cryoinstrument with surface temperature of the applicator -196 ° C. Chest cavity was tightly sutured after cryoablation of the heart.

Catalase activity was determined by a method based on the ability of hydrogen peroxide (H_2O_2) to form a stable colored complex with molybdenum salts. 2 ml of 0,03% H_2O_2 solution was added to 0,02 ml of the serum or tissue homogenate. 1 ml of a 4% solution of ammonium molybdate was added in 10 minutes. The optical density of samples was determined by spectrophotometer SF-46 at a wavelength of 410 nm.

Results. Determination of catalase activity in the blood serum of rats on the 7^{th}, 14^{th}, 28^{th} days after the cryogenic treatment showed a decrease of this parameter on 8.3%, 12.88% and 13.43% respectively, at $p \leq 0,01$, relative to the norm.

Conclusion. The decrease of catalase activity in blood serum of rats on the 7^{th}, 14^{th} and 28^{th} days after modeling cryonecrosis of the myocardium showed intense processes of lipid peroxidation. These findings can be used to develop new methods of treatment of necrotic changes in the myocardium.

Sharapova A.E.

FUNCTIONAL FEATURES OF THE AMYGDALA

Research Advisor: Assistant Bausova O.B.
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Actuality. One of the current issues of physiology of the human central nervous system is not fully studied functional features of some structures, particularly of the limbic system. A lot of functions of this system are performed due to such subcortical structures as the amygdalae. As it has been proved that the loss of activity and communications of the amygdalae neurons leads to appearance of a number of pathologies, thus, the goal of the research consists in obtaining of accurate and extensive knowledge concerning amygdala functions, what is necessary for the further use of it in clinical practice.

Materials and Methods: Clinical research, observations and statistical regularities, based on them, have served as the basis for the study of functional features of the amygdalae.

Results. In particular, the effects of stimulation amygdala were defined. Mostly they are caused by its wide connections. Generally, stimulation of the amygdala can cause almost all the effects appearing in stimulation of the hypothalamus. What is more, the corticomedial complex of the amygdala has greater effect on the sympathetic hypothalamus area, while the basolateral complex – on the parasympathetic one. The amygdala, especially its basolateral part, is characterized by presence of a great number of glucocorticoid receptors and therefore is sensitive to stress. It is assumed that such conditions as restlessness, autism, depression, posttraumatic shock and phobias are associated with abnormal function of the amygdala. Besides, weak stimulation of basolateral part of the amygdala leads to improving of quality of short-term memory processes, especially when initial level of memorizing is low.

Corticomedial region of the amygdala, as the part of the lateral olfactory area, is functionally associated with perception of smells and regulation of sexual behavior. Additionally, it is responsible for creating reactions of avoiding of aversive stimuli. Excitation of this region can cause sexual activity.

Conclusions: The amygdala plays an important role in formation of subjective feeling of fear and autonomic response of organism to it due to expression of the stathmin protein in the neurons of lateral amygdala nuclei. Inability to feel fear is one of the symptoms of amygdalae

lesion, for example, of Urbach-Wiethe syndrome. The size and number of connections of the amygdala can be potential biomarkers for detection of groups of people who are predisposed to anxiety disorders. Besides, changes in volume, number of connections and electrical activity of the amygdalae are signs of such pathologies as drug addiction, schizophrenia, Alzheimer's disease and epilepsy.Thus, it's worth mentioning that the functions of the amygdala are important and various and its functional disorders are involved into the pathogenesis of many diseases, that is necessary to be considered in the diagnosis.

Sharapova A.E., Bausova O.B.

INTERSYSTEM RELATIONS OF CARDIORESPIRATORY SYSTEM IN MEDICAL STUDENTS DURING THE STUDYING IN UNIVERSITY

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Materials and Methods. The functional parameters of the cardiovascular and respiratory systems and their relations in condition of the dynamical psycho-emotional stress in medical students after a year of studying in university (experimental group) were investigated.

Results. The body condition was evaluated during relative rest and immediately after physical activity, which was to perform the work on the cycle ergometer with constant power in 200W and a frequency of rotation in 60 Hz "to failure". Intersystem relations of the cardiovascular and respiratory systems were evalua1ted on the basis of the calculation of conjugation index (Hildebrand test, normal value 2.8-4.9) as the ratio of the heart rate and respiratory rate, which characterizes the strength of the intersystem integration.

It was revealed that the presented physical activity caused different types of reactions of the cardiovascular system in students of the control and experimental groups. The first type of reaction is manifested by increasing of systolic blood pressure (SBP) on 20 mm Hg relative to the initial level, which was conditionally designated as "normally reactive". The second type of reaction is characterized by SBP changes of more than 20 mm Hg, which was designated as "over-reactive". The third type of reaction

is characterized by the absence of changes in SBP or even by decreasing of it, and therefore was defined as "weakly reactive".

Conjugation index in "over-reactive" and "normally reactive" types during the rest and during exercise is similar and equal to 4.37 and 4.67, respectively. Apparently, the increased activity of the cardiovascular system in these students is accompanied by adequate activation of the respiratory system. The "weakly reactive" type has the lowest conjugation index, which is equal to 3.48.

Conclusions. By the end of the first year of studying in university conjugation index of all three groups tends to decrease, both at rest and during exercise. These changes are mostly expressed in "weakly reactive" group. It is a sign of the decreasing of level of intersystem integration of the cardiovascular and respiratory systems, which leads to deterioration of the adaptive capacity of the organism in the test conditions.

Shcholok T., Kukushkina M.

THE POSSIBILITY OF CORRECTING OF ELASTIN SYNTHESIS IN BLOOD VESSELS

Research Advisor: PhD, Associate Professor Gorbach T.
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Actuality: There is lack of information about the impact of parental smoking on fetal vessels in literature. At the same time, the fact of placental permeability for most toxic components of tobacco smoke and their accumulation in the amniotic fluid is observed. In this regard, studying the effect of smoking of parents on fetal vessels is extremely important.

The aim of our study was to investigate the influence of "smoking" rats-parents on the content of collagen and elastin in blood vessels of descendants, and to explore the possibility of correcting the elasticity of blood vessels under the influence of dosed physical activity.

Materials and methods. Experiments were conducted on 3-month-old rats of Wistar lines. Rats were divided into 4 groups: 1) control (C), 2) "smoked" only females (F), 3) "smoked" females and males (FM) 4) "smoked" only males (M).

Modeling of passive smoking was carried out by placing rats in a

specially designed chamber, which was distributed with tobacco smoke from cigarettes "Pryluky". 1-month-old rats-hairs were placed in "squirrel wheel" and ran it for 30 minutes every day. At the age of 2 months all rats were removed from the experiment. The amount of elastin in vascular homogenates was measured using immunoassay with reagents of Bender - med System firm (Austria), collagen – with spectrophotometric method (for oxyproline).

The results of the research. Reduction of elastin was discovered both in the aorta and femoral arteries in neonates and 2-month-old offspring of parents-"smokers", what can cause increased rigidity of blood vessels, especially if both parents smoke. Under the influence of physical activity the content of elastin significantly increased both in the aorta and in the femoral artery, what leads to a decreasing (approaching the level of control) of ratio of collagen/elastin in vessels.

Conclusions. Physical activity can be recommended as a factor of the correction of functional state of blood vessels in children, offspring of parents who smoke.

Shenger S.V., Bulynina O.D.

FEATURES OF MANIFESTATION OF COMMUNICATIVE ABILITIES AMONG YOUNG PERSONS WITH DIFFERENT TYPES OF FUNCTIONAL ASSYMETRY

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Actuality: Under the influence of scientific revolution and changes, which are connected to the country`s movement to the market economy, professional activity of people was significantly complicated in all the fields, direct losses from the lack of organization or through unused abilities increased. So, organizational activity of the leader acquires big sense, especially in profession of the doctor. We should organize the medical work so that specialized and hightechnological doctoral help would be available to each patient. Organizational abilities include: ability of planning own`s activities, capacity for work and flexibleness, fast reaction on changing of plans. We should note that there isn`t any conception in understanding doctor`s abilities and research work is taken only in separate questions of this problem.

The Aim: reveal possible dependence between type of functional asymmetry and

organizational abilities of KNMU`s students.

Materials and methods: the 54 students of KNMU 2 course have been examined. Control group includes 21 persons with a right type of functional asymmetry (RTFA). Comparison group consists of individuals with a left type of functional asymmetry (LTFA) – 12 persons, a person with mixed type of functional asymmetry (MTFA) – 8 people and those with socio-modified type of asymmetry (SMTA) – 13 persons. Organizational abilities were valued by the test (Sinyavsky V.V., Fedoryshyn V.A.)

Results: We determine that persons with RTFA, MTFA and SMTA have III – moderate level of organizational abilities (0.66 – 0.70): they aspire to have new contacts with people, don`t limit the circle of acquaintances, defend their positions, plan work in advance, but the potential of their abilities don`t distinguish high stability, so organizational abilities should develop and improve. We should note that persons with LTFA have IV – high level of organizational abilities (0.71 – 0.80): distinguish + 33.3%.We determine that I – low level of organizational abilities (0.20 – 0.55) have LTFA. 28.6% RTFA; 25% LTFA; 37.5% MTFA and 23.1% SMTA. We should note that V – very high level of organizational abilities (0.81 – 1) have: 9.5% RTFA; 50% LTFA and 38.5% SMTA. There isn`t anyone with very high level of organizational abilities among persons with MTFA.So, many persons with MTFA have low level of organizational abilities (37.5%) and a lot of persons with LTFA have very high level of organizational abilities (50%).

Conclusion: 1. Persons with LTFA have IV– high level of organizational abilities (0.8). Persons with RTFA, MTFA and SMTA have III – moderate level of organizational abilities (0.6).

2. Many persons with MTFA have low level of organizational abilities (37.5%) and many persons with LTFA have very high level of organizational abilities (50%)

Shubina M.V.

APPLICATION OF A CANCER DRUG FOR NEW INDICATIONS - TREATMENT OF NEURODEGENERATIVE DISEASES OF THE CNS

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Actuality. Nilotinib is a proven and approved drug that is prescribed to people with signs of leukemia. Nilotinib is issued by brand: NOVARTIS PHARMA AG (Switzerland) named Tasigna.

Aim. Nilotinib may be a very powerful means for the control of motor symptoms among people with Parkinson's disease by improving their function and controlling non-motor symptoms of the disease.

Matherials and methods. I studied scientific works Fernando Pagan - author of the study and director of the Program movement disorders Georgetown University Medical Center, USA. The study found that levels of toxic proteins in blood and spinal fluid decreased once patients began taking nilotinib. Also, tests showed that the symptoms of Parkinson's including tremor and "freezing" decreased. And during the study patients were able to use lower doses of Parkinson's drugs, suggesting that the brain cells that produce dopamine were working better.

Results. New study by Georgetown University Medical Center, USA, demonstrated it (Fernando Pagan is author of the study and director of the Programme of movement disorders). 6-month treatment with increasing doses of nilotinib (from 150 to 300 mg per day) may be the first effective method for reducing degradation of cognitive and motor functions of patients with neurodegenerative diseases such as Parkinson's disease. Improvements have been colossal: the ability to move restores, with the help of a walker, take care of themselves, speech recovers in a previously non-verbal patients. In 90% of patients had significant improvement of clinical parameters, and concentrations of biomarkers in the cerebrospinal fluid of Parkinson's disease (alpha-synuclein, beta amyloid-40/42, and dopamine), general rates of Tau protein and p-Tau (as a manifestation of dementia markers). The tested doses of nilotinib were significantly lower than the doses used in treatment of cancer (up to 800 mg per day). The drug is proved effective, the research carried for a group of people without the involvement of control groups.

Conclusions. If effectiveness of the drug wiil confirmed in larger, placebo-controlled studies, nilotinib could become the first treatment that interrupt a process which kills brain

cells in Parkinson's disease and other neurodegenerative diseases, including Alzheimer's disease.

Stupnytskyi Myroslav Andrew

POSTTRAUMATIC COAGULOPATHY IN PATIENTS WITH THE SEVERE COMBINED THORACIC TRAUMA.

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Introduction. Thoracic trauma is one of the leading causes of morbidity and mortality in developing countries. Coagulation is an integral part of inflammation and widespread activation of coagulation results in the systemic inflammatory response syndrome and increased susceptibility to sepsis.

Aim. The aim of this study was to determine the diagnostic value of the coagulopathy markers for metabolic monitoring of the severe combined thoracic trauma and it's possibly of outcome prediction.

Materials and methods. 73 male patients aged from 20 to 68 with the severe blunt combined thoracic trauma with pneumothoraxes, hemothoraxes, lung contusions, heart contusions and multiply rib fractures were included in this study. Patients' examinations were performed on 1-2-d, 3-4-th and 5-6-th day after trauma. The prothrombin time, fibrinogen concentration and β-Naphthol test were used for coagulation monitoring.

Results. Reliable decrease of fibrinogen concentration in comparison with control group was found on the 1-2-d day after trauma in both survivors and nonsurvivors. Further analysis showed that on the 3-4-th day of posttraumatic period the level of fibrinogen concentration continue decrease in comparison to control group. The more expressed level of decrease on the 5-6-th day was for survivors.

The level of the prothrombin time increase was on 10.41% for the 1-2-d day, on 7.89% for the 3-4-th day and on 10.15% for the 5-6-th day after trauma for patients from survivor group. It's dynamic in patients from nonsurvivors group characterized by gradual increase from the 1-2-d day.

There were significant correlations between prothrombin time estimated on 1-2-d day after trauma and objective scales that characterise patient's status on

admission RTS scale and TRISS probability. Less significant correlations were between fibrinogen concentration on 1-2-d day and these trauma objective scales.

There were significant differences in β-Naphthol test on 1-2-d and 5-6-th days after trauma between two groups of patient, more expressed on 5-6-th day. Appearance of positive and strongly positive β-Naphthol test on 5-6-th day after trauma increases probable mortality from 18.47 – 19.37% to 26.91 – 28.08%.

Conclusions. Hypocoagulation occurs early from the 1-2-d day of trauma in equal extent for both groups of patients with the severe combined thoracic trauma. Coagulation abnormalities are the result of vital functions disturbances (the level of traumatic shock) rather than direct mechanical tissue injury. Disseminated intravascular coagulation with a fibrinolytic phenotype at an early phase of trauma is the predominant and initiative pathogenesis of trauma-related coagulopathy with maximal expression on 5-6-th day of posttraumatic period.

Sukhonosov R., Vovk O., Ikramov V., Shmargalev A., Shafranetskaya V.

THE CRANIOMETRY OF THE SKULL VAULT AT ADULT PEOPLE

Research advisor: Tereshenko A., Professor
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Actuality. The vault of skull (fornix) is the roof of the head and brain, brain forming protection and vital structures located there in. A number of authors studied the characteristics of the structure of the skull, its bone formation, considered in the age and the individual aspects, will highlight a science – craniology. We should not forget that the cranial vault is the main field for surgical approaches to different parts of the brain, in which are carried out and a burr hole formed the necessary different shapes and sizes.

The aim of research is determine a range of main linear parameters of vault of skull at adult people, from the standpoint of the doctrine of individual anatomical variability. The study carried out on 40 specimens of skulls of adults using conventional techniques of craniometric researches.

Matherials and methods. The vault of skull has a pronounced longitudinal range of parameters in adults. So, the main length of the cranial vault corresponds to the length of the skull and the distance

between two craniometric points: gl (glabella) and op (opistocranion). This parameter ranges from adult males from 17.0 to 19.5 cm, making the amplitude variation of 2.5 cm; in female – from 16.2 to 17.5 cm with amplitude of 1.3 cm lengths.

Results. It was found that in the brachimorph shape of the skull length cranial vault varies from 17.0 to 17.9 cm (l =17.37 cm, σ = 0.545, m = 0.198) in men and l = 16.56 cm, σ = 0.5620, m = 0.185 – for women, while there is a variation of the amplitude of 0.7-0.9 cm when mesomorph form range of the parameter of the cranial vault does not exceed 17,8-18,3 cm (l =17.98 cm, σ = 0.385, m = 0.115) in men and 16.7-17.2 cm (l = 16.95 cm, σ = 0.411, m = 0.121) in female and forms amplitude variation within a 0.5 cm in both genders. Accordingly, in the dolichomorph form set range of variability of the length of the vault in male from 18.0 to 19.5 cm (l= 18.87 cm, σ = 0.628, m = 0.170) and in female: the range from 17.0-17.5 (l= 17.22 cm, σ = 0.630, m = 0.168), variants having the amplitude of 1.5 and 0.5 cm, respectively. This indicates a genetically reasonable relationship gradually increasing the longitudinal setting of the cranial vault from brachimorph to meso- and dolichomorph.

Conclusions. The study established a range of basic morphometric parameters of the cranial vault with a predominance of all parameters in males. It defines the expression the dependence of the longitudinal parameters of the cranial vault on the type of structure of the head, with their progressive increase from brachimorph to dolichomorph. The statistical analysis revealed laws, confirming their importance.

Tarasenko D.

THE INFLUENCE OF BLOOD GROUP ON THE FORMATION OF HUMAN CHARACTER

Research advisor: Vashchuk N., Associate Professor, Candidate of Medical Sciences
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Actuality. Blood is a liquid loose connective tissue, with different for all organisms. It performs two vital functions: saturates the body with nutrients and does not allow non-resident agents adversely affect us. We touched on this problem, in our opinion related with blood, as the formation of character for a single

person or group of people. After all, the nature of this phenotype painting temperament, inherited with the blood of our parents. We are interested in the theory of Polish scientist Ludwig Hirstsfeld, which states that ancient people are belonged for only one group of blood, in AB(0) group system – the first group. The cause of the mutation were turning points of human history. So, almost ancient people were obtaining food by hunting other animals, and the name of their group of blood is “Hunters”. Due to life on one place and consumption of mainly vegetable food their blood again mutated, we know it as the second group - "Farmers". People noticed that in different places they could take more harvest, as well as animals run away from human habitat and began move from place to place in order to find a better place, so, we got another specific composition of blood - the third group – “Nomads”. As time passed, humanity took a new territory, races were mixed blood with each other, and new kind of blood appeared – the firth, at the moment the youngest group.

Japanese researchers have supported the Herstsfeld’s theory and suggested that each group of blood will specifically affect temperament of the person.

Materials and methods of research. We decided to conduct the research on our colleagues in the university and familiar people, whose qualities are well known. The group of respondents was 115 persons, among them to the I(0) group belonged47 people, to II(A) - 37, III(B) - 24, and IV(AB) - 7.

The results of the research. Those with I(0) blood group was characterized by such features: high sociable, conscientious, optimism, vain, sometimes egocentric, ambitious, rude andjealous. For group II(A) blood were markedly different, this group had such qualities: balanced, commitment, respectable, responsible, dispirited, excessive seriousness, obstinate and skeptical. III(B) group had the following results: charismatic, talented, spirited, irresponsible, selfish, immature and unpredictable. IV(AB) had such indicators: cool, expedience, talkative, chaste, excessive strictness towards others, lack of initiative, indecisive and inattentive. Our observation is almost coincided with the research of Japanese scientists and may form the basis for the proper formation of character and raise a man's strengths and weaknesses compensation. In this way we will be able to rationally distribute the load as the children during their maturation, to facilitate training for a separate group of blood, preventing the causes of stress, which will contribute to an increase in their psychological and emotional stability, health and human well-being.

Terletska Yevhenia Olexandrivna, Boyko Kateryna Olexandrivna

THE EVALUATION OF QUALITY OF LIFE OF YOUTH DIFFERENT LEVELS OF PHYSICAL PERFORMANCE

Research advisor: candidate of Medical Sciences Nazarko Nataliya Mykolaivna
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Bogomolets National Medical University
Kiev, Ukraine

Actuality: A research of the quality of life is very important component to identify health state now. The process of poll holding is not very difficult. Therefore, there are many different methods to evaluate a quality of life. However, this problem is not studied enough. Which one is the most effective, relevant and the most accurately demonstrate problem of the quality of life.

Aim: To compare methodology of evaluation of the quality of life, prepared by "Evidence Clinical and Pharmaceutical Research" and methodology prepared by Multinational center of evaluation of the quality of life.

Materials and methods: There were 136 students (21±0,3 years old) of Bogomolets National medical University inquired during this research. Physical performance were assessed by a national standard (Patent UA 34351 A) and a quality of life were assesed by SF-36 health survey. For the evaluation a methodology, prepared by "Evidence Clinical and Pharmaceutical Research" and a methodology, created by Multinational center of evaluation of the quality of life, were used.

Results: Using methodology, which was created by Multinational center of evaluation of the quality of life, a significant difference comparing indexes of emotional role functioning and general health perceptions ($p<0,05$) between the groups with different levels of physical performance were found. A significant difference was found comparing indexes of general health perceptions, vitality, social role functioning, bodily pain ($p<0,001$). Also a significant difference was found comparing emotional role functioning and mental health ($p<0,05$) using a methodology of the quality of life research, prepared by "Evidence Clinical and Pharmaceutical Research".

Conclusions: Methodology of evaluation of the quality of life prepared by Multinational center of evaluation of the quality of life requires less time and data, but it gives less reliable results. Methodology of evaluation of the quality of life prepared by "Evidence Clinical and Pharmaceutical Research", needs more time and

resources, but it gives more possible and reliable results.

Tokareva I.l.

MEDICAL RESEARCH IN METROLOGY

Kharkiv National Medical University, Research Department.

Measurements in medicine is quite specific, so metrology allocated a separate direction - medical metrology. Medical Metrology - Metrology direction, whose main task is to ensure the unity and reliability of measurements in medicine. Research in the field of health metrics, benchmarks are conducted within the medical metrology, samples, etc. These medical metrology used in medical information systems

Technical devices used in medicine, called the generalized term "medical equipment". Most of the medical equipment related to medical equipment, which in turn is divided into medical devices and medical devices.

Objective

To analyze the existing types of medical equipment, and to consider their metrological assurance for the correctapplication in scientific research.

Results. The medical device is considered to be a technical device intended for diagnostic or therapeutic measurement (medical thermometer, sfigmomanom emp, electrocardiogra ph, etc..).

Medical device - a technical device that allows you to create the energy impact of therapeutic, surgical or bactericidal properties, as well as providing medical purposes defined composition of various substances (unit UHF-therapy, electrosurgery, the suit sstvennoy kidney, ear prostheses, surgical apparatus and equipment operating, therapeutic types of devices using various types of radiation, etc.).

Conclusions The metrological requirements for medical devices are quite obvious. Many medical devices are designed to provide energy metering effect on the body, so they deserve the attention of the metrological service.

The Law of Ukraine "On metrology and metrological activity" in the new edition of the 15.01 2015 defines the legal framework for ensuring the uniformity of measurements in Ukraine, regulates public relations in the sphere D metrology, aimed at protecting the citizens and the national economy from the consequences of doubtful results of measurements.

When the research should be guided by the requirements of the Act, only in this case and ssledovatel

can be sure that the results of experimental studies, obtained by him in the course of work, are reliable and reproducible.

Tokareva Il

SYSTEM METROLOGICHETION PROVIDE MEDICAL EQUIPMENT IN HEALTH CARE

Kharkiv National Medical University, Research Department

Actuality. Modern medicine has a huge amount of measuring instruments: from elementary thermometers for measuring body temperature, blood pressure monitors, scales up devices for ultrasound,
computed tomography, etc...

The accuracy of their readings depend correct diagnosis and effectiveness of treatment prescribed by a doctor. Not by chance, in the measurement, which are used in medicine and public health, fall within the scope of state regulation of ensuring the uniformity of measurements.

Purpose - analysis of metrological provision of measuring instruments for medical purposes in the health sector based on the study of normative legal acts of the legislation of Ukraine.

Results. The need for verification of measuring instruments used in the medical organizations - is one of the components, guaranteeing and certifying the quality of medical services provided by the agency. Of course, this contributes to the fact that the existence of an agreed list of used measuring devices, graphs of power metal ki and their timely execution, assigning responsibility for metrological provision of medical institutions - important licensing terms medical facility. The Law of Ukraine "On metrology and metrological activity" operating in the country since 1998 (revised from 15.01. 2015) It regulates the relations of which arise in the process of e metrology

Starting the implementation of research, fulfilling the requirements of the Law of Ukraine "On metrology and metrological activity" should be aware of dissertation: measuring equipment for medical purposes, used in scientific research, should be metrologically believed territorial center of standardization, metrology and certification, and have the testimony of Mr. metrolo nical verification. Verification is carried out once a year. Work on unverified devices is strictly prohibited;

Pilot studies should be carried out in laboratories accredited by the Ministry of Health of Ukraine, to the right of measuring work and have the corresponding certificate.

Conclusions. Fulfilling the requirements of the Act of dissertation can be sure that the results of experimental research, obtainings them in the process, will be accurate and reproducible.

Topchii S.V., Izmailova L.V.

STRUCTURAL ORGANIZATION OF NERVES OF THE SUPERFICIAL TEMPORAL AND FACIAL ARTERIES

Research Advisor: PhD, Associate Professor Kulish A.S.
Department of Human Anatomy
Kharkiv National Medical University
Kharkiv, Ukraine

Actuality: Nervous system of vessels, in particular arteries, has attracted the attention of the morphologists and clinicians for a long time. Currently, in addition to practical requests of agiosurgions, accurate data on the structural organization of the nervous apparatus of adventitial plexuses of arteries are of great theoretical value for a more complete understanding of the nerve supply of each organ.

The aim of this study was to clarify the sources of nerve periarterial plexuses of superficial temporal and facial arteries, quantify the structural organization of myelin nerve component constituting their adventitial plexuses.

Materials and Methods: The study was conducted by conventional and macromicroscopic and gistotopographic methods. Complex modern morphological methods were used to obtain data on the structural organization of the nerves. Cross-sections of the neurovascular complexes stained according to methods of Weigert Pal and Krutsau were studied.

Results: Macromicroscopic preparation methods using a binocular microscope revealed that sources of the adventitial nerve plexuses of the superficial temporal and facial arteries are branches of the superior cervical ganglion of the sympathetic trunk and branches of the facial, trigeminal, vagus and glossopharyngeal nerves. Studying histograms of neurovascular complexes of the superficial temporal and facial arteries showed that their adventitial plexuses forming nerve trunks of various sizes. Thus, adventitia of the temporal artery of the newborn in its proximal part the number of trunks ranges from 3 to 8, in adulthood - from 7 to 15. The adventitia of the facial artery has from 2 to 5 trunks, in newborns, in adulthood - from 5 to 12. The nerves of newborn they are represented only by thin (1-3mkm)

fibers. In adulthood, the spectrum of myelin fibers is mainly represented by fine fibers, their content is 82-85%, the content of the medium-sized fibres (diameter 3-7mkm) - 7-11%, and thick ones (7-10mkm) - 5-9%. The total number of myelin component in the nerves of the superficial temporal artery in newborns was 9 ± 3,3, in middle age - 56 ± 11,8. In the nerves of the adventitial plexus of the facial artery in newborns total number of myelin fibers was 7 ± 1,8, while in adulthood - 37 ± 9,6.

Conclusion: Thus, the main sources of studied plexuses are branches of the superior cervical ganglion of the sympathetic trunk, the branches of the facial, trigeminal, glossopharyngeal and vagus nerves. The nerve plexuses in the adventitia of the superficial temporal and facial arteries are formed by macroscopically visible as well as by microscopic nerves with diameter less than 70 microns. Quantitative and qualitative data of myelin fibers in the nerves of adventitial plexuses of studied arteries vary according to the age and the widths of studied vessels.

Tsimokh I., Zhuravleva P.

COMPLEX GENETIC DISORDERS

Research advisor: Shmulich O.,Candidate of Biological sciencis
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Introduction. The problem of studying genetic mechanisms of predisposition to diseases, inheritance of which does not fall under the Mendel's rules and depend on a significant number of genes with additive effect (genetic component) and on the environmental factors (environmental component) is one of the less examined.

The actuality of this problem solving lies in the fact that on the modern stage the multifactor diseases make 94% of all human diseases.

The aim of our research is to determine influence of the environmental factors and genetic predisposition on diabetes mellitus development.

Material and methods. The research method is data collection from the controlled group of 46 persons, among whom were sick and healthy people of different ages. Data collection took place over several days.

The group under research consisted of mono- and dizygotic twins, 19 persons with genetic predisposition and influence of internal and external factors, 15 with influence of factors but without genetic predisposition, 8 with predisposition but without influence of factors.

Results. The research has shown that disease was manifested by the influence of various factors on people who have no genetic predisposition. But observing certain rules group with a genetic predisposition has avoided diseases.

The conclusion. On the basis of data, collected from this group such conclusions were made:

1) Susceptibility is the higher, the higher level of environmental factors is, because relatives have one and the same habitat,

2) Risk for relatives of proband depends on the relation degree – disease frequency decreases under decrease of the relation degree,

3) Internal factors (low-activity mode of life, improper feeding, susceptibility to overeating and obesity, intensity of pancreas work, taking preparations that influence on the carbohydrate metabolism: caffeine, adrenalin etc., previous infectious diseases: smallpox, German measles etc.) significantly intensify activity of genes with the additive effect,

4) Availability of unfavorable external environmental factors (stresses, constantly changeable environmental conditions, professional load etc.) strongly influence in case of availability of genetic predisposition of a person,

5) 5.2% of persons without genetic predisposition but with influence of various factors the disease was revealed,

6) Concordance in monozygotic twins is pronounced greater than in dizygotic twins,

7) The higher the degree of severity in relatives of proband, the severer disease appears,

8) Under similar external factors the type II diabetes appears more quickly.

Determination of influence of various factors on development of multifactor disease is important for the modern medicine for provision of early and rational disease treatment and prophylaxis.

Vdovychenko E., Klimchuk O.

ANATOMIC-FUNCTIONAL CHARACTERISTICS OF THE LOWER LIMB JOINTS IN CASES OF FLAT-FOOTEDNESS

Research Advisor: Doctor of medicine, professor Fomina L.V.
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Kharkiv, Ukraine

Actuality: Human loco-motor system plays a key role in life of a person, because in case of loco-motor system disorder not only does the quality of life suffer some changes but it also affects the functioning of inward parts of a body. For efficient axial load redistribution, lower limb joints form angles against long axis of the body. In case of the abnormality of one angle curve it may lead to pathological changes of other angles. As a general rule, in prospect it may lead not only to the development of the limb supporting function insufficiency but also to some structural changes in epiphysis of the bones, in particular, the head of femur.

The aim: to find out the relationship of the anatomic-functional changes in the coxofemoral joint to the degree of flat-footedness.

Materials and methods: 15 young men of the military service age group were observed during the research. Among 5 of them there was no flat-footedness observed but the rest 10 people were evaluated with some pathological changes, as follows: 4 young men had the 1st degree of flat-footedness, 4 persons had the 2nd degree of flat-footedness and 2 young men had the 3rd degree. The record of the low limb angles was performed against the anatomical axis in the frontal plane. From this point on we performed the evaluations of the relationship of the changes in the coxofemoral joint to the degree of flat-footedness.

Findings of the research: According to Y. Zhuravlyov (2012) the normal arch height of the foot equals to >35mm, and the angle of the longitudinal arch of the foot equals to 128◦ ± 2◦. According to our results, the arch height of the foot among 5 young men with no flat-footedness averaged to 38mm with the angle of 129.7◦. Their proximal anatomic angle of the femoral bone (hereafter as PAA) varied from 84.8◦ to 86.9◦ and their cervical-diaphyseal angle (hereafter as CDA) varied from 130.4◦ to 132.2◦. In case of 1st degree of flat-footedness the PAA observed among the young men varied from 87.1◦ to 91.7◦ and the CDA varied from 134.7◦ to 141.9◦. Cosmetic disability in a form of club foot was observed among the young men. In case of 2nd degree of flat-footedness the PAA observed among

the young men varied from 93.7◦ to 100.2◦ and the CDA varied from 145◦ to 155◦. In case of 3rd degree of flat-footedness the PAA observed among the young men varied from 102.2◦ to 102.8◦ and the CDA varied from 158.1◦ to 159◦.In cases of the 2nd and 3rd degree of flat-footedness the young men complained of the pain in coxofemoral joint, specifically during long-lasting physical-activity.

Conclusion: Untreated flat-footedness, which leads to the changes in the angles of the coxofemoral joint, in the future may lead to early sclerotic changes in it that may appear as a result of excessive stretch of the band in the femoral head that promotes its nutritional disorder.

Yuncova K.O., Yurkina I.S., Kolisnik I.L.

AGE-RELATED CHANGES IN VESSELS OF ADRENAL GLANDS

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Actuality. In order to study of age-related changes in vessels studied 50objects of different ages. Adrenal arteries of fetus and newborn wide, but trunks are short, thereby adrenal glands little mobile and closely are adjacent to kidney, diaphragm and aorta. With age, caliber of adrenal arteries relatively reduces, and length increases, glands become more mobile and a layer of fat separates from above-mentioned organs.

Relationships changes acutely with age, between upper adrenal artery and gland. Upper adrenal artery of fetus and newborn presented by separated trunk, which is located on surface of organ. Along with development of diaphragm and increasing of its functional load upper adrenal artery transforms into diaphragmatic artery. This vessel is not located on adrenal gland, and above its upper margin and goes with its main trunk to diaphragm, sending to adrenal gland lateral branches. Thus, in adult, unlike of fetus and newborn, there is not one upper adrenal artery, but few small branches.

Branches of adrenal arteries are located on the gland superficially and loosely in fetus and newborn, as an adult, they are immersed in substance of organ, tightly accrete with stroma. Adrenal artery of fetus and newborn splits on capillaries subcapsulary, and in adult, in thickness of organ.

In adult thereby division of adrenal gland by connective strands into

particular lobules and some parts, intraorganic vascular network of cortical part acquires certain isolation.

The capillaries of adrenal glands of fetus and newborn do not have an independent form, presented by slits that repeat space between cells, their walls are extremely thin. With age capillaries of adrenal glands becomes clear outline and compactness.

Capillary network of adrenal glands in adult becomes less dense and it is not marked independent capillary networks corresponding to different zones of cortical substance.

In fetus and newborn is only one way of outflow from the gland - central vein. In adult except central vein on surface of organ there are several thin veins, their number and caliber is not constant.

Zaporozhchenko Y. S., Maslova N. M.

INFLUENCE OF MILD EMOTIONAL STRESS ON THE HEART RATE

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Relevance. Emotional stress is a state of explicit emotional experiences of sudden difficulties of life, the inclusion of non-specific adaptive mechanisms due to the pathogenic effects of the environment, extreme force or prolonged negative emotions (Isaev D. N.) It is of great importance, because it is the basis of many physiological coping responses, which allow to overcome conflicts, personal fears and anxieties. It is also important that the manifestations of stress in students (fear of exam, etc.) can have a crucial effect on all body systems: nervous, immune, cardiovascular and others. Therefore, the study and the knowledge of changes of the sympathetic and parasympathetic nervous systems during emotional stress are required. The circulatory system has a high reactivity and plays a crucial role in the adaptation reconstructions of the physiological state of the organism.(Tkachev V. I., Nadezhkina E. Yu., Filimonov O., 2015) Increase of heart rate during emotional stress is due to the influence of the sympathetic nervous system. The decrease of heart rate during emotional stress is due to the action of the parasympathetic nervous system (Y. V. Shcherbatykh, 2000)

Aim. The determination of the influence of mild emotional stress on the heart rate among the students.

Method. We undertook a study of 56 students in 4 groups of 4 faculties. To assess the reactivity of the autonomic regulation the pulse rate was measured at the radial artery for 1 minute, while sitting, at rest, before emotional stress and after it. The creation of a mild emotional stress in the form of assignments of licensing examination "KROK-1" for last semester was a stress factor.

Results of research. In groups with good progress the pulse rose from 70 % of students: less than 5 beats per minute in 23%, 5-12 beats/minute - 40% and by more than 12 beats a minute in 7%. The heart rate decreased from 30% of students: less than 5 beats per minute in 15%, and 5 to 12 beats per minute also 15%. In groups with low performance the heart rate is elevated in 50% of people. In less than 5 beats/minute heart rate was increased in 15%, on 5-12 beats - 7%, heart rate was increased by more than 12 beats per minute in 30%. The pulse rate dropped in 30% of students in 5-12 times per minute, and 20% remained unchanged.

Conclusions. The studies have found that during mild emotional stress there are changes in the direction of strengthening of sympathetic influences, to a greater extent among students with high academic performance(70%). This is due to the stronger emotional stress in students who have a responsible attitude to the educational process.

Zavgorodniy. A. Karnaukh E.,

BIOTECHNOLOGICAL INNERVATION AGAINST THE HEPATITIS C

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Actuality. Currently, hepatitis C occupies a significant place in the structure of morbidity and mortality. In the world of chronic hepatitis C (CHC) It affects about 3% of the population, or about 180 million people.

Aim. Based on the reviewed literature to summarize information on current antiviral drugs, which are used for medical treatment of viral hepatitis.

Matherials and methods. For the treatment of hepatitis C using preparations prepared by genetic engineering - recombinant alpha-interferons.

Results. Interferon alfa-2a (Roferon-A), one vial contains 18 million IU of recombinant interferon alfa-2a and 0,005 mg of human serum albumin, the minimum combination therapy Roferon-A with ribavirin it lasts 6 months. Initial dose - 6 million IU 3 times a week for 3 months, maintenance dose - 3 million IU 3 times a week for an during 3 months; Interferon alfa-2b (Altevir) exhibits a nonspecific antiviral and antiproliferative activity, gives the synthesis of viral RNA and viral proteins in the cell and stimulates the process of antigen presentation to immunocompetent cells, has the ability to stimulate the phagocytic activity of macrophages and cytotoxic activity of T-cells and "natural killer" involved in antiviral immunity. It is used at a dose of 3 million IU 3 times a week during 24-48 weeks. Interferons are used in combination with ribavirin. This therapy is effective in about 75% after a year of treatment. This method has serious side effects: aplastic, hypoplastic anemia, dryness of the oral mucosa, nausea, changes in TSH levels, thyroid dysfunction, arthralgia, myalgia, allergic reactions. A new class of drugs - anti-virus agents a direct action - sofosbuvir. It suppresses the replication of hepatitis C virus.

Conclusions. Treatment during the first six months is more effective than once hepatitis C has become chronic. Sofosbuvir with ribavirin and interferon appears to be around 90% effective in those with genotype 1, 4, 5, or 6 disease. Sofosbuvir with just ribavirin appears to be 70 to 95% effective in type 2 and 3 disease but has a higher rate of adverse effects.

J.G. Zhadan, T.M. Sazonova

THE STUDY OF THE CRP LEVEL IN BLOOD SERUM IN DIFFERENT TERMS AFTER THE SIMULATED CRYONECROSIS OF MYOCARDIUM

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Medical Faculty. Department of Human Anatomy
Scientific supervisors: Dr. Panov S.I., Associate Professor of the Department of Human Anatomy;
Dr. Sherstuk S.A., Professor, PhD, the Head of the Department of Human Anatomy

The development of myocardial infarction is the reason of the occurrence of systemic and local inflammatory reaction and activation of an acute-phase protein, like C-reactive protein. The ratio between the CRP and cardiovascular diseases has been researched for the many years. The results are described in many researches.

Purpose of work is to determine the CRP level in blood serum in different terms after the simulated myocardial infarction by means of local dosed cryotherapy on 7th, 14th and 28th day of supervision.

Materials and methods. Experiments were carried out on 43 mongrel male rats. The myocardial infarction model was made surgically on rats, using the ether mask anesthesia. Heart cryotherapy was carried out by means of the nitrogen cryotools with an applicator under -196 °C. The CRP level in blood serum was researched on 7th, 14th and 28th day of supervision. Researches were carried out by means of the using of the immunoenzimic analyzer «Labline–90» and the commercial test-system of the company "Vector Best". The amount of the CRP was measured in mg per a liter of serum.

Results. The study found the increasing CRP level in blood serum after the simulated cryonecrosis of myocardium on 7^{th} day by 70,2 percent from the normal amount, on 14^{th} by 70,4 percent and on 28^{th} day by 70,8 percent from the normal amount.

Conclusion. The research demonstrated increasing CRP level in blood serum after the simulated cryonecrosis of myocardium on 7th, 14th and 28th day of supervision that characterizes CRP as a marker of the inflammatory process after myocardial infarction.

DENTISTRY

Al-Salihi A.I.

LONG –TERM RESULTS THE USE OF DIODE LASER 940 µm IN THE DURING PERIODONTAL THERAPY

Research advisor: Cherepynska Ju. A., PhD
Therapeutic Dentistry Department, Kharkiv National Medical University, Kharkiv, Ukraine

Actuality: Mechanical remove of biofilm can't completely remove periodontal pathogens, which may lead to recurrence. Diode laser technology can additionally have a photothermal devastating effect,coagulating impact on soft periodontal tissue, reengineering and bio-stimulating effect on the healing process.

The aim to explore the dynamics of the degree of clinical attachment loss (CAL), probing pocket depths (PPD) and bleeding index (BoP) in the complex treatment of patients with chronic generalized moderate periodontitis while using the diode laser 940 µm.

Materials and methods: 30 patients aged 35-44 with chronic generalized II degree periodontitis were divided into three equal groups at random. Local selection criteria: index PI ≥ 25%, BoP ≥ 40%, PPD ≥ 4mm. General selective criteria excluded: oral antiseptics and antibiotics during last three months, pregnancy, any systemic disease affecting the results of clinical studies. The treatment protocol in the 1st group: sub-gingival irrigation with H2O2 3%, 0.2% CHX, electro-mechanical removal of dental plaque, sub-gingival scaling and root planning, gel application CHX 0.5% - 5 min. The treatment protocol of 2nd group additionally include laser irrigation of periodontal pockets (940 µm, uninitiated light guide Ø 300 µm, 1W/CW), coagulation of soft tissues of a periodontal pocket and de-epithelization of gingival margin (940 µm, initiated light guide Ø 300 µm, 2W/CW). The treatment protocols in the 3rd group were analogous to the 2nd group but excluded antiseptics. All patients were given standard oral care recommendations. Basing on the periodontal card data in 6 weeks, 3, 6 and 12 months, the treatment protocol was repeated in the respective groups.

Results: In 6 weeks, 3, 6 and 12 months after treatment positive dynamics was observed in all groups, but the values of BoP and CAL/PPD in the II and III groups were more stable than in the I one, and the dynamics of indices in the II and III groups were almost similar. Significantly different among themselves ($p<0,05$).

Conclusions: Results of clinical studies indicate that the use of diode laser 940 µm during the complex therapy of patients with chronic generalized moderate

periodontitis is clinically justified, appropriate and effective additional way of treatment allowing to reduce the surgical intervention and medications. Further study of long-term results of this treatment will allow comparing the duration of remission in these groups.

Baghdadi Moustafa, Nadhim Ahmed, Alkhdo Ali, Almaho Mustafa, Palii O.V.

STATISTICAL ANALYSIS OF HYGIENE TOOTHPASTES BY STUDENTS OF FACULTY OF DENTISTRY

Research advisors: Ryabokon E.N., Garmash O.V.
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Actuality: Epidemiological studies conducted in different countries have shown that periodontal disease is the most common pathology, which occurs in different groups up to 80% of the population. WHO data show the progression of periodontal disease in countries where the hygienic state of the oral cavity is ignored by population or provided not enough.

The aim: One of the trends in order to strengthen the resistance of hard tissues of teeth and periodontal tissues is the use of health instruments (paste, mouthwash, etc.). Despite the wide range of toothpastes on the market, distribution of advertising media and electronic network, the patient alone has to make the choice and it is difficult one. Based on the above, it is interesting to study the variety of therapeutic and prophylactic toothpastes selected by students of dental faculty of Kharkiv National Medical University.

Results: The results show that among the foreign students surveyed (32 persons aged 18-25 years), the most popular is Colgate toothpaste (43,75%). Second place on the use takes Sensodyne pasta in its various versions.

It should be emphasized that 54.37% of the people use different toothpastes with bleaching effect. Thus, on the first place is Blend-a-med 3Dwhite (27,3%), then Closeup (18,2%), ROCS Whitening (9,1%), and others. Pastes for the prevention and treatment of periodontal deseases amounted up to 18,75%.

Conclusions: Despite the fact that among Arab students there are significant percentage of periodontal diseases, this young people prefer to use whitening toothpastes, rather than treatment and prevention one. Thus they choose aesthetic result, rather than curative.

Belyaev P.V.

NEW APPROACHES TO COMPREHENSIVE TREATMENT INFLAMMATORY DISEASES OF MAXILLO FACIAL REGION

Course of Dental Surgery the Faculty of Postgraduate Education, Vinnitsa National Pirogov's Memorial Medical University, Vinnitsa, Ukraine.

Actuality: The problem of inflammatory 84axilla-facial region diseases treatment is one of the most serious problems of modern dentistry. We have developed a new method for the treatment of inflammatory diseases, based on the use of Nanodispersed silica with cationic surface active antiseptic, directed antimicrobial agents transport into inflammatory region and immunomodulatory therapy.

The aim is to confirm the effectiveness of the developed method for treatment of inflammatory 84axilla-facial region diseases.

Materials and methods: Comparative assessment of the effectiveness of the developed inflammatory diseases treatment method was conducted in 67 patients with purulent-inflammatory diseases of 84axilla-facial region. They were divided in two groups. Patients were representative for pathology, age, sex and co-morbidities. All patients underwent disclosure suppurative focus and its drainage. In the main group (32 patients) the postoperative treatment was performed by developed methodology and in the comparison group (35 patients) – by traditional methods. Evaluating the effectiveness of the treatment was performed due to clinical, laboratory, microbiology, cytology and statistical research methods.

Results: The results showed that at the main group of patient normalization of clinical and laboratory parameters took place more quickly than in the comparison group. Cytological picture showed that at the main group inflammation almost completely disappeared at 5th day of observation, refined wounds of necrotic tissues, appeared bright red granulation, bacterial wounds contamination was below a critical level, which allowed to stitch secondary sutures. While in the comparison group and even at 6th day of observation granulation tissue was pale and partially filled the wounds. At tsytohramas were determined degenerative modified leukocytes and neutrophils with incomplete phagocytosis, although observed activation of phagocytosis and the presence of fibroblasts. Microbial contamination of wounds was significantly higher than in main group patients. Completing Of the first wound healing phase in this group of patients was only at 7th-8th

day, which required a prolongation of 85axilla85ization.

Conclusions: Treatment of 85axilla-facial region inflammatory diseases by the developed method ensures rapid purification of wound surface from necrotic tissues and microorganisms, leaded to the early appearance of granulation, stimulated of reparative regeneration processes, and allowed to reduce the time patients hospitalization.

Bogatu Svitlana

IS THE ASSOCIATION BETWEEN GASTRIC HELICOBACTER PYLORI INFECTION AND ORAL PATHOLOGY?

Research advisor: Prof. Shnaider Stanislav Arkadiovych
Odesa National Medical University
Department of general dentistry

Introduction. Helicobacter pylori (HP) infection is one of the most prevalence bacterial infection in the world. HP is a gram-negative, spiral or curved, microaerofilic bacterium, producing the urease. HP causes the develop of chronic gastritis (typeB), gastric and duodenal ulcer, MALT-lymphoma and adenocarcinoma of the stomach. Considered, that the only natural place of HP existence is the gastric mucosa. Numerous studies of foreign scientists have shown the presence of HP in different biotopes of the oral cavity: in dental plaque, saliva, periodontal pockets and on the prosthetic surface. The oral cavity has been suggested as a permanent reservoir of HP and the source of self-infection and re-infection in patients after successful eradication in stomach. Currently, HP is regarded as an etiological factor of a number of diseases of the oral cavity.

Aim: to review the literature and to reveal the relationship between HP infection and pathology of the oral cavity, such as periodontal disease, recurrent aphthous stomatitis (RAS) and halitosis.

Results. In patients with HP-positive gastric pathology periodontal disease are more pronounced, and occur more actively, subgingival plaque (in this case) is a reservoir of HP. HP-eradication therapy (HPET) conducted alone will not be effective for the control of gastric reinfection. RAS is the oral inflammatory disease, characterized by the presence of erosions / ulcerations, ulcers with necrosis, surrounded by an erythematous halo lying beneath the mucosal lining, which relates to a keratinized mucosa. Porter et al. reported about positive serology in RAS, which determined the relative frequency of HP-antibodies IgG with

small aphthous ulceration. Most authors suggest that HPET significantly improved the course of the RAS and reduced the number of relapses. A lot of researchers have tried to correlate halitosis and HP. The first were Tiommy et al., who studied patients with halitosis, who was HP-positive. They found that the halitosis had disappeared after HPET, and highlighted the possible association between halitosis and HP infection. Serin et al. assigned triple HPET duration of 2 weeks in patients with halitosis and HP-positive gastric pathology. They reported in patients with proven HPET, halitosis was the most successful foregone conclusion symptom. Therefore, they believed that halitosis is frequent and curable symptom HP-positive non-ulcer dyspepsia, and can be justified indication for HPET. The clinical symptoms associated with bad breath and periodontal symptoms were significantly manifested in HP-positive patients. After the triple HPET halitosis disappeared in 90-100% of cases.

Conclusions. All the above shows the association between gastric HP infection and oral pathology. Therefore, oral diseases on the background gastric pathology should be considered as the complex problem and co-treated by a gastroenterologist and dentist.

Dotsenko D., Vishnevetskaya A.

EARLY DETECTION OF PEMPHIGUS VULGARIS IN THE ORAL CAVITY

Research advisor: PhD. Kamina T.
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Kharkiv, Ukraine

Actuality: Pemphigus vulgaris (common pemphigus) is an autoimmune disease, characterized by the blisters in mucous membranes and skin, turning into bursting bright pink erosion. Morbidity for this disease is 0.1-0.5 per 100000 population in the world. People between the ages of 30 to 60 suffer from it. About 2/3 of the cases begin with the emergence of blisters in the oral cavity, and involving the epidermis only after a few months or years.

The aim: As a rule, mucous membrane lesions are observed at different stages of the disease. Generally, it rarely happens to see the not-opened blister because of the fragility of its membrane mechanically damaged during food intake. Round or oval erosions on the non-hyperemic mucous are to be found in the mouth cavity. Erosions can be red and moist or “sebaceous”,

the surface of which is covered with fibrinose films. On the periphery of erosions whitish scraps of cystic operculum are observed. Its pandiculation with forceps can cause the disruption of epithelium beyond the erosion (sign of Nikolsky is positive). Operculum of the opened blisters remain on the erosions, making a whity-greish plaque, nevertheless, it can be easily removed with a spatula. The diagnostics of pemphigus vulgaris include clinical and laboratory proofs. Acantholytic cells are changed cells of the spinous layer, that underwent acantholysis and degenerated, that's why acquired morphologic and tinctorial characteristics, distinguishing from over normal cells of that layer.

Materials and methods: During the consultation service patient A., 28 years old, complained about tender erosions on the whole skin cover, obliged restriction of a body position and movements because of the massive affect of skin cover and faint. The pale pink mucous membrane epithelium of the mouth is softly moistened; there are singular fragile painful erosions at the stage of epithelialization, the diameter 0.5-0.7 mm in the area of occlusion of teeth on the right cheek and side face. At the time of the examination of the patient's general state was classified as moderately severe. The patient also marked that for over 2 years till the final diagnosis accidental trauma of the mucosa was accompanied by subjective feelings. At the beginning, the patient didn't resort to medical help, then during the sanitation complained about it to the dentist's, but received only general recommendations on oral care. The diagnosis was made at the stage of involvement of the skin cover in the pathological process.

Conclusions: Early diagnostics of the disease presupposes more chances for patient's further properly functioning life. It consists in timely referral to a doctor, namely to the dentist, as its primary germination begins in the oral cavity.

Kishkan A., Marinko Z., Tishchenko A., Slavich A.

EXPERIENCE OF PLANT-BASED GEL IN TREATMENT OF CHRONIC CATARRHAL GINGIVITIS

Research advisor: Slavich A.
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Actuality: WHO data indicate a high prevalence of periodontal disease among the population. In this regard, the choice of medicine used to treat them, continues to be relevant in the present days. Local drug therapy with the use of plant medicine has much fewer side effects than chemical substances and it takes one of the leading places in the

complex therapeutic measures when treating periodontal diseases.

The aim of work was to study the effectiveness for clinical application of preventive anti-periodontal plant-based gel in the treatment of chronic catarrhal gingivitis (CCG).

Materials and methods: We conducted a comprehensive treatment of 24 patients aged 18 – 48 years with the CCG. There was used plant-based "Abigel" gel (PP "Latus", Ukraine).

"Abigel" is a semisolid gel containing fir oil, oak bark extract, gelling agents, synthetic resin and water. The main property of oak bark is astringent action; it also has hemostatic, antiseptic and anti-inflammatory characteristic. Fir oil has disinfectant, antibacterial, antiseptic, anti-inflammatory, pain-relieving properties. "Abigel" stimulates recovery of gingival tissue. It is rapidly absorbed by oral mucosa.

The diagnosis was carried out on the basis of patients' complaints, anamnesis, clinical status, index assessment of periodontal tissue condition and other research methods.

All examined patients after professional oral hygiene had gel application to the buccal and lingual surfaces of the gums on upper and lower jaws, as well as in the gingival and periodontal pockets using a cannula needles, exhibition – 4-5 min. After the procedure, patients were not recommended to eat for 40 – 60 min. The home patients were trained to apply self-application gum gel for 3-4 minutes, two times a day. The treatment course lasted 4-6 days.

Results: After the treatment there was observed a positive trend during the pathological process in the periodontium among all 24 (100%) patients with CCG. Patients had decreased intensity of inflammation indicators, increased capillary resistance to vacuum, improved performance of hygiene indices.

Conclusions: Thus, our results point to the effectiveness of the plant-based "Abigel" gel in the complex treatment of chronic catarrhal gingivitis. This gel can be recommended for use in practice.

Kryvenko L.

COMPARATIVE CHARACTERISTIC OF PERIODONTAL AND ORAL HYGIENE STATUS IN CHILDREN WITH ALLERGIC DISEASES

Research advisor: Professor Nazaryan R.
Pediatric Dentistry, Pediatric Maxillofacial Surgery and Implantology, Kharkiv National Medical University, Kharkiv, Ukraine

Actuality: Allergic diseases such as bronchial asthma, allergic rhinitis and atopic dermatitis are a global public health problem. The prevalence of these diseases is increasing worldwide, especially among children.

The aim to compare periodontal and hygienic status of oral cavity in children with bronchial asthma, allergic rhinitis and atopic dermatitis.

Materials and methods: 96 patients with bronchial asthma, allergic rhinitis and atopic dermatitis, aged 5 to 18 years, were examined to identify their hygienic and periodontal status. The results of the dental examinations were compared with the control group (30 patients), corresponding by age and gender. Hygienic status was determined using a modified index Quigley-Hein (Modified Quigley-Hein Plaque Index, MQHPI), the degree of gum inflammation – through bleeding gums index (Sulcus Bleeding Index, SBI, Mühlemann and Son 1971).

Results: Showed the worst hygienic status and degree of gum inflammation among children with asthma when compared to children with allergic rhinitis and atopic dermatitis and the control group. The average age of patients was 11,9 (± 0,22) years for bronchial asthma group, 13,1(± 0,26) for allergic rhinitis, 10,2 (± 0,18) for atopic dermatitis and 15,2 (± 0.23) years for the control group. When comparing the level of hygiene between the main groups and the comparison group, the average score for asthmatics MQHPI was equal to 2,03 (± 0,52), for allergic rhinitis 1,87 (± 0,43), for atopic dermatitis 1,94 (± 0,61) compared to 1,29 (± 0,31) in the control group, the difference in the groups was statistically significant ($p < 0.01$). In determining the degree of gingivitis, the difference between the main group and the comparison group was also reliable – 1,82 (± 0,41) among children with asthma, 1,67 (± 0,52) in allergic rhinitis group, 1,53 (± 0,64) in atopic dermatitis group and 0,29 (± 0,43) in the comparison group.

Conclusions: Children with such allergic pathology as bronchial asthma, allergic rhinitis and atopic dermatitis should be referred to the group of risk associated with periodontal diseases (gingivitis).

Pavlova K.

THE POSSIBILITIES OF PHONOGRAPHIC METHODS OF RESEARCH OF A CONDITION OF OCCLUSION AND EFFICIENCY OF MASTICATORY PROCESS

Research advisor: Ph.D. Krivchenko Y.
Department of Anatomy, Kharkiv National Medical University, Kharkiv, Ukraine

Actuality: The modern world of dental practice has achieved considerable success in providing quality patient care. At the same time, literature data and statistics indicate a significant number of patients who complain of so-called facial pain, caused by incomplete recovery of interdental contacts the upper and lower jaw, the so-called occlusion, after treatment. Diagnosis of the state of efficiency of the chewing process, which indicates the completeness of rehabilitation of dental patients has importance.

The aim to study the anatomical structure of the upper and lower jaws, find out the possible anatomical changes and functional disturbances due to improper occlusion, to develop and carry out approbation phonographic methods of research of functional state of occlusion and masticatory efficiency, evaluate opportunities, information, and the accuracy of the phonographic methods of the study of occlusion and masticatory efficiency of the process for assessment of the functional state of dentoalveolar system in comparison with traditional diagnostic methods.

Materials and methods: We offered scheme of phonographic study of the state of the teeth-jaw system. We studied by this method 29 patients aged from 13 to 17 years, of which 17 patients represented a control group, i.e. patients with normal occlusion and 12 patients with various disorders of occlusion and bite (progenic, prognathic, open, cross). 87 measurements of phonograms, which were able to assess the efficiency of the chewing process were performed. A comparative evaluation of masticatory efficiency by the method of I. S. Ruby, made the analysis of literature, scientific works, which helped to create a more simple and affordable method to study the functional state of the teeth-jaw system.

Conclusions: The main conclusion that we made from the results of the research, is that our phonographic method of assessing the process of closing teeth and determine the effectiveness of the chewing process allow to diagnose disorders and evaluate the degree of normalization. And, based on the fact that the methods are simple, informative, reasonably accurate, do not require special training and conditions for their conduct, they may find widespread use in dental

practice.

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Melynuk V. S., Horzov L. F., Sabov A.V.

SOCIAL ASPECTS OF PROVIDING DENTAL CARE IN UZHHOROD CHILDREN

Department of Pediatric Dentistry, Uzhgorod National University, Uzhgorod, Ukraine

Actuality: The provision of free, affordable and quality dental care need especially to vulnerable segments of the population such as children with disabilities, families in which the parents are themselves disabled, orphans.

The aim to study the availability and people's satisfaction in receiving timely, quality, effective dental care to children in Uzhgorod.

Materials and methods: With the aim of exploring and comparing views of patients with children, their satisfaction with the organization, availability and quality of dental services conducted a survey of 156 respondents. Developed a questionnaire, which included questions about gender, age of parents; questions that indicated the social status of the respondents evaluated the level of social protection of families who sought medical dental care (the number of children in the families of children with disabilities, family members).

Results: In state of the dental clinic turned the vast number of female parents of 88.8%, male – parents 11.2% and private clinics – women – parents 86%, while the percentage of parents-men was 14%. In public dental clinics among visitors there were more persons over the age of 36 years is 52.5 %, from 26 to 35 years of age and 36.2%. Rarely, the patients with children were people aged 18 to 25 years are 11.2%. Private clinics also prevailed parents aged 36 years and above is 56% and from 26 to 35 years – 42% of 18 to 25 years – 2%. It is obvious that for young parents aged 18 to 25 years old, seeking dental care in private clinics is not available due to a lower level of welfare.

The survey results allowed us to obtain information about marital status and family composition of respondents. Found that among parents who attend public clinics and 46% has a complete family. Full families with children with disabilities make up 6%, full large families – 9%, full families with children with disabilities – 2%, single-parent families make up 20%, single-parent families with disabled children – 9%, part of a large family – 3%, incomplete families with disabled children – 5%. In private clinics the number of complete families was 44%. Full families with disabled children – 11%, full families with many children – 4%, full families with disabled children – 0%.

In addition, studying the composition of the family, we can highlight the socially unprotected group of the population, which includes families with low-income, single-parent families, large families, and families with children with a disability. 2.5% of respondents who applied to public clinics evaluated the material wealth of his family as high, at 78.8% consider material wealth as the average, and 18.8% are low. Of those respondents who had accessed private clinics 2% of the assessed wealth of their family as high, 96% average, 2% of respondents believe that they have a low affluence. It can be noted that at public dental clinics have a higher percentage of visits of the respondents with low income was 18.8%, while private clinics account for only 2% of visits to low-income citizens.

Conclusions: 54% of the families participating in the survey belong to socially vulnerable groups of the population. 42.5% of respondents could not afford to use paid medical services, as this will seriously affect their family budget. Out of 156 respondents, only 23.8% of the children are treated entirely free, others have to pay for dental treatment.

Slynko Y.

INFLUENCE OF LOW PHYSICAL ACTIVITY AT MORPHOFUNCTIONAL STATE IN PERIODONTAL LIGAMENT OF PREGNANT RATS POSTERITY

Research advisor: Prof. Rjabokon E.
Department of Therapeutic Dentistry, Kharkiv National Medical University, Kharkiv, Ukraine

Actuality: In present time are born and becoming adult children whose mothers had inactive mode of living during their pregnancy. In this connection exists the necessity in the profound studying of an influence of mothers hypokinesia on the condition of various organs and systems in their children, including dentoalveolar system.

The aim: Purpose is to study the microstructural features of periodontal ligament in experimental animals, whose mothers were in hypokinesia condition during their gestation.

Materials and methods: Histological, morphometric, and immunohistochemical features of periodontal ligament in three-month-old posterity of WAG rats, whose mothers were having different physical activity during gestation had been studied. Posterity of female rats, which stayed in the cells of a standard size during gestation, were included in the first group (gr.K, n = 27). Posterity of female rats, who during pregnancy stayed in cells with reduced area for possible movement, were included to the second group (gr.GK, n = 25).

Results: Collagen fibers in

periodontal ligament of microslides in gr.K are thin, have sinuous disposition that is check with it's normal structure. Immunohistochemical reaction on type I collagen gives intensive luminescence (0,349±0,012 st.un.opt.den).

In microslides of posterity gr.GK periodontal ligament is very defective that is shows indirect it's infirmity in contrast with control group. In extant areas periodontal ligament fibers looks straight, thin and rarely situated. Immunohistochemical research on type I collagen is an evidence of it's smaller content in periodontal fibers (0,264±0,010 st.un.opt.den) in comparison with gr.K (Rk-gk< 0,05). Also it is necessary to note that in microslides of gr.K are found destruction zones in periodontal ligament even to 1/5 tooth root length. The space between gum and the tooth filled by granulation tissue, infiltrate by neutrophils, macrophages and lymphocytes. Above-mentioned situation is typical for dystophyco-inflammatory diseases in periodontal tissues.

Conclusions: Thus, in female posterity that during their pregnancy was in hypokinesia condition , periodont has depressed morpho-functional activity, that can be one of the starting device in periodontal tissues disease evolution.

Steblianko A., Hudik A.

EXPERIENCE OF PHYTOPREPARATIONS FOR TREATMENT OFACUTE ODONTOGENIC PERIOSTITIS

Research advisor: Prof. Grigorov S.
Department of Maxillofacial and Oral Surgery, Kharkiv National Medical University, Kharkiv, Ukraine

Actuality: The urgent matter of the modern dental practice is to improve the efficiency when treating the inflammatory diseases of oral cavity (IDOC). Medical drugs of plant origin are mainly used in IDOC complex treatment because they do not include chemically synthesized agents with a number of side effects.

The aim was the clinical – laboratory study of phytopreparation efficiency in the form of spray – "Tymsal" ("Herbapol Krakow S.A." company) during the treatment of acute odontogenic periostitis (AOP).

Materials and methods: The "Tymsal" active ingredient is thyme liquid extract with essential oil which includes antibacterial properties of thymol and sage tincture. To investigate the antibacterial activity (AA) by the "pits" method of solid "Tymsal" preparation diluted 1: 2, 1: 4, 1: 8 there were used clinical and test strains Pseudomonas aeruginosa, Proteus penneri, Micrococcus luteus,

Escherichia coli ATCC 25922, Bacillus cereus ATCC 10702, Bacillus subtilis ATCC 6633, Staphylococcus epidermidis 209, Staphylococcus aureus ATCC 25923, Klebsiella oxytoca, Streptococcus agalactiae and Candida albicans, which are representatives of gram-positive and gram-negative microorganisms. We performed the examination, treatment and monitoring of the dynamics among 22 patients aged from 18 to 45 years who were hospitalized for AOP to the maxillofacial department of the Regional Clinical Hospital in Kharkiv. The patients were divided into three groups: group I patients (9 people) used "Tymsal" in a dilution of 1: 5, the group II patients (7 people) – 1:10, and group III (6 people) – 1:20. Patients were treated according to AOP therapy protocol. Immediately after the surgery all patients had the tooth extraction hole filled with swab containing preparation of the corresponding dilutions.

Results: The results demonstrated that the drug "Tymsal" diluted 1: 2 and 1: 4 showed a bactericidal action to all the studied cultures, at a dilution of 1: 8 to some of them the bactericidal activity was reduced.

It is clinically found that even 2 days after the surgery and use of "Tymsal" the patients had no pain and reduced swelling of tissues area in tooth extraction wells. We also marked the beginning of the formation of granulation tissue in all (100%) patients of group I, 86% - group II, 83% - group III. On the 4th day there was an active formation of granulation process in the wells of extracted teeth in all groups of patients (100%). On the 6th day all the parameters of studied traits were 100% among all patients.

Conclusions: Thus, the AOP treatment with the drug "Tymsal" in selected dilutions was rational in all cases.

Volchenko N.

PERIODONTAL TISSUE CONDITION IN 8-YEAR OLD SCHOOLCHILDREN WITH DIFFERENT EDUCATION LOAD

Research advisor: Ass.prof. Volchenko N.
Department of Dentistry, Department of Pediatric Dentistry, Pediatric Oral Surgery and Implantology, Kharkiv National Medical University, Kharkiv, Ukraine

Actuality: Children's health condition is the condition of health of the nation. In view of the above the doctors have been working hard to determine the factors which have an adverse impact on children's health.

The aim was is to investigate the features of periodontal tissue condition in 8-year old schoolchildren in terms of education load character.

Matherials and methods: The research involved 25 children at the age of 8 –years, 13 of them are enrolled in board education program and 12 children are enrolled in general education program. The authors employed index assessment of periodontal tissue condition by CPI.

Results: In 32.5 % and the pupils are enrolled in board education program 53.3 % children are enrolled in general education program of inflammation could not be detected, especially in the second group (= 1.76 , $p < 0.05$). In 60% children of the first group and in 43.3 % children had a second index is defined, quantitative values are the scores from 0.1 to 1.0, which means that these children found the risk of disease periodontal a greater extent in the first group (= 3.65 , $p < 0.01$). The presence of mild inflammation was detected in 7.5% children of the first and 3.3% children of the second group (= 0.78 , $p > 0.05$), the quantitative value of more than 2.1 points in both groups of schoolchildren have been identified, means inflammation of periodontal tissue of moderate and severe were found.

Conclusions: So, as a result the authors obtained data suggesting that the majority of schoolchildren, enrolled in board education program were found to have more signs of periodontal tissue inflammation in comparison to the children enrolled in general education program.

Volkova O.

BIOCHEMICAL INDICATORS OF ORAL FLUID OF PATIENTS WITH CARIES AT ACTION OF LECITHIN-CALCIUM COMPLEX

Research advisor: professor Ryabocon Ye.
Department of Therapeutic Dentistry, Kharkiv National Medical University, Kharkiv, Ukraine

Actuality: Integral part of human health is dental health, which is defined as the state of organs and tissues of oral cavity.

The aim of this study was to examine the influence of complex preparation "Lecithin-2", lecithin on which contains calcium citrate, and as a source of phosphorus biochemical indicators of oral fluid of multiple dental caries.

Materials and methods: Basic groop is 52 patients diagnosed with multiple dental caries, which is set on the basis of clinical examination. Patient's main groups except the basic therapy the first day of the survey were receiving the drug "Lecithin-2" manufactured for thirty days, three times a day for half an hour before meals and one tablet to complete resolve in the oral cavity. Patients in the first day of the survey, and then a month later to collect unstimulated saliva. In the supernatant was determined the concentration MDA, total proteolytic activity OPA, the activity of catalase, urease and lysozyme, as well as the concentration of calcium.

Results: As shown by studies of two inflammatory markers (MDA, and UPA) UPA only significantly increased in patients with caries and also significantly returned to normal after treatment, "Lecithin-2" (OPA in the control -3,00 ± 0,21, to medication – 4,05 ± 0,39 nkat / L, $p < 0.05$, after 1 month – 2,91 ± 0,29 nkat / L, $p < 0.05$). In patients with caries significantly reduced in oral fluid concentrations of calcium, which after treatment returned to normal, indicating that the restoration of remineralizing the function of saliva (calcium in the control -0,92 ± 0,04 mmol / l, before the drug – 0,68 ± 0.04 mmol / l, $p < 0.001$, after 1 month – 0,88 ± 0,03 mmol / l, $p1 < 0.01$). More than 2-fold reduced activity of one of the antioxidant enzymes catalase, and after a month of taking the course "Lecithin-2", this rate was almost back to normal (catalase, in control – 0,305 ± 0,033 mAbs / l, before the drug – 0,14 ± 0.01 mAbs / l, $p < 0.001$, after 1 month – 0,27 ± 0,053 mAbs / l, $p1 < 0.05$).

Conclusions: As a result of our studies found that patients with multiple dental caries observed phenomenon of disbioz of the oral cavity for signs of inflammation, reduction of the protective antioxidant system and decrease the concentration of calcium in oral fluid. Admission during the month

lecithin-calcium complex completely eliminated the phenomenon of dysbiosis and inflammation, increased to normal levels of antioxidant-prooxidant system and the concentration of calcium in oral fluid.

Voloshan O.

TREATMENTS FEATURES OF PATIENTS WITH ODONTOGENIC MAXILLARY SINUSITIS OF FUNGAL ORIGIN

Research Advisor: PhD., Associated Professor Demyanyk D.
Department of Dental and Maxillofacial Surgery, Kharkiv National Medical University, Kharkiv, Ukraine

Actuality: The choice of tactic of treatment and diagnostic difficulties ofpatients with maxillary odontogenic sinusitis are still the relevant issue inmaxillofacial surgery (Teemofev A.A. (2011) , Zaprudena M.V. (1984), Neupokoev N.N. (1996), Morokhoiv V.I (2009). The difficulty in diagnosis , uncontrolled and inadequate designation of antibiotic , failure in conservative treatment of odontogenic sinusitis , creates conditions for the growth of microorganism ,representing Saprophytic flora , increasing virulence of opportunistic bacteria . Recently in literature there have been researches that discuss the possibility of developing chronic sinusitis on the background of fungal sinus lesions caused by genus Aspergillus .Such researches are rare; therefore survey of literature that carried out by us showed the expediency of further study of clinical variety and difficulties of differential diagnostics during the treatment of patients with odontogenous maxillary sinusitis with the prevalence of the fungus flora.

The aim 1**)**to develop common principles in the diagnosis and tactics of the treatment process and rehabilitation period of patients with odontogenic maxillary sinusitis with a prevalence of fungal flora, 2) to study the most common mistakes in diagnosis and tactics of the treatment of patients with odontogenic maxillary sinusitis with the predominance of fungus flora, 3) to develop the algorithm level of surgical intervention in identifying odontogenic maxillary sinusitis with a prevalence of fungal flora.

Materials and methods: We have observed 87 patients with odontogenic sinusitis were treated in the dental department in Kharkov regional hospital for the period 2013-2016, went through clinical, laboratory and radiological examinations (including a panoramic radiography and cone tomography to establish the causes of odontogenic).

At the time of treatment in department, 70% of patients complained of unilateral nasal congestion, pain in the causative tooth, swelling and hyperemia of the gums, discharge from the nasal passage. All patients underwent a complex treatment of odontogenic maxillary sinusitis, according to the quality standards of the Ministry of Health of Ukraine in dental department. We conducted a radical cysto-sinusotomy (60) and cysto-naso-sinustomy (27) (depending on the clinical picture) with bone reconstruction of defects and plastic closure of tissue.

Results: The results analysis of statistical data showed that for a specified period of time in dental department 87 patients were treated , including 10 patients with odontogenic sinusitis with a prevalence of fungal flora.

Conclusions of postoperative material showed that what revealed as «foreign matters» appeared to be Aspergillus niger which stimulated by the presence of filling material in maxillary sinus.

Yakovleva D. U.

MAXILLO-FACIAL SCHWANNOMAS: CLINIC, DIAGNOSTIC AND TREATMENT

Research advisor: Candidate of Medical Sciences Rak A. V.
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Actuality: Schwannoma is a benign tumor that originates from the Schwann cells of the peripheral nerves. Approximately 25-45% schwannomas are seen in the head and neck region and found rarely in the oral cavity, about 1%, affecting the tongue, the buccal mucosa, the palate, the base of the mouth.

The aim to study the features of clinic, diagnosis and treatment of maxillofacial schwannomas.

Materials and methods: The analysis of literary sources and one clinical case was performed. Patient B applied to the clinic of surgical dentistry and maxillofacial surgery KhNMU for making a diagnosis. He complained of a painless mass that had been enlarging slowly in the right parotid gland for the last two years. The patient didn't have any lymphadenopathy in the supraclavicular, anterior and posterior region of the neck. Laboratory research included ultrasonography and histopathologic examination. Slides were stained with hematoxylin and eosin, pikrofuksin by Van Gieson, the CHIC-reaction was conducted.

Results: Ultrasonography showed a hypoechoic mass in size, with irregular shape, clear boundary, without calcification. The histopathologic analysis revealed the

majority of Antoni B pattern for the whole specimen. This variant is less cellular and less organized, representing degenerated Antoni A areas. It is composed of hypocellular myxoid matrix punctuated by microcysties, inflammatory cells and delicate collagen fibers. The tumor vessels are sharply thickened due to fibrosis and hyalinosis. The volume of operative intervention depends on several factors, like extent and biological behavior of the tumor, preoperative facial nerve function according to the House-Brackmann grade, and the location in relation to the intraparotid facial nerve main trunk. In present case the superficial parotidectomy with the following enucleation of the neoformation was preferred. Other techniques, such as partial resection, should be avoided because of the possibility of cause neural damages.

Conclusions: The preoperative diagnosis of schwannoma is always difficult. That is why, for the facial tumor, surgeons often have to convert intraoperative intervention. Additional methods of research play a crucial role in the final diagnosis.

Yarovenko L.

SOCIOLOGICAL SURVEU OF THE STUDENTS WITH THE PROGNATHIC OCCLUSION OF THE CITY LVIV

Research advisor: Bezvushko E., Dr. of Med. Sciences

Children stomatology department, Lviv National Medical university after Danylo Halytskyy, Lviv, Ukraine

Relevance: According to the literature, teeth anomalies take the third place of all dental diseases in the world today. The prevalence of the prognathic occlusion (PO) ranges from 16,2% to 23,93%.

Objectives: To determine the degree of emotional state of school children and adolescents with and without the dental-jaw anomalies and with the PO according to a questionnaire survey. Conduct a comparative description.

Materials and Methods: For conducting our research 750 pupils aged 9 to 17 of secondary schools №65, 67, gymnasiums "Hrono", "Oriyana", "Sykhivska" in Lviv and patients of Medical Dentistry of Lviv National Medical center after Danylo Halytskyy were questioned. All respondents were divided into groups – the main group - patients with PO (150 - students) and the control one (600 students). The surveyed students were also divided into groups regarding to the age: the

first group - 9-10 years old, the second group - 12-13 years old and the third one- 16-17 years old.

The results: Thus, when exploring the question "How important is your health to you?"we marked the highest possible interest. The children 9-10y. (34%) and 12-13y. (40%) with the PO assessed the state of their health the most carefully and the children in the control group:9-10y. (23,3-53,3%) and 28-50,6% of children 12-13y.in accordance.

For the question "How much are you satisfied with your health?" the main group of the respondents of all ages mostly said they were satisfied with their health (50-64%). While the control group of the respondents more carefully evaluate their health with the time: aged 9-10y. - more than half (58,6%) - quite satisfied with their health, aged 12-13y. - 50% and aged 16-17y. only a third is satisfied (36,6%). Hence, the importance of health for pupils, who were questionned is a priority issue in both groups and doesn't depend on the age.

To the question "How do you assess the state of your teeth and gums?" the majority of pupils in the control group (45,3-63,3%) rated it as a good one, but only one third of the pupils from the main group was satisfied with their teeth and gums 24-44%.

Therefore, to the question "Are you satisfied with the appearance of your teeth?" the main group of pupils of all ages responded not happy with 38-58% respectively, whereas in the control group satisfied with most of the respondents, satisfied with the appearance of their teeth is 56,6-85,3%.

Although interesting is the fact that it does not affect the desire to smile. Thus, the pupils of both groups smile free: 82,6-91,3% and 58-84% respectively.

Conclusion: The analysis of the results of the questionnaire survey shows a direct relationship between the dental status and the emotional state of the patient, which certainly affects the quality of life.

Yeliseyeva O.

ORAL CAVITY IMMUNITY CHARACTERISTICS IN THE PATIENTS ORAL LICHEN PLANUS

Research Advisor: DM. Sokolova I.
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Actuality: A firm tendency of frequent combination of chronicle generalized periodontitis (CGP) and oral lichen planus (OLP) has been observed recently and known treatment measures often give insufficient therapeutic effect.

The aim: The object of the research is to study the state of the local oral cavity immunity of the patients with generalized periodontitis together with oral lichen planus.

Materials and methods: 52 patients who were divided into 3 groups took part in the research. Group 1 included patients with intact periodontium. Group 2 included patients with CGP together with OLP and without injury of the oral cavity mucous membrane (OCMM). Group 3 included patients with CGP together with OLP and OCMM injury. Groups 2 and 3 were subdivided into 2a and 3a (those patients had standard treatment: rinser "Perio-AID" 0.12%, toothpaste "Lacalut active", and patients of subgroup 3a also had sea-buckthorn oil application on lesion focuses) and 2b and 3b (those patients had the worked out therapy: rinser "Lizomukoid", toothpaste "Lakalut active", pills "Lisobakt", patients of subgroup 3b also had lysozyme containing films application). Systemic treatment of OLP was also conducted (after a specialists' advice).

Results: The reduction of the lysozyme and beta-lysine level, C3 fragment and also sIgA level in the oral cavity liquid has been observed. After the treatment in subgroups 2b and 3b normalization of the above mentioned characteristics level in the oral cavity liquid has been observed during all the treatment period. In groups 2a and 3a there weren't any significant changes of these characteristics ($p>0,05$).

Conclusions: Successful treatment of the patients with CGP together with OLP according to the worked out scheme is accompanied by restoration of the local non-specific immunity characteristics of the oral cavity such as lysozyme and beta-lysine activity, C3 fragment complement concentration, and also sIgA level normalization just after the end of the course of treatment and in 3 months after the therapy.

Zaarour A., Rabih S.

ESTIMATION OF ARTICULATION OF ORGANS OF HUMAN SPEECH SYSTEM IN A DIRECTION OF EXTENDS THE POSSIBILITY OF INDIVIDUAL CORRECTION OF TREATMENT AND PREVENTIVE MEASURES IN PEDIATRIC DENTISTRY

Research advisor: Kuzina V., Assoc. Prof.; Khmiz T., Assoc. Prof.
Department of Pediatric Dentistry, Pediatric Maxillofacial Surgery and Implantology, Kharkiv National Medical University, Kharkiv, Ukraine

Actuality: Prevention of dentofacial deformities – an important link in pediatric dentistry. Timely and correct prevention allows to avoid or reduce the time of wearing of complex orthodontic appliances, and promotes the self-elimination of certain anomalies during childhood.

The aim to study the proportion of persons in carriers of foreign languages with different articulation characteristic.

Materials and methods: The questioning of foreign students, natives of the Asian region, in order to establish the type, duration and frequency of use of language in childhood was conducted. Surveyed were asked to tell about themselves in their native language. The articulation movements of the tongue and lips were recorded using a video at the same time. Both, extraoral examination of the maxillofacial region with an emphasis on the presence of the facial features and intraoral for the purpose of recording the presence of the bite pathology and its kind were conducted.

Results: The 25 persons were selected, according to the results of the survey. They pointed to the use of only one language within the first 10-15 years of life that corresponds to the period of active formation and growth of the maxillofacial region. Everyone had bite pathology, with typical facial features and a tendency to uniformity.

Conclusions: The obtained data should be taken into account during the inspection of patients, whose mother tongue or the language in which the patient says most of his life, is characterized by specific articulation, and differ from the Ukrainian or Russian. It extends the possibility of individual correction of treatment and preventive measures in pediatric dentistry.

Mikulinska – Rudich Y.N., Mys V.O.

EXPIRIENCE IN THE USE OF FLOWABLE COMPOSITES FILTEK BULK FILL AND SDR FOR SEALING OF UPPER MOLARS

Research advisor: M.D., Doctor of Medical Sciences, Professor Nazaryn R.S.
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Actuality: When working with the kids dentist is constantly faced with a number of problems that are associated with psychological and emotional state of the child's specific behavior, inherent in childhood.

The aim to compare the efficacy of flowable composite materials for filling cavities 1 class in the maxillary molars in children 12 to 14 years.

Materials and methods: In children receiving treatment was made the upper permanent molars (42) for chronic middle caries company materials 3M ESPE Filtek™ Bulk Fill and Dentsplay SDR. Parents were informed about the composition and the instructions for use of materials.

Results: One month after sealing as a result of an objective examination of both the first and second groups studied was determined good marginal seal seals during the probe along the border of the tooth \ enamel probe slid smoothly without delays, saving reduced when filling the anatomical shape of the tooth, which indirectly testifies reducing the polymerization shrinkage stress and the minimum basic materials for replacement of dentin. However, in the first group, which was conducted 3M ESPE Filtek ™ Bulk Fill Treatment of material decay was observed color mismatch seal / enamel in 13 of 21 the treated tooth.

Conclusions: Based on the results of clinical studies we conducted among children 12 to 14 years who underwent dental filling flowable composite material Dentsplay company SDR and flowable composite material Filtek ™ Bulk Fill 3M ESPE company may be concluded that a satisfactory adaptation of the materials to the cavity walls, convenience and ease of use, large depth polymerization that eliminates the need for making layered composite material in the cavity.

INFECTIOUS DISEASES

Adeyemi A.A., Bondarenko A.V.

DIAGNOSTIC APPROACHES IN TICK-BORNE DISEASES

Research advisor: Bondarenko A.V., Doctor of Medical Sciences, Professor Department of Infectious Diseases, Kharkiv National Medical University, Kharkiv, Ukraine

Actuality. Aetiological diagnosis of tick-borne diseases is often difficult and interpretation of laboratory data is very important in order to establish the diagnosis. Since many patients rarely have the tick in hand, a definitive diagnosis thus requires more specialized methods.

The aim. To help clinicians in diagnosing infections transmitted by tick bites and to provide guideline based on the results of our collaboration with Laboratory of New and Little Explored Infections (Mechnikov Institute of Microbiology and Immunology).

Materials and methods. Haemolymph smear, peripheral blood smear, immunological tests for antigens and antibodies – indirect immunofluorescent assay (IFA), molecular genetic analysis – polymerase chain reaction (PCR).

Results. Our investigations, showed that, if in some rare cases, the patient is lucky to have the tick, it would be possible to perform a haemolymph smear, make a potential diagnosis, and start proper prophylaxis.

In Babesiosis the gold standard is a thick and thin blood smear to detect small “Maltese cross” inclusion bodies in RBC’s. PCR and IFA, are positive within 2-4 weeks after the onset. In Anaplasmosis and Ehrlichiosis IFA and PCR should be used within 7-10 days after the onset of symptoms and should be repeated in 2-4 weeks later to reduce the risk of false negative. In Borreliosis, patients with symptoms greater than 1 month, testing for only IgG should be done, as IgM alone is insufficient for the diagnosis. If the result is positive or equivocal it is followed by a Western Blot for confirmation. In Bartonellosis, IFA for both IgM and IgG antibodies must be used. However, cross reactions may occur with antibodies to Coxiella, Chlamydia, and Rickettsia. Western Blot tests appear to have greater specificity. Bartonella organisms can sometimes be visualized by immunohistochemicall staining. The DNA of various Bartonella species can also be amplified by PCR in blood, spinal fluid and tissue.

Conclusion. The various methods for diagnosing tick borne diseases have varying sensitivities and specificities, especially when the time of sample collection is considered. The most important diagnostic tests have been described taking into consideration factors like the seroconversion time,

immunocompromised status of patients and number of tick borne parasites in the organism. It is often difficult to differentiate between some of these diseases, thus a lot of importance falls on the diagnostic tests.

Antsyferova N., Solmennyk A., Bondar A., Sokhan A.,

Penkov D, Perelomov V.

MODERN UNDERSTANDING OF THE CLINICAL PICTURE THE OF CHRONIC HCV-INFECTION

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Modern concepts of clinical manifestations of chronic HCV-infection are not limited to liver lesion. Many scientists being discussed the role of the virus in the development of a wide spectrum of pathologies: hematological and dermatological diseases, diabetes, kidney disease, etc. According to various studies, their frequency has significant differences in different countries from 38 to 74%.

The aim of the study – to determine the incidence of extrahepatic symptoms in the clinical picture of chronic HCV infection at this stage.

Object and methods. The study involved of 206 patients with chronic hepatitis C. Along with the confirmation of the etiologic diagnosis the program of general clinical examination included assessment of complaints and anamnestic data, physical examination, study of the functional state of the liver, as well as consultations of interfacing specialists.

The results. First became aware of HCV infection more than 6o% patients at the stage of chronic process. Almost a quarter (24.75%) patients suffered from arthritis, 2.44% - allergic dermatitis, 1.45% - hypochromic anemia, 0.48% - psoriasis for several years before diagnosis. Repeated treatment of these conditions in a specialized hospital does not have a positive effect. Analysis of the clinical data of patients in an infectious hospital revealed the prevalence of gepatomegalia (100%), asteno-vegetative (75.24%) and dyspeptic (69.9%) syndromes. Extrahepatic manifestations (arthralgia, allergic dermatitis, anemia, psoriasis) 29.12% were observed in patients. Against the background of combined antiviral therapy had complete or partial regression the studied symptoms.

The conclusion. At the present

stage of chronic infection is characterized by a low specific the weight of extrahepatic pathology in the general structure of the disease.

Augusto Maurelio Vicente

ZIKA VIRUS, DENGUE AND CHIKUNGUNYA IN BRAZIL: SYMPTOMS, DIAGNOSIS

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Actuality. Dengue, chikungunya fever and Zika viruses are three diseases that increase in number of cases and severity and that has the same transmitter: Aedes aegypti.

The aim. One of the main challenges of health agencies in obtaining reliable data on the cases of the disease has been the difficulty of diagnosis, since the symptoms are very similar and can often lead to confusion with other viruses.

Results. The four dengue serotypes cause the same clinical manifestation, that may include: high fever with severe headaches, severe bone and muscle pain; fatigue, reddish spots, diarrhea, vomiting, cough, and nasal congestion, but can progress to diffuse inflammation of blood vessels and thrombocytopenia. Symptoms of Zika virus manifest in a mild way. In the first 24 hours the rash appears and cause severe itching, fever is lower, conjunctival hyperemia, muscle pain, headache and back pain, sore throat, coughing, swelling in the body and vomiting. A relationship between the Zika virus and microcephaly was confirmed. The severe pain in all joints especially on fingers, wrists and on the palms of the hands, ankles and feet are the main clinical symptoms of chikungunya.

. To establish whether the patient is with Zika, dengue or chikungunya, in addition to analyzing the symptoms, the doctor may order tests to confirm the diagnosis. Dengue confirmation can be made through serological tests ELISA, RT-PCR, or the virus isolation in cell culture. It is also antigenic detection technique NS1 (nonstructural glycoprotein 1), simpler and cheaper than PCR, results in 48 hours (useful for samples up to the tenth day of disease). In the case of chikungunya, it is also possible to test for serology in search of the antibody, but Zika has no test available for serology. Private laboratories are seeking genetic material testing (PCR) for Zika and chikungunya. However, these tests can only be applied until the fifth day after the onset of symptoms to the Zika virus and until

the tenth day to chikungunya, since after that the virus is no longer on then organism is not detected by the genetic material test (PCR). A new technology, NAT Kit will enable diagnosis via the identification of the genetic material, simultaneously the three diseases: chikungunya, dengue fever and Zika virus. Currently, the diagnosis of Zika virus is carried out by RT-PCR in real time, which identifies the presence of genetic material of the virus in the sample. For chikungunya, the test involves a technique called immunochromatography, which indicates the presence of antibodies in the blood. Two methods for serology test to detect Zika virus have already developed: the immunofluorescence assay and ELISA. The immunofluorescence test is able to detect the most common flavivirus and arboviruses: the four serotypes of chikungunya, dengue and Zika.

Conclusions. Thus, laboratory methods when applied well known are important to support the work of the physician and should be considered seriously in order to avoid errors in treatment.

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CASE OF PLASMODIUM OVALE MALARIA WITH LONG INCUBATION PERIOD

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Actuality. Early and accurate diagnosis of malaria is essential for effective disease management and malaria surveillance. High-quality malaria diagnosis is important in all settings as misdiagnosis can result in significant morbidity and mortality (WHO).

The aim to optimize the diagnostics of malaria in nonendemic countries for this disease.

Materials and methods: analysis of the patient's case history, who was hospitalized to the Kharkiv Regional Clinical Hospital of Infectious Diseases (KRCHID), was conducted.

Results. Patient M., 22 years, was admitted to the KRCHID on the 5th day of disease with complaints of fever up to 38°C, weakness and headache. It was known from anamnesis that 5 days ago in the evening he felt chills, but did not measure body temperature. He took paracetamolum, after that patient noticed a marked sweating and condition got better. During the following days he felt satisfactory. On the 3rd and the 5th days of illness chills, rise in temperature up to 38,5-39ºC with following sweating was observed. From the epidemiological anamnesis: patient came to Ukraine

from Cameroon (Africa) about a year ago; lives in apartment; denies any contact with infectious patients. From the anamnesis of life it was known that in Cameroon he had malaria many times (the last one – 1,5 years ago; he didn't know neither species that caused the disease nor treatment he was done). On examination: general condition of moderate severity, body temperature is 38,5°C. The skin is of normal color, without rash. The sclera are subicteric. The mucosa of the oropharynx is slightly hyperemic. Other organs and systems – without pathology. The preliminary diagnosis: acute respiratory infection? Viral hepatitis? In the blood test – normocytosis (leu – 4,8×109/l), monocytosis – 15%. In liver function test – moderate cytolytic syndrome (ALT – 2,44 mmol/l). Parasitoscopy: Pl. ovale was revealed; parasitemia level – 5220/µl. Final diagnosis: Malaria, caused by Pl. ovale, of moderate severity. The difficulty of diagnostics have resulted from the fact, that patient was in an endemic area about 1 year ago (the incubation period in most cases of malaria varies from 7 to 30 days) that had led to reduced clinical suspicion. In case of Pl. vivax and Pl. ovale malaria there is possibility of late relapces and in rare cases – of long incubation period (if patient mainly was infected by dormant generation of parasites).

Conclusions. 1. There must be epidemiological and clinical suspicion for malaria by doctors due to growing migration of people and international travelling to African and Asian countries. 2. Considering the possibility of primary Pl. ovale latency and long incubation period (about 1 year) of disease, tests for malaria should be done for all feverish patients who had been in malaria-endemic regions.

Elkosh Mohamed Moneir

STUDY OF ANTIBACTERIAL ACTIVITY OF COMBINATIONS OF TEA TREE ESSENTIAL OIL WITH ANTIBIOTICS AGAINST OPPORTUNISTIC MICROORGANISMS IN VITRO

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Actuality. Due to absence of a proper antibiotic policy or non-adherence to it firmly, common strains of bacteria develop new mechanisms of resistance to widely used antimicrobial agents which are used for many years. These strains are still increasing in number by the time. The resistance has been observed in both Gram-positive and Gram-negative bacteria isolated from specimens of patients with community-acquired and hospital-acquired (nosocomial) infections.

A new revolution in the field of combating antibiotic resistance is the development of new pharmacological regimens by using combination therapy of conventional antibiotics with essential oils as sort of phytopharmaceuticals. This combination therapy exhibits efficacy even with plasmid-conferred multidrug resistant bacteria.

The aim of our research was to investigate synergistic outcome between the tea tree essential oil (Melaleuca alternifolia) and antibiotics against facultative anaerobic bacteria such as standard strains Staphylococcus aureus ATCC 25923, Staphylococcus epidermidis ATCC 14990, Escherichia coli ATCC 25922 and Klebsiella pneumoniae ATCC 5505.

Materials and methods: Antibacterial activity of the tea tree essential oil and antibiotics was studed by disc diffusion test according to recommendations of the International Committee of Clinical Laboratory Standards (NCCLS, 2002).

Results: The tea tree essential oil was dissolved in ethanol and introduced into melted and cooled meat pepton agar at a concentration of 70 mcg/ml or 0,007 wolume %. Suspension of microorganisms (microbial load 2•109 CFU/ml) was added on the surface of cooled agar then standard paper discs with antibiotics were placed. Inoculated Petri dishes were incubated in an incubator at 370 C for 24 hours. Record of the results was carried out by the diameter of the zones of growth inhibition around the discs.

Synergistic effects of the tea tree essential oil were demonstrated in combination with doxycycline, ceftriaxon, cefoperason and ciprofloxacin against both Gram-positive and Gram-negative bacteria. Besides that the tea tree essential oil enhanced the azithromycin, cefuroxim and clindamycin activity against S. aureus. Doxycyclin and

ofloxacin were more effective in combination with the tea tree essential oil against K. pneumoniae. Essential oil also potentiates the effect of cefotaxime and ofloxacin against E.coli.

Conclusions: Synergistic effect of the tea tree essential oil with antibiotics decreases the minimum effective dose of antibiotics in the treatment of infections that reduces the adverse effects of antibiotics. For continuation of these promising investigations we need more studies about molecular basis of synergistic interactions to understand its mechanism of action more and more.

Fatianova F., Vinokurova O.

THE DYNAMICS OF INDEXES OF LIPID METABOLISM FOR THE TREATMENT PATIENTS WITH ACUTE HEPATITIS B

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Actuality. According to WHO data about 2 billion people in the world are infected with hepatitis B. The relevance of HBV is determined by the fact that currently there are no specific highly effective methods of treatment. Nowadays the study of lipid metabolism during viral liver diseases is of considerable interest.

The Aim of work was the study of the main indicators of lipid metabolism in the serum of patients with acute hepatitis B during different methods of treatment.

Matherials and methods. We examined 140 patients with acute viral hepatitis B of the age from 16 to 62 years old. The diagnosis of acute hepatitis B was verified using the methods of enzyme-linked immunosorbent analysis and polymerase chain reaction. For the purpose of establishing the state of lipid metabolism among patients with hepatitis B we determined the content of non-esterified fatty acid, prostaglandins in the serum with gaschromatography method, and the level of total lipids, cholesterol, β-lipoprotein, triglycerides(conventional methods).

Results. We studied indicators of lipid metabolism with regard to therapy (defined by its content in blood serum before and after treatment). 1 group consisted of 42 patients with acute hepatitis B who received basic therapy. Group 2 consisted of 58 patients with acute hepatitis b, for which in complex therapy Erbisol was used. It is revealed that in the group of patients where the medicine "Erbisol" was used in comparison to the group of

patients who received basic therapy, there was faster leveling of icteric syndrome, headache, the duration of the febrile period was much less, and there were less pain (epigastric). It is revealed that (in comparison with their content before treatment) the content of biochemical parameters fell faster to control values under the influence of Erbisol – AlAt - 87.9%, bilirubin - at 78.7% (under the action of Galstena – by 83.6% and 65.4% respectively and the basic treatment – of 66.1% and 66.2% respectively). The duration of subsequent clinical manifestations of disease did not differ significantly for patients of all three representative groups (P>0.05): headache, insomnia, dry mouth, nausea, vomiting, pain and heaviness in the right hypochondrium, aholic stool, constipation, diarrhea.

Conclusions. Using Erbisol contributes to more rapid decrease of the content of β-lipoprotein, triglycerides, prostaglandin F2, prostaglandin E1, prostacyclin, thromboxane B2, and Using Galstena contributes to more rapid decrease of total lipids, total cholesterol, prostaglandin F1, normalization of the level of most fatty acids.

Ghosh Somdipa

CLINICAL PRESENTATION OF TB AMONG PATIENTS WHO HAVE RISK FACTORS OF TB

Research advisor: Choporova Aleksandra PhD
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Department of Phthisiology and Pulmonology

Actuality: There are estimated 8-10 million new cases of TB each year worldwide.It remains a global emergency and continues to kill 1.4 million people every year.CO-INFECTION WITH HIV:HIV infection increases the likelihood that new infection with M.tuberculosis due to immune supression will progress rapidly to TB disease among HIV-infected individuals, lifetime risk of developing active TB is 50%,compared to 5-10% in persons who are not HIV-infected.SMOKING:more than 20 cigarettes a day increases the risk of TB by 2 or 4 times.Smokers doubles the risk that people who have been successfully treated for TB will develop TB again, term called 'RECURRENT TB'. DIABETES:directly impairs the innate and adaptive immune responses, thereby accelerating the proliferation of TB.

The aim: The aim of the study was to demonstrate that patients with certain risk factors like HIV, smoking, drinking and diabetes are more prone to develop TB. **Materials and methods**:15 patients suffering

from different forms of TB, like patients with Primary form of TB, Secondary form with disseminated TB and miliary TB admitted to department of phthisiology and pulmonology were under my observation and were chosen for further analysis.

Results: After investigation I found out that 6 of the patients were regular smokers and used to drink very often and were also diabetic. And 4 patients were infected with HIV. After treatment it was seen that 33% of patients who were not infected with HIV, nor they were diabetic and neither they smoke nor drink were having fast recovery.• In was seen in 40% of patients who were having diabetes and were regular smokers and use to drink very often that the treatment was taking time as compared to other patients. In 27% HIV infected patients improvement was least, very low recovery was seen,as compared to other patients,treatment was ineffective or slow because of presence of HIV infection.

Conclusion: This shows us that patients with diabetes and those who are regular smokers and drinks a lot are more prone to TB proving that these are risk factors of TB due to which treatment was taking time.We can also say that TB patients having CO-INFECTION with HIV is the most dangerous risk factor of TB as we saw that treatment's effectiveness is very low. To decrease the risk of TB, people who regularly smokes or drinks or having diabetes or are infected by HIV should be under observation for TB. Flurography should be done regularly along with x-ray, CBC, lab test once in a year atleast to prevent severe form of TB because PREVENTION IS BETTER THAN CURE.

Guz Elena, Al Bhadili Laith Mousen, Mabroad Aws Falah

CLINICAL SIGNIFICANCE OF PROSTAGLANDINS IN FORM OF COURSES OF BACTERIAL INTESTINAL INFECTIONS IN CHILDREN

Research advisor: Dr.PhD Zharkova Tetyana
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Department of children infection disiases

Actuality: Acute intestinal infections (II) are one of the most frequent infectious diseases for the children. Certainly, that clinical sings of any disease, including II, is determined by the reaction of mediators of inflammation, particular – interleukins and prostaglandins (PG). The PG are able to disturbs the dynamic balance of antioxidant activity of lipids and antioxidant system, change a peristalsis to the intestinal, vascular tone. However there are only single scientific works to the study of PG in forming of clinical variant of II.

The aim: to set the value of prostaglandin (PG)E and F2α in forming of clinical variant of intestinal infections at children of early age

Materials and methods: We observed 198 children (1–3 years) with II, of which 131 - the smooth-like (SL) and 67-wavy-like (WL) course of the disease (98-shigellosis, 67-salmonellosis, 33–esherihiosis). The 25 healthy children were control group. All patients determined the levels of PGE and PGF2α in the blood, on the 1-3 day after onset of the disease, then on 6-7 day and in case of WLII on 12-14 day. The levels of PG of serum were investigated by Elisa test.

Results: We found that all patients had increased levels of PGE and PGF2α in serum during disease that matches of activity inflammatory reaction of organism. In an acute period in patients with WLII the level of PGE (211,93±6,86) of blood is considerably higher and PGF2α (65,69±2,07 pkg/ml) - below, than for children with SLII (PGE 206,38±4,79 pkg/ml, PGF2α 74,73±3,74 pkg/ml). We consider that levels of PG of blood can be used as prognostic criteria of course of II on the early stage. In our opinion, exactly high level of PGE in a acute period of patients with WLII and weak activating of PGF2α in blood is cause of development of more expressive inflammatory reaction in intestinal. This fact was confirmed by changes in caprological test.

On the 6 – 7 day we registered decline of levels of PGE and increase - PGF2α in the serum for all patients, but for SLII was lowest level of PGE and highest level of PGF2α in comparison with WLII. In our opinion, this fact shows to unfinished inflammatory reaction in the organism of children, this is impotent for stages rehabilitation and clinical

supervision of convalescents. At the period of early convalescent on 12-14 day of the diseases the levels of PG in patients with WLII were approached to the level of patients with SLII, but the time difference is 5-7 days.

Conclusion: In the acute period of II the levels of PG were increase, that conform the active phase of the system inflammatory reaction of organism. Determination of concentrate of PG in blood of patients with II at the early stages and at the course of illness allows forecasting the variant of course. That will allow prescribing therapeutic tactics of patients more objectively. The high levels of PG in the convalescent period show to the unfinished inflammatory reaction in the organism. This fact we mast consider on the stages of further rehabilitation.

Ilyukha S., Parkhomenko J.

THYROID STATE IN CASES OF PULMONARY TUBERCULOSIS

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Actuality. An epidemic situation on tuberculosis (TB) in Ukraine is characterized by the high level of relapses of the disease. Because TB is immunodeficient disease, and thyroid participates in forming of immunity, we made comparative study of thyroid state in new cases of TB and cases previously treated.

Aim. To study a thyroid state in patients with new cases of tuberculosis and previously treated cases.

Matherials and methods. in 60 patients (30 persons with new cases of tuberculosis and 30 persons previously treated) echostructure of thyroid is studied, and also the levels of free thyroxine, thyroid stimulating hormone are measured by immune-enzyme method in a blood stream.

Results. Pathology of echostructure of thyroid is diagnosed in 53, (33%) of new cases of tuberculosis and in 60 (66%) of cases previously treated. The level of free thyroxine was significantly lower and level of thyroid stimulating hormone was significantly higher in persons previously treated comparing with new cases. The percentage of autoimmune thyroiditis and the percentage subclinical hypothyroidism were higher in persons previously treated comparing with new cases.

Conclusions. The changes found is the ground for recommendation to screen thyroid

state in persons with tuberculosis relapsed and treatment failure.

K.V. Iurko, A.O. Solomennik, N.I. Khrystenko

THE FEATURES OF LIPID METABOLISM IN PATIENTS WITH CHRONIC HEPATITS C

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Actuality: 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. Among the factors indicative of the progression of chronic hepatitis C, the leading position belongs to hepatic steatosis, which may be virus-induced, and metabolic. HCV-infection is one of the major risk factors for metabolic disorders.

Materials and methods. The content of lipid metabolism was determined in 36 patients with chronic hepatitis C. 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-colorimetric method with diagnostic kits from the company "SpaynLab" (Spain). The content of Very Low Density Lipoproteins (VLDL) in blood serum was determined by the formula: VLDL=TG/5. Atherogenic coefficient (AC) was calculated by the formula: AC=(TC-HDL)/HDL. Statistical analysis was performed using the software package «Statistica for Windows», 8.0.

Results. 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. TC in patients with chronic hepatitis C had no significant difference with that of the control group in patients. The patients studied, compared to the control, there was a significant increase of triglyceride, atherogenic coefficient, LDL, VLDL and reduction HDL ($p<0.001$). In carrying out the correlation analysis in patients with chronic hepatitis C, a strong direct relationship between the level of CD4+ cells and the degree of increase of triglyceride ($r = 0,64$, $p <0.001$) was established.

Conclusions. In patients with chronic hepatitis C significant increases in serum triglyceride, atherogenic coefficient, LDL, VLDL and HDL were observed. This indicates a violation of lipid metabolism in studied patients.

Egwakhide Adams, Zainab Akanni, Sorokina Olga

A CURRENT REVIEW OF EBOLA HEMORRHAGIC FEVER

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Actuality. Ebola hemorrhagic fever (EHF) is an acute viral syndrome that presents with fever and an ensuing bleeding diathesis that is marked by high mortality in human and nonhuman primates. Fatality rates are between 50% and 100%. Due to its lethal nature, this filovirus is classified as a biological class 4 pathogen.

Results. Pteropodidae families of fruit bats are thought to be the natural reservoirs of Ebola virus (EV), humans can be infected by EV by direct contact with blood and body fluids of infected animals such as apes, gorillas, fruit bats, and monkeys there is no evidence that pet cat and dogs, mosquitoes, or other insects can transmit EV. Human-to-human transmission occurs via direct contact with the blood, organs, secretion, and other bodily fluids (such as urine, faeces, semen, breast milk, mucus, vomit) of an infected person and via surface and materials contaminated with these fluids. Incubation ranges from 2 to 21 days. Patients who are able to mount an immune response to the EV will begin to recover in 7 to 10 days. EV usually reaches detectable levels in blood after 3 days of symptoms. A negative test before this does not rule out Ebola virus disease (EVD). IgM enzyme-linked immunosorbent assay, antigen-capture, polymerase chain reaction, and virus isolation are the diagnostic tests available to diagnose a patient who presents at a health facility within a few days of showing symptoms. Supportive management of infected patients is the primary method of treatment, with particular attention to maintenance of hydration, circulatory volume, blood pressure, and the provision of supplemental oxygen. In almost all outbreaks of EHF, the fatality rate among health care workers was higher than that of non-health care workers. Since there is no specific treatment outside of supportive management and palliative care, containment of this potentially lethal virus is paramount. Prevention is a very important tool in stopping the spread of disease especially as there is no FDA-approved vaccine available for EVD. Prevention is achieved by careful practice of personal hygiene, avoiding contact with blood and body fluids and funeral ritual that require handling the body of someone who has died from EVD;

with bats and nonhuman primates or blood, fluids, and raw meat prepared from these animals. Health care workers who may be exposed to people with EVD should wear appropriate personal protective equipment. Practice proper infection control and sterilization measures. Avoid direct, unprotected contact with the bodies of people who have died from EVD.

Conclusion. The public health sector along with the respective chief authorities in developing countries must devise strategies, keeping the available resources in mind, to deal with the outbreak before it occurs.

Elizabeth Ejagwulu, Fatima Abdur-Rahman, Al-Bhadili Laith-Muhsen

RABIES

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Actuality. Rabies (R) is an averiable viral disease caused by the rabid animal to the warm blooded animals especially human. According to an estimation by WHO, almost 55,000 people die because of R every year. Dogs, cats and foxes are the major reason behind this, approximately 99% human deaths caused by dog's bites. Developing countries are the victims of R. With the post-exposure preventive regimes, 327,000 people can prevent this disease annually.

The Aim. To study the methods of prevention and treatment of Rabies

Results. The common mode of transmission of R is by bite of a rabid animal or the contamination of scratch wounds by virus infected saliva. R is an acute infection of the central nerves system (CNS) which is almost invariably fatal. The virus replicates in striated or connective tissue at the site of inoculation and enters peripheral nerves through neuromuscular junction. It then spreads to the CNS in the endoneurium of the Schwann cells. Terminally, there is widespread CNS involvement but few neurons infected with the virus show structural abnormalities. R divided upon three stages: prodromal, excitement (furious) and paralytic (dumb). The first clinical symptom is neuropathic pain at the site of infection or wound due to viral replication. Followed by the prodromal phase either or both the excitement or paralytic forms of the disease may be observed in the particular species. R can only be confirmed by laboratory tests preferably conducted post mortem on central nervous system tissue and

also on the samples of saliva, serum, skin biopsies of hair follicles at the nape of the neck. There is no certain cure for R except supportive care. R can be prevented before the latent symptoms can develop, consists of giving a person an injection of R immune globulin (Ig) and another injection of R vaccine as soon as possible after the bite or exposure to saliva from an infected animal. Human R Ig is used or injected at the bite area immediately because it attacks the virus and slow down or stop viral progression through the nerves. Untreated or inappropriately treated R is always fatal because treatment is not effective. The solution is to use vaccination against R.

Conclusions. To conclude, nowadays R is a very dangerous disease and requires strong and permanent prevention for every susceptible victim of a rabid bite. Ways of prevention are: post-exposure prophylaxis - should be done if a person is bitten by an animal (involved: washing thoroughly of wound and scratches with soap and water and after using one dose of R immunoglobulin and five doses of R vaccine within the 28 days period) and pre-exposure prophylaxis – it needs high risk groups (veterinarian, animal handlers and laboratory workers, whose activities bring them in contact with R virus or rabid animals, international travelers likely to come in contact of the animals in the R threaten areas)

Obi Chioma Annastasia

HELICOBACTER PYLORY ERADICATION IN TREATMENT OF PATIENTS WITH ACUTE CENTRAL SEROUS CHORIORETINOPATHY

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Actuality. Although the majority of cases of central serous chorioretinopathy are self-limited, resolving spontaneously after a number of weeks, the recurrence rate is estimated to be 20% to 50%, some cases will be chronic, lasting six months or longer. The evidence of Helicobacter pylori infection appears more often in patients with central serous chorioretinopathy.

The aim was to estimate the clinical efficiency of helicobacter Pylori infection eradication in treatment of patients with central serous chorioretinopathy.

Methods. 93 patients with acute central serous chorioretinopathy participated in this study. Patients

were divided into experimental group (33 helicobacter Pylori positive patients who received eradication treatment) and two control groups who did not receive eradication treatment: 29 helicobacter Pylori positive patients and 31 helicobacter Pylori negative patients. Research methods were best-corrected Snellen visual acuity, optical coherence tomography on the «SOCT Copernicus» and fluorescein angiography.

Results. The helicobacter Pylori eradication caused decreasing of disease duration on 3 months (p=0.04) and recurrence frequency on 45,6 % (p=0.03) as well as improvement distant prognosis after 2 years: visual acuity increasing in 1,2 times (p=0.03), decreasing of scotoma frequency in 2,4 times (p=0.02) and scotoma size in 1,9 times (p=0.04), decreasing of metamorphopsia frequency in 1,3 times (p=0.03) and color pathology in 1,6 times (p=0.04); positive dynamic with complete resorbtion of subretinal fluid was marked after 3 months in all patients with central serous chorioretinopathy.

Conclusions. The Helicobacter Pylori eradication is effective in treatment of Helicobacter Pylori positive patients with central serous chorioretinopathy.

Ogbu Odira .F

CHIKUNGUNYA FEVER AND WHY IT SPREADS FASTER THAN OTHER VIRUSES.

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Actuality. Chikungunya is an arthropod borne virus(arbovirus)endemic to west africa that causes acute febrile polyarthralgia and arthritis. The name is derived from tanzanian language meaning “that which bends up ”Epidemiology is endermic in part of west Africa ,where it maintains in cycle involving humans, aides mosquitoes, primates ,and others.it has been identified in over 60 countries in Asia, Africa, Europe and American.It spreads by means of travel of infected individuals between regions where competent mosquitoes exist for perptuation of local transmission.During this period the virus must replicate and reach the mosquito salivary gland so that it will be transmitted to a new host when the mosquito takes the next blood meal.This virus is most often spread to people by aides aegypti and aedes albopictus mosquitoes ,and this mosquitoes get infected when they feed on a person already infected with chikungunya virus. Chikungunya fever is transmitted

rarely from mother to newborn, till date ,no infants have been found to be infected with chikungunya virus through breastfeeding. After bite of an infected mosquito ,onset of illness occurs usually between 4-8days but can range from 2-12days.The clinical signs and symptoms begins abruptly with fever and malaise following an incubation period of 2-4days.Fever maybe high grade (40degree)usual duration 3-5days.Polyarthralgia begins 2-5days after onset of fever and commonly involves multiple joints .Arthralgia is symetrical and involves distal joints more than proximal, Pain is intense which also can lead to immobilisation.Skin manifestation ,with most common being macular or macular papular rash usually appearing 3days or later after onset of illness and lasting 3-7days.There is no specific antiviral treatment for chikungunya fever ,treatment is directed primarily at relieving symptoms ,including joint pain and fever with antipyretics, optimal analgesics and fluids. There is no commercial chikungunya vaccine .

Results. Chikungunya fever is spreading more rapidly through Latin America, the virus has killed 21people and infected some 6000 in the region. The first cases was detected in late 2013,so far, an estimated 500,000 people have contractedf it,mainly in Caribbean. We are in century of migrations and frequent travel,and consequently in a context where diseases spreads rapidly. To date,30 countries in the Americas have been affected-argentina is the most recent.

Conclusion: symptoms of chikungunya are similar to those of dengue and zika virus because they are transmitted by same species of mosquitoes.so they should be differentiated properly .chikungunya virus should be considered in patients with acute onset of persistent fever and polyarthralgia, especially travellers who recently returned from areas with known virus transmission. *Dengue fever*: they both share some clinical symptoms ,however polyrthralgia is not typical for dengue fever. Cytopenia particularly thrombocytopenia may distinguish dengue from chikunguya fever. *Zika virus*: chikungunya presents with higher fever and more intense arthralgia than zika virus. Diagnosis is established by pcr. Enteric fever: the presentation of enteric fever is typically subacute but chikungunya is abrupt onset. *Leptospirosis*: is distinguished from chikungunya by presence of conjuctival effusion and jaundice. *Malaria*: fever in malaria is intermittent whereas in chikugunya is persistent fever.

Ogunyemi Opeyemi Oluwafunmilayo

INVESTIGATION OF INCREASING INCIDENCE OF EXTRAPULMONARY TB IN NIGERIA

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Actuality: Nigeria is one of the high tuberculosis (TB) burden countries, and reports one of the highest incidence rates of extra-pulmonary TB dominated by cervical lymphadenitis (TBLN) and abdominal TB.

Aim: To investigate the increasing incidence of extrapulmonary tuberculosis in Nigeria and find the correlation between its rising incidence and HIV-coinfection.

Materials and Method:The research was conducted among a group of patients with extrapulmonary tuberculosis registered in the out-patient clinic of a Research Institute in Nigeria, between the years 2011-2014.The demographic & clinical characteristics of 60 TBLN patients and 25 abdominal TB patients, 3 cutaneous TB patients and 2 uterine TB patients were studied. Detailed examination was carried out.Western blot tests were performed to check HIV status. Histological examination of biopsy material was carried out in every case. Diagnosis of TB was made by histological or cytological examination or demonstration of acid fast bacillus in collected sample.Patients or guardian were informed about participation in the study with the right not to participate.

Results: During the study period, 90 patients with extrapulmonary tuberculosis were diagnosed and treated. 59 of the patients were HIV positive(53-TBLN, 5-abdominal TB, 1-uterine TB). No major patient or bacterial strain factor could be identified as being responsible for the high rate of TBLN. Analysis of the demographic data of involved patients showed that having regular and direct contact with live animals was more associated with TBLN, abdominal TB and cutaneous TB than with PTB. Mycobacterium bovis was isolated from most patients with abdominal TB, but not from those with TBLN. Majority (≈90%) of patients who presented with abdominal TB were Northern Nigerians amongst-whom cattle-rearing and intake of raw milk is a very common cultural practice, this suggests that infection with Mycobacterium bovis should be included as one of the main reasons for the high rate of extrapulmonary TB in Nigeria. All 3 cases of

cutaneous tb were also amongst northern Nigerians. In these patients the incidence showed little association with HIV coinfection. The incidence of TBLN was higher amongst patients with HIV coinfection (88.3%). People of low-income groups were found to be more commonly affected, confirming the higher prevalence in overcrowded, unhygienic living conditions and possibly malnutrition (55.6%).

Conclusion: The increasing incidence of extrapulmonary tuberculosis in Nigeria can be associated with the rapidly worsening HIV/AIDS epidemic and bad economic condition in the country. It is possible that extrapulmonary TB has always had a high incidence in places where cattle-rearing and drinking of raw cow milk are common cultural practices.

Olkhovskyy Evgen, Al-Karawi Ahmed Shakir

EPSTEIN-BARR VIRUS INFECTION IN CHILDREN: A RETROSPECTIVE ANALYSIS

Research advisor: Professor Kuznetsov Sergey
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Actuality: In the recent decades, the persistence of herpesvirus infections was noticed , including those caused by Epstein-Barr virus, occupying one of the main children's infectious diseases, affecting not only the course of other infectious diseases, but also to physical development of the child in general. Considering the fact that the children with infectious mononucleosis often discharged from the hospital with an improvement of the general condition, but with preservation of the structural and functional changes in the liver.

Aim: The main aim of our study was a retrospective analysis of the liver in patients with persistent EBVI.

Materials and methods: We conducted a survey of 54 children aged 1-6 year-old who had persistent EBVI through 1-2-3-6 months after discharge from the hospital where they were treated on the active phase of EBVI (severe form). In addition to the observation, the children underwent ultrasound of the liver and liver function test.

Result: After one month study showed that 43 (79.63%) of children have preserved liver parenchymal reaction with increased echogenicity

to 10 gradations, 8 (14.82%) - the phenomenon of hepatosplenitis, 10 (18.52%) - periportal lymphadenitis, in 11 (20.37%) – abdomenal mesadenitis phenomenon. According to the results of liver function tests in 36 (66.67%) of children appeared to have the phenomena of cytolysis with increased ALT level. A survey of children at second month showed preservation of liver parenchymal reaction with a slight increase in echogenicity of the tissue in 35 (64.81%) of children, the phenomenon hepatosplenitis - 4 (7.41%), periportal lymphadenitis - 6 (11.11%), phenomenon mesadenitis - 7 (12.96%). Manifestations of cytolysis were observed in 25 (46.3%) of children. Positive dynamics was observed on the third month of study: liver parenchymal reaction was determined in 20 (37.04%) patients, one case hepatosplenitis (1.85%), four cases of periportal lymphadenitis and mesadenitis (7.41%). The slight increase in ALT level determined in 15 (27.77%) children, indicating preservation of the phenomena of cytolysis. A survey of children six months later revealed the presence of liver parenchymal reaction in 15 patients (27.77%), no cases of hepatosplenitis, in three cases of periportal lymphadenitis remained (5.55%) and four children preserved the phenomenon of abdominal mesadenitis (7, 41%).

Conclusions: in children with persistent EBVI ,for long time preserved the changes of structural and functional state of the liver, which should be considered at the stage of follow-up, to concern about in course of rehabilitation therapy with hepatoprotectors, take into account the above specified changes when combination with any other infectious disease.

Omakagu Emmanuel, Andrew Trizhelik Agnes

ZIKA VIRUS DISEASE

Research Advisor: PhD Kucherenko Olena
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Actuality. Zika virus (ZV) is a member of the virus family Flaviviridae and the genus Flavivirus. It is spread by daytime-active Aedes mosquitoes, such as A. aegypti and A. albopictus. ZV is related to dengue, yellow fever, Japanese encephalitis, and West Nile viruses. It's name comes from the Zika Forest of Uganda, where the virus was first isolated in 1947. The virus spread eastward across the Pacific Ocean 2013–2014 Zika virus outbreaks in Oceania to French Polynesia, New Caledonia, the Cook Islands, and Easter Island, and in 2015 to Mexico, Central America, the Caribbean, and South America, where the Zika outbreak has reached pandemic levels. As of 2016, the illness cannot be prevented by medications or vaccines.

The Aim. To study methods of prevention and treatment of Zika virus disease.

Results. ZV may spread from a pregnant women to the baby. This may result in microcephaly and other severe brain problems. ZV infections in adults can result in Guillain-Barré syndrome. Common symptoms of infection with the virus include mild headaches, maculopapular rash, fever, malaise, conjunctivitis, and joint pains. Three well-documented cases of ZV were described in brief in 1954, whereas a detailed description was published in 1964; it began with a mild headache, and progressed to a maculopapular rash, fever, and back pain. Within two days, the rash started fading, and within three days, the fever resolved and only the rash remained. Thus far, Zika fever has been a relatively mild disease of limited scope, with only one in five persons developing symptoms, with no fatalities, but its true potential as a viral agent of disease is unknown. For differencial diagnosis we have to remember that the symptoms of Zika are similar to those of dengue and chikungunya, diseases spread through the same mosquitoes that transmit ZV.

Conclusion. ZV is related to yellow fever, Japanese encephalitis, and West Nile viruses. There is no vaccine to prevent or medicine to treat ZV. Recomendations: Get plenty of rest. Drink fluids to prevent dehydration. Take medicine such as acetaminophen or paracetamol to reduce fever and pain. Do not take aspirin and other non-steroidal anti-inflammatory drugs until dengue can be ruled out to reduce the risk of

bleeding. To conclude, ZV disease is a very dangerous disease today and strong prevention of it can help people to avoid it.

Onuchukwu Chibuzor, Burtov Dmytro,

CHARACTERISTICS OF MULTIDRUG-RESISTANT TUBERCULOSIS IN NIGERIA

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Introduction: Nigeria is ranked tenth recently among countries with highest burden of tuberculosis (TB) in the world, with an annual incidence of 311 cases per 100,000 population and a mortality rate of 81 per 100,000 population even with the use of Directly Observed Therapy Short Course (DOTS) Strategy. Drug sensitivity survey was conducted using automated BACTEC cultures and drug susceptibility testing (DST) of patients with features of pulmonary TB in Nigeria at the Research Laboratory of Zankli Medical Centre (ZMC) in Abuja.

The aim of our study was to investigate characteristics of Multidrug-resistant tuberculosis in Nigeria.

Materials and methods. One hundred and seventeen (males 59; females 58) patients with chronic cough were investigated during the study period Three sputum samples were collected and were examined at ZMC with automated BACTEC TB culture and susceptibility in Abuja, Nigeria, Sputum smears were prepared using Ziehl-Neelsen and the specimen considered of best quality out of the three collected was cultured on an automated BACTEC 960 Mycobacterium growth indicator tube DST was conducted using four anti-TB drugs – streptomycin, isoniazid, rifampicin and ethambutol. Cultures were incubated at 37C for up to 42 days and confirmed.

Result. 117(males 59; females 58) patients with chronic cough were investigated during the study period of these, 31 had smear-positive TB. 72 patients had positive sputum culture, although M. tuberculosis complex isolates were only confirmed in 39 of these and 4 were deemed to be contaminants, leaving 35 specimens for analysis of DST. DST was performed in 32 of the 35 isolates; 10 (31%) were resistant to at least one of the four drugs tested and 4 (13%) were resistant to the four drugs tested and were classified as multidrug resistant-TB (MDR-TB). Seven of the 19 (37%) HIV-positive and 3 of the 12 (25%)

HIV-negative patients had resistant isolates to any of the four drugs.

Conclusion. This study confirms that there is a high prevalence of Multiple TB drug resistance in Nigeria, Ten (31%) of 32 culture-positive patients were resistant to at least one and four (13%) to all of the four drugs tested, No association between drug resistance and human immunodeficiency virus (HIV) infection was found. MDR-TB is present in Nigeria and larger studies are urgently required Adequate measures should be put in place to provide second-line drugs, supervision of drug distribution and compliance, enforcement of DOTS protocols and continued training of all personnel in TB management and care.

Patel Priyanka Harishchandra, Isa Mashkur Abdulhamid

THE MARKERS OF ATOPIC REACTIVITY IN SCHOOL AGE CHILDREN WITH SEVERE ASTHMA

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Actuality. A major challenge among modern pediatric allergic diseases is bronchial asthma. Assigning asthma control therapy to children should be considered based on the phenotype. Hence, performance of atopic reactivity in children that reflect the specific pathogenic mechanisms of asthma will personalize treatment and thus improve management of asthma.

The aim to increase the effectiveness of treatment of severe asthma phenotype in school-age children, taking into account the diagnostic value of atopic reactivity indicators.

Materials and method: 60 school-age children suffering from asthma were comprehensively examined in the pulmonology department of Chernivtsi Regional Children's Clinical Hospital. The study involved 30 pupils with severe asthma and 30 children with moderate course. The content of serum total immunoglobulin E(IgE), IL-4 and IL-5 were determined by enzyme-linked immunosorbent assay (ELISA). Determination of immediate type skin sensitivity to nonbacterial standard allergens was performed by intradermal tests. To study atopy, standard household, epidermal, pollen and food allergen was used.Clinical and epidemiological risks, as well as the diagnostic value of individual indicators of atopic reactivity for severe asthma phenotype

verification were defined.

Results: About one in three patients (36.4%) with the phenotype of severe asthma recorded significantly increased content of IL-4 (more than 10.0 pg/ml), while only 15.5% in the second group (Pφ<0.05). There was increased risk of relatively raised content of IL-4 and IL-5 in serum of patients with severe asthma. Almost every second child suffering from severe asthma noted increased concentration of IgE (>545.3 IU/ml). There were significantly more frequent cases of hypersensitivity to household allergens in the group of patients with severe asthma. Thus, a hyperaemia of more than 15.0mm was recorded in 81.5% of children of the first group and only in 51.9% (Pφ<0.05) of the second.

Conclusion: The phenotype of severe asthma raises the risk of increased content of IL-4 and IL -5 in serum by 3.1 times. However, this paraclinical test is rather suitable for verification of this phenotype (Sp – 84.6% (95% CI 75.9-91.1)) than for its detection (Se – 36.4% (95% CI 26.9-46.6)). Concentration of total IgE in serum of more than 545.3 IU/ml in children doubles the chances of severe asthma being present. Increased sensitivity to domestic allergens (hyperemia more than 15.0mm) allows severe asthma specificity verification (81.5%) and personalization of treatment policy in these patients.

Popovich N.

CONTEMPORARY ASSESSEMENT OF ENTEROSORBENTS

Research advisor: prof. Tereshin V. A.
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Actuality. In recent years, the problem of endogenous intoxication (endotoxemia) became acute and urgent that is why the extracorporeal blood purification is the branch of studies that is developing now.

The aim is to analyse contemporary scientific literature on this subject, describe the kinds of enterosorbents used in modern medicine.

Materials and methods. Contemporary scientific literature.

Results. The main positive effect of enterosorption is an active detoxification, based on the allocation of factors of endogenous intoxication through the gastrointestinal tract via oral

sorbents. In total there are 4 generations of enterosorbents. The 1-st generation is carbon adsorbents (Charcoal, Sorbeks). It is characterized by the fact that medications that belong this generation have small pores and adsorb small molecules: water, vitamins, amino acids and minerals . The 2-nd generation is polymeric sorbents (Polyphepan, diosmectite). It represents a plate with a gap of 1 nm between layers, which also makes impossible the sorption of medium and large molecules. The 3-rd generation is silicon and hydrogel sorbents (Enterosgel, Polisorb, White Clay, Smecta). The skeleton of the gel consists of globules, the pores represent empty spaces between the globules, binding of substance may be in a range of molecular weights from 70 to 1000 daltons (urea, bilirubin, cholesterol, midmolecule peptides). The 4-th generation is silicon highly dispersed sorbents (White Charcoal). The mechanism of sorption is based on electrostatic interaction. Particles of silicon dioxide block the agglutination centres of pathogenic microorganisms.

Conclusion. The application of enterosorbents based on silicon dioxide (SiO2) in clinical practice has several positive pharmacological effects compared to other groups of sorbents due to its high adsorption capacity, high speed of binding of microorganisms and bacterial toxins, possibility of ingestion in moderate therapeutic doses, large area of the active surface and immediate therapeutic effect.

Serdiuk V. Kozlova K.

COMPARAIVE CHARACTERISTICS OF DIFFEREN GENERAIONS OF CEPHALOSPORINS AT TREATMENT OF TONSILLITIS

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Actuality. Tonsillitis is an acute infectious disease, it takes third after influenza and other acute respiratory infections. It is one of the leading places in the temporary disability of the population. It can cause a lot of complications: rheumatic fever, myocarditis or glomerulonephritis.

The aim of this work was to study the comparative characteristics of different generations of cephalosporins in the treatment tonsillitis.

Material and methods. It was retrospective analysis. We used case histories of different patients with tonsillitis in age from 20 to 55 years. All cases were divided into 2 groups. The first group consists of 20 patients. They received Cedex (third-generation cephalosporins) at a daily dose of 400 mg. The second group consists of 25 patients. They received Cefazolin (first-generation cephalosporins) at a daily dose of 1 g. As a result of studies bacteria were found : Str. pyogenes , Staph. aureus, H. inflyenza, Str. pneumoniae, Klebsiella pneumoniae.

Results. In the process of dynamic observation, it was found that the duration of fever from the onset of the disease in patients treated with Cedex, averaged 5,4 ± 0,53 days, Cefazolin - 6,0 ± 0,50 days (p> 0.05). The duration of elevated body temperature period from the start of antibiotic therapy showed that individuals group I this figure was 4,3 ± 0,35 days, patients in group II - 4,8 ± 0,47 days (p> 0.05). Symptoms of intoxication in patients of group I have been recorded over 4,5 ± 0,32 days in group II - 4,9 ± 0,35 days. Sore throat was founded 2,3 ± 0,35 days in patients of group I, 2,5 ± 0,40 days - group II, raids on the tonsils held were located 3,5 ± 0,11 and 3,6 ± 0 15 days, respectively. Increased regional lymph nodes about 1.5-2 sm in diameter have been observed within 5,7 ± 0,35 days in patients treated Cedex, somewhat more 6,1 ± 0,40 days - patients treated Cefazolin (p> 0.05).

The germs of pathogenic microorganisms absent in 85% of of patients who received Cedex, and 80% of patients who received Cefazolin after treatment with antibiotics.

The average duration of hospitalization was in the first group - 11,3 ± 0,49, while the second - 12,1 ± 0,30.

Conclusion. As a result of the research we got to the following conclusions: the third-generation cephalosporin Cedex has a pronounced antibacterial effect in comparison with the first-generation cephalosporin Cefazolin. Cedex is more effective in eliminating the clinical manifestations of tonsillitis compared to Cefazolin.

Shcherbich J.V.

EXTERNAL TREATMENT OF LIGHT COURSE OF ACNE DISEASE IN THE ACUTE STAGE

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Actuality. Statistics shows that currently acne disease takes the third place in frequency of appeals to the dermatologists. It is especially spread among adolescents and young people. According to scientists,80% of the population aged 12 to 25 years has this disease. Changes in the endocrine system, intensive production of sex hormones, including androgens that increase the production of sebum are the main causes of acne during this period. Pathological follicular hyperkeratosis, Propionbacterium acnes growth and opportunistic pathogens - Staphylococcus epidermidis, Staphylococcus aureus, inflammatory process in general plays an important pathogenetic role . Thats why, treatment should be complex and should affect all these parts.

The aim. To investigate the effectiveness of local combined treatment of light course of acne disease in the acute stage using Deryva C remedy, Effaclar Duo (+) correction remedy and laser therapy, determine the dermatological life quality index (DLQI) of patients.

Materials and Methods:14 patients aged 15 to 31 years with light course of acne disease in the acute stage were examined and treated. All had open and closed comedones on face, papules and pustules on different stages of development.Gel Deryva C, which was applied with a thin layer on clean, dry skin 1 time per day in the evening was used as external therapy. Effaclar Duo (+) corrective remedy was used with a thin layer 1 per day in the morning to reduce a comedogenic. All patients were prescribed a local laser therapy with a wavelength of 380 - 420 nm and 650 - 660 nm 1 per day. At the beginning and after five weeks of treatment the estimation of dermatological life quality index (DLQI - Dermatology Life Quality Index) was made.

Results: The positive dynamics of reducing of acute inflammation and the number of lesions were showed after the first week of treatment. The maximum therapeutic effectiveness was noticed from the 4-5-th week of treatment.The 7-th week of treatment was accompanied by dry skin, which was successfully corrected by Effaclar Duo (+) remedy in most patients.The by-effects were not found during the researching. At the same time a significant decrease

of the DLQI index was noticed with the improvement of clinical symptoms. So, before the beginning of the treatment people`s DLQI was 15,2 ± 0,53, and after treatment it was- 7,3 ± 0,88,thus it decreased in 2,08 times.

Conclusions: The proposed combination of external treatment and laser therapy is an effective and safe method of treatment of light course of acne disease, has anti-comedone and anti-inflammatory action, helps to prevent the appearance of new lesions. The use of the proposed treatment has greatly improved the quality of life of patients with acne,about what a decrease of DLQI index shows.

Sokhan A.V., Gvozdeckaya M.G., Urko K.V., Gavrilov A.V., Hasanova A.

CLINICAL AND LABORATORY FEATURES OF ACUTE NEUROINFECTIONS IN HIV-POSITIVE PATIENTS.

Research Advisor: Doctor of Medical Sciences, Professor Kozko V.N.,
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Actuality. Clinical presentation of neuroinfections in HIV-infected includes a wide spectrum of manifestations from asymptomatic infection to a symptomatic and severe illness. Central nervous system involvement should be always considered as a severe clinical form in HIV-infected. Physicians should be aware to the broad clinical spectrum of neuroinfections in HIV-infected patients. In the Kharkiv region all HIV - infected patients with infectious diseases that require hospitalization hospitalized in regional clinical infectious diseases hospital. Experience of recent years demonstrates the relevance of infectious CNS lesions in this group of patients.

Matherials and Methods. Analysis of cerebrospinal fluid of patients by PCR which have features of acute neuroinfections in HIV-positive patients

Results. In recent years CNS lesions observed in 42,5% of patients. Through examination of cerebrospinal fluid of patients by PCR was confirmed etiology of CNS infections: toxoplasmosis in 19,9% of patients, herpes simplex virus in 2,0%, cytomegalovirus in 13,2%, Epstein - Bar virus in 18,5%, herpes-zoster virus in 2,8%, cryptococcosis in 7,4% and mycobacterium tuberculosis in 9,3% of cases. In

10,0% of patients mix-infection was diagnosed. Despite the use of modern methods of diagnosis of CNS etiology remained unclear in 45.7 % of patients. This certainly reduces the effectiveness of treatment, increase the risk of complications and deaths. Almost all HIV-infected patients has subacute or chronic course of the neuroinfection, with slightly pronounced or even absent meningeal symptoms and syndromes of intoxication, which is not typical for immunocompetent patients. Clinical symptoms of CNS infectious lesions in HIV-infected are usually characterized by progressive dementia, cognitive disorders and paresis.

Conclusion. In HIV-infected patients, we can see no change in the clinical analysis of CSF. Even in patients with acute neuroinfection observed only increased protein level and a slight increased level of lymphocytes. The absence of significant changes to show features of infection in the central nervous system in HIV-infected show low informativeness of routine clinical tests in this group of patients.

Sokhan A.V., Ansyferova N.V., Gavrilov A.V., Dudnik A.U.

DIAGNOSTIC VALUE OF NEURON SPECIFIC ENOLASE (NSE) LEVEL IN CEREBROSPINAL FLUID OF PATIENTS WITH ACUTE BACTERIAL MENINGITIS.

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Bacterial meningitis occupies a special place in the structure of acute neuroinfections. These diseases are not only high rates of mortality but frequent complications. As a marker of tissue damage to the brain is suggested to use different neurospecific proteins entering into the neural and glial tissue. In studies of recent years shows the diagnostic value of increasing the concentration some neurospecific proteins in CSF and blood of patients with stroke, traumatic brain injury, diseases with demyelization. However, no data on the neurospecific protein levels in patients with acute neuroinfections. To evaluate the diagnostic value and the degree of destruction of neurons in adult patients with bacterial meningitis, we determined the CSF level of NSE in the course of the disease. The comparison group consisted of 12 patients with acute respiratory infections and meningism. We observed 54 patients with acute bacterial meningitis. Among them 26 – with pneumococcal and 28 – with meningococcal etiology of the disease. Among them, 15 (27.8%)

showed moderate severity, 39 (72.2%) – severe course of disease. In 7 (12.96%) patients the disease ended lethally. Severity was mainly due to the development of cerebral edema, an infectious-toxic shock and focal neurological symptoms. All patients with severe disease at the time of admission were observed cerebral edema symptoms of varying severity. The obtained data show a significant increased NSE level in cerebrospinal fluid during the acute phase of the disease. NSE level was not significantly dependent on the etiology of the process, but it depended on the severity of the disease – the highest levels were observed in patients whose disease has ended lethally. In a group of moderate severity level of NSE in CSF of patients with meningococcal meningitis was 18,20±1,97 mg/l, pneumococcal – 20,28±1,91 mg/l, in severe – 25,57±2,55 mg/l and, 22,94±1,62 mg/l ($P<0,01$), in patients with fatal consequences – 28,93±0,88 mg/l ($P<0,001$ and $P<0,01$). In all patients with pneumococcal meningitis in acute phase of the disease CSF levels of NSE was significantly higher than in the control group ($P<0,001$). Increased levels of NSE in patients with acute bacterial meningitis, depending on the severity of the disease demonstrates the presence of neuronal damage that is important diagnostic and prognostic marker.

Elzahra Mohamed

STIGMATIZING INFECTIOUS DISEASES

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Actuality. Stigma is a mark of disgrace that sets a person apart. When a person is labelled by their illness they are seen as part of a stereotyped group. (According to WHO).

The Aim. To focus the light on the silence sufferance of patients with stigmatizing infectious diseases in order to create an awareness in the community of the infectious diseases and how people must deal with them.

Results. Stigmatizing infectious diseases include: hepatitis, AIDS, tuberculosis, Sars and others. People with such diseases suffer from feeling of shame and they may get frustrated and disappointed because of unacceptable attitudes from people toward them. Some people are afraid of getting infected so they prefer to stay away, others despise those patients especially whom with AIDS/HIV, less people are aware enough of the various infectious

diseases and their transmission ways.

Through the ages, many stigmatizing infectious diseases were associated with epidemic illnesses such as colera and chicken box. Patients were held in the quarantine till they die or recover, but even if they recover they face Barriers when dealing with the refusing unaware society.

However, what makes the problem bigger or simpler is the doctors and medical care practitioners who deal with the patients, because their behaviour has a direct impact on the progress of the patient's psychological and physiological health.

According to the bioethics principles in the clinical practice, practitioners in the medical field are not allowed to refuse treating patients with such diseases. But this is not always the truth, a trustful resources have proved that some practitioners specialized in testing blood samples of patients refuse testing samples of patients who are susceptible to such an illnesses.

Best recommended solution is to raise the awareness of the entire society in general and the employers in the medical fields in specific. People must get the knowledge of the ways of infections spreading, and the possibility of treating several types of infectious diseases and the preventing processes that they may use to stay far away from diseases.

Conclusion. Patients as well need to be educated enough and have the required information about their diseases in order to be able coexist with them and participate in the treating journey in an effective way. Qualifying centers may be successful in such issues. A patient with a confident is much easier been helped and treated than a patient with shame.

Tikhonova Olga, Adamsky Mark

CLINICAL CRITERIA FOR DIAGNOSIS OF CEREBRAL TOXOPLASMOSIS IN HIV-INFECTED PATIENTS

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Actuality. HIV infection acquired in the world pandemic properties. Among all opportunistic diseases arising on a background of AIDS, 38 % is toxoplasmosis infection.

The aim of the present study is to improve the diagnosis of the CNS lesion caused by T. gondii, occurs in

HIV-infected persons, based on a comprehensive clinical studies.

Matherials and Methods. Clinical-anamnestic information of CNS disease in HIV-infected persons, caused by T. gondii.

Results. After studying histories of the disease, it was found that the disease started slowly, patients came to the hospital on average (88,0 ± 21,2) day after onset of disease. Most came to the hospital in moderate condition - 69.7% of cases. In severe condition - 24.3% cases and in satisfactory condition - 6%. The duration of the time from diagnosing of HIV infection to the appearance of the first manifestations of T. gondii CNS affection was in average (2,2 ± 0,6) years.

An objective examination of patients defined by disorientation in place, time and personality - in 27.3%, psychomotor excitation in 6.1%, disorders of higher integrative functions such as memory loss - in 21.2% of patients. Meningeal syndrome was defined by stiff neck - at 39.4% and Kernig symptom - in 45.5% of patients. Motor abuse as hemiparesis, paraparesis and tetraparesis were present in 48.5%, epileptiform syndrome - in 27.3%. Abnormal reflexes were found in 21.2% of patients

Conclusion. The affection of the CNS induced by T. gondii in HIV-infected people develops encephalitis. Most patients came to the infectious hospital in moderate condition and with a clear conscience. The main complaints are weakness, mild diffuse headache, nausea and often vomiting. An objective examination of patients shows most often weakness in the limbs, epileptiform and vestibular-atactic syndromes, disorders of higher integrative functions.

Tregub E.

CHANGES IN NITROGEN OXIDE IN PATIENTS WITH DESTRUCTIVE RECURRENT PULMONARY TUBERCULOSIS UNDERGOING THE INTENSIVE PHASE OF ANTI-TUBERCULOSIS THERAPY

Research advisor: Butov D., PhD, Candidate of Medical Sciences
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Actuality. The determination of nitrogen oxide status in patients may contribute to the diagnosis of tuberculosis (TB) and to determining the effectiveness of treatment and prognosis since nitrogen oxide have been ascribed an important role in immune response to TB.

Aim. To study changes in nitrogen oxide (NO) in patients with destructive recurrent pulmonary tuberculosis (RPTB) undergoing the

intensive phase of anti-tuberculosis therapy.

Matherials and methods. 198 patients were screened for TB: 71 patients with destructive RPTB (1st group), 29 patients with RPTB without degradation (2nd group), 98 patients with newly diagnosed destructive pulmonary TB (NDPTB) (3rd group) and 30 healthy donors (4th group). All patients at admission had infiltrative pulmonary TB. NO status was evaluated by measuring by spectrophotometry the inducible NO synthase in neutrophils (iNOS), nitrite and nitrate levels in samples of venous blood prior treatment and two months later.

Results. At entry, the contents of NO in 1st group iNOS (231.6 ± 7.74) pmol\min\mgB, nitrate (56.35 ± 1.09) mmol/l, nitrite (5.40±0.11) mmol/l; in 2nd group iNOS (307±8.46), nitrate (63.18±1.48), nitrite (6.24±0.17); in 3rd group iNOS (251.7±6.34), nitrate (61.82±1.35), nitrite (5.77±0.11) values were significantly different ($p<0.05$); compared to 4th group iNOS (81.03±2.36), nitrate (37.98±1.30), nitrite (3.83±0.09). NO levels were significantly higher in 3rd group compared to 1st group, while lowest levels were in 2nd group. After two months of treatment the 1st group had iNOS (104±3.30), nitrate (44.63±1.05), nitrite (4.41±0.10), 2nd group iNOS (85.21±2.98), nitrate (37.17±1.52), nitrite (3.70±0.10), 3rd group iNOS (91.86±1.19), nitrate (41.41±0.90), nitrite (4.14±0.07) meaning that the difference between baseline and post-treatment was significant ($p<0.05$). After two months of therapy patients in 2nd group had significantly more pronounced decrease in NO than 1st group.

Conclusions. In patients with pulmonary TB had significantly higher output in NO than in healthy controls. Before treatment initiation patients with RPTB had significantly lower rates of NO than in patients with NDPTB. After 2 months on chemotherapy patients with pulmonary TB had significantly lower NO activity. There were significant differences in the indices NO between patients with destructive and without destructive RPTB.

Vashchenko V. N., Kulinchenko G. M., Luchko N.O.

SUPERSHARP COURSE OF FULMINANT HEPATITIS B. CLINICAL CASE.

Research advisor: Bondar A.E., Candidate of medical science
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Actuality. The fulminant course of acute hepatitis B is a severe disease, which is characterized by rapid development of acute liver

failure with the accession of hepatic encephalopathy and DIC. The peak of this disease occurs in the age group from 20 to 49 years. It is known that about 30% of the population has already had the contact with people who were infected with the hepatitis B virus.The prevalence of hepatitis fluctuates from 0.1% to 20%. In this case, for 1 incident of acute hepatitis B occurring with jaundice, can be to 10 anicteric forms, and in 0,1-0,5% of incidents of acute HBV infection occurs fulminante.

Aim. To analyze the clinical features of fulminant form of acute hepatitis B on the example of a clinical case.

Materials and methods. Clinical observation of the patient H., 25 years old, who was treated in Kharkiv Regional Clinical Infectious Diseases Hospital in January - February2016.

Results. The patient was brought in Kharkiv Regional Clinical Infectious Diseases Hospital by the brigade of emergency medical services 31.01.16 on the 4th day of illness with a diagnosis ARVI. The patient was hospitalizedin to the Kharkiv Regional Clinical Infectious Diseases Hospital with a preliminary diagnosis: Food toxicoinfection? After examination in the department 01.02.16 were complaints about a sharp general weakness, flaccidity, drowsiness, yellowness of skin and sclera. The liver is on the level of 1.0 cm below the costal margin. Laboratory data: a sharp rise in ALT, hyperbilirubinemia due to direct fraction, hypocoagulation – prothrombin index 28%. Diagnosed as: acute viral hepatitis, fulminant course. By the combination of clinical and laboratory findings the patient was transferred to the intensive care unit. In the dynamics 02.02.16 is observed the progression of hepatic encephalopathy, consciousness at the level of stupor – coma I degree, liver – 2 cm above the costal margin. Examined by concilium, the diagnosis: acute viral hepatitis B (identified HBsAg, anti-HBcor IgM, DNA of HBV with negative total anti HDV, anti HEV), fulminant course, hepatic encephalopathy II-III degree. Conducted therapy: Lamivudine, corticosteroids, protease inhibitors, lactulose, hemostatics, detoxification therapy, Rifaximin. 04.02.16 progressive encephalopathy with the accession of convulsive syndrome, increase of the hepatic-renal failure, fatal outcome. Pathological and clinical diagnoses – comparison of 1A.

Conclusions. Supersharp course of fulminant form of acute hepatitis B has led to the adverse outcome, despite adequate diagnostic and therapeutic tactics in the hospital. Scarce and nonspecific symptoms at the early stage of a disease before the onset of jaundice causes diagnostic difficulties. The most effective method of preventing hepatitis B is a specific vaccination.

NEUROSCIENCES

Ali Harb

PARKINSON'S DISEASE, AND ITS RELATION WITH THC (TETRAHYDROCANNABINOL)

Research advisor: Riznychenko O.K., candidate of med. science, ass.prof.
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Actuality: Parkinson's disease (PD) is a degenerative disorder of the central nervous system mainly affecting the motor neuron, it is primarily associated with the gradual loss of cells in the substantia nigra of the brain which will lead to decrease in dopamine production, and the presence of Lewy bodies and Lewy neuritis(abnormal aggregates of protein that develop inside nerve cells in Parkinson's disease). This will lead to tremor, bradykinesia, soft voice, decreased in facial expression, sleep disturbance, decreased olfactory sensation, slowliness of thinking, malaise, weakness, rigidity of limbs, dystonia. Inhibition of gamma-aminobutyric acid action may lead to increasing in dopamine levels; studies showed that tetrahydrocannabinol helps in blocking gamma-aminobutyric acid.

The aim: The research aims at the study the effect of tetrahydrocannabinol on Parkinson's disease and its symptoms.

Matherials and methods: 6 patients with Parkinson's disease were asked to stop taking their usual Parkinson's disease drugs, and they started to take only tetrahydrocannabinol in the morning time, which was introduced intravenously after breakfast.

Results: The study elicited significant decreasing in tremor, sleep disturbance, bradykinesia and rigidity of limbs in 5 patients, and barely decreased in one patient.

Conclusions: Based on the obtained results, it can be stated that tetrahydrocannabinol helps relieve major symptoms of Parkinson disease, and this effect is by increasing dopamine levels by blocking the action gamma-aminobutyric acid (GABA).

Feldman D.A., Mykhaylov V.B.

PSYCHO-EMOTIONAL DISORDERS IN DISPLACED RESIDENTS FROM ATO ZONE

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Actuality: As far as is known the spectrum of potential mental disorders connected with their experience of life-threatening situations is rather big. For rendering of psychological and psychiatrical help to people and displaced residents from ATO (anti-terrorist operation) zone an important thing is knowledge about consequences of armed hostilities on the state of mental health that is an actuality of this investigation.

The aim: To study developmental peculiarities of psycho-emotional disorders in individuals of the displaced residents from ATO zone.

Matherials and methods: With the help of clinical and psycho-diagnostic (Hamilton Depression Rating Scale, State-Trait Anxiety Inventory, life quality scale) methods, 30 persons (15 men and 15 women) were investigated.

Results: Principal patho-psychological syndromes diagnosed in the persons of displaced residents from ATO zone: astheno-depressive (75.9 %), astheno-distressing (82.5 %), astheno-phobic (13.2 %), astheno-hypochondriacal (3.3%). Results of the psycho-diagnostic investigations showed up that in men the indices of a reactive alarm (average score – 37.7 ± 3.0) were higher than the indices of a trait anxiety (average score – 32.6 ± 2.9). In women the indices of a trait anxiety (average score – 38.6 ± 2.9) were higher than the indices of a reactive alarm (average score – 34.7 ± 3.0). An average score on the Hamilton Anxiety Rating Scale in men: 17.0 ± 2.3 points, in women: 18.0 ± 2.3 points.On the life quality scale, investigation of the individuals did not reveal any substantial differences among men and women. In the lowest level the scales were evaluated as follows: 'Psychoemotional State', 'Interpersonal Interaction' and 'Overall Comprehension of the Life Quality'. Also, under the terms of the informed consent of the parents, we conducted a survey of 10 refugee children under the age of 9 years, who, together with his parents moved to Kharkov from ATO zone. There have been several major clinical and psychopathological symptom: a dominance asthenia (54%); anxiety and phobic

symptoms (26%); behavioral disorders (20%).

Conclusions: Therefore in the majority of people having left ATO zone one can observe psychoemotional disorders of various expression grades which need further correction in conditions of specialized medical institutions.

Ghazal Bilal Hassan

EFFECT OF POST-ISOMETRIC THERAPY ON PATIENT WITH TENSION HEADACHE

Research advisor: As.prof. Riznychenko Olena
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Actuality: Tension headache is the most common type of headache. Tension produce pain in the neck and shoulder resulting in constriction of the blood vessels and blood circulation resulting in headache. Stress guilt fear and anger, depression, and rage are all contibuting factors of tension headache. Beside pharmacological treatment, another techniques can be applied, post isometric relaxation (PIR), which is a massage therapy directed toward the exact points and tension in particular muscles.

The aim: Prove the effect of post-isometric relaxation therapy in relieving of tension headache in young people.

Materials and methods: ten participants (6 females, 4 males) were taught the method of PIR by a special therapist, and asked to apply it daily and at the moment of attack of tension headache, for one month. PIR technique is based on loosening up and activated the tensed muscles (muscles of head and neck facial muscles SCM muscle), begins by placing the muscle in stretch position then an isometric contraction is exerted against a minimal resistance, a gentle stretch follow as muscle release. All the patients were taught to do the same exercises in the same range.

Results: 8 participants applied the exercises on daily basis in which seven of them declared a decrease in frequency of tension headaches attacks after three weeks, nine patients said they had an instant relief of pain when exerting the exercises at the moment of attack.

Conclusions: PIR is very beneficial technique, which can be easily done at home or under the supervision of therapist,

recommended to more studies (on other muscles and other problems) and to be included in the basic of treatment of tension headache.

Hleizer A.

IMPACT OF GILLES DE LA TOURETTE SYNDROME ON THE INTELLECTUAL LEVEL OF THE CHILDREN

Research advisor: Riznychenko E., candidate of medical sciences, associate professor
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Actuality: Gilles de la Tourette syndrome is widespread disease, but at the same time, one of the least studied disorder of central nervous system. It's characterized by motor, phonic and behavioral tics. It was determined that high percentage of people suffering from Tourette syndrome also has learning difficulties and disruptions of the attention. One of the frequent complains is the emergence of obsessive thoughts and actions. Since that disorder has significant impact on development of children and a frequency of detection of disease is rising, we should pay particular attention on studying of Gilles de la Tourette syndrome from the perspective of intellectual disorders.

The aim: To determine the extent of impact of Gilles de la Tourette syndrome on the intellectual level of the children.

Matherials and methods: The research involved 6 children, aged 7 – 11 with diagnosed Tourette syndrome. Children have multiply tics with different characteristics and localizations. For evaluation was used Raven's Progressive Matrices in accordance with the age of each child.

Results: The results obtained that 4 children has average intelligence in their age group. Also 2 children have average intelligence, but their results of test are on the low end of normal.

Conclusions: Thus this study shows that Tourette syndrome has little impact on the intellectual level of the children. However, we need to draw the attention to groups at risk to stop the deterioration of situation. And also we need to exclude the impact of other endogenous and exogenous factors on the results of research.

Kashyrina O., Riznychenko O.

EFFECTIVENESS OF ZINC PREPARATIONS IN TREATMENT OF HEPATOLENTICULAR DEGENERATION

Kharkiv national medical university (neurology department №1), Kharkiv, Ukraine

Actuality: Hepatolenticular degeneration, or Wilson's disease is a severe chronical progressive disease, which is connected with genetically determinate disorder of copper metabolism. On the average, there are 30 cases in 1 million people recorded in the world. And without treatment it can lead to death. Penicillamine is the first treatment used, often give complications. So there is a reason to search for new, more effectiveness and less toxic preparations for treatment of this disease.

The aim: To research effectiveness of zinc preparations in treatment of hepatolenticular degeneration.

Matherials and methods: There are 8 patients (5 females and 3 males) with diagnosis hepatolenticular degeneration under observation. The age at the moment of hospitalization is from 16 to 34 years, on the average 24,7 years. At the moment of disease debut – from 12 to 23 years old, on the average 17,9 years old. 4 patients have rigid-shaking form, 3 have shaking form and 1 patient has hyperkinetic form. All patients got zinc preparations monotherapy for more than a year, because of complications, caused by Penicillamine.

Results: As a result of treatment, we could observe improvement of neurological status in all patients. Namely, tremor decreased, dysphagia disappeared, increased speech, amplitude and frequency of hyperkinesia also decreased. Side effects, like minor dyspepsia disturbed only 2 patients.

Conclusions: Zinc preparations are effective in treatment of hepatolenticular degeneration and can be a good alternative to penicillamine. Zinc preparations have low toxicity and they don't cause serious complications. However, according to clinical forms and diagnostic methods, along with pathogenetic therapy, patients also need to get symptomatic therapy 1-2 times per year.

Kennedy Enem

TRIGGERS OF MIGRAINE IN DIFFERENT PATIENTS AND CONDITIONS

Research advisor: Riznychenko O.K., Candidate of medical science associated professor
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Actuality: migraine is a primary headache disorder characterized by recurrent headaches that are moderate to severe. Typically, the headaches affect one half of the head are pulsating and last from 2 to 72 hours and many patients get reocurruring migraines without being sure of their triggers and so are left clueless on how to avoid migraines.

The aim: To prove that different people have very completely different triggers for migraine.

Matherials and methods: Ten participants (5 females and 5 males) were asked about the causes of their migraine and then we tested them separately with triggers of all the patients including ones we suggested ourselves for 3 days.

Results: The patients each mentioned their own individual peculiarity to the triggers, that is each patient noted that they responded to some triggers but didn't have any effect from some other ones and that they discovered new triggers to their migraines from the experiment which they didn't know about earlier

Conclusions: Doctors should be able to fully understand that patient's triggers are very different and varied and that many times the patients are not fully aware of all their triggers and as such should do proper observation, anamnesis verification and experimentation before concluding, so that they can properly advice their patients on trigger avoidance mechanisms.

Korolkova A.

THE PROBLEM OF EARLY DIAGNOSTICS OF FRIEDREICH'S ATAXIA

Research advisor: Teslenko O.
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Actuality: Friedreich's ataxia (FA) is an autosomal recessive inherited disease that causes progressive damage to the nervous system because of particular genetic mutation in the FXN gene. This one

encodes the protein frataxin. Frataxin is very important for mitochondrial work, it takes the iron out of mitochondrial area. If there is not enough frataxin, the excess of iron induces producing of dangerous free radicals. The condition is called after German physician Nikolaus Friedreich, who was first to describe it in the 1860s. This pathology is one of the first inherited ataxia which was found out in a big group of locomotor diseases. Its incidence in the general population is roughly 1 in 50,000. FA has clear diagnostic signs.

The aim: to analyze the existing methods of diagnostics of Friedreich's ataxia, to pay attention of medical community to the significance of early detection of this pathology.

Materials and methods: Some literature sources were analyzed in order to get the information about this problem. It was revealed that the disease has typical clinical indications: autosomal recessive inherited disease; start under 25 years old, progressing of ataxia, muscle weakness in arms and legs, weakness of tendon reflexes, loss of vibratory and proprioceptive sensation, dysarthria.

The most exact test is the DNA-testing. This method can find the damaged gen and differ this ataxia from another one. It is also important to perform Electrocardiography (indicating Cardiomyopathy), Electromyography, X-ray radiography (indicating bones pathology) and blood test (for endocrine disorder). The advantage of DNA-testing is the ability to make this research at any age and get authentic results.

Results: This work shows us availability of methods enough for diagnostics in this group of patients. Early detection of the problem is possible and necessary for treatment assignment in right period. It can improve the quality of a patient`s life.

Conclusions: It is necessary to pay doctor`s attention to the existence of such problem. This problem is relevant especially for pediatricians, cardiologists, endocrinologists and orthopedists-traumatologists because of the different signs of this pathology. Also it is real to diagnose FA and help patients by sending them to genetics and neuropathologists.

Kraskovska T.

PSYCHOEDUCATION AS ONE OF THE COMPONENTS OF RESOCIALIZATION IN PATIENTS WITH DEPRESSION

Research Advisor: PhD. Zelenska K.
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Actuality: Depression is a mental affective disorder, which is manifested by the triad: slowing of thought and speech, low mood and loss of ability to rejoice, retardation of motor skills. International epidemiological research has shown that the frequency of depression in society varies from 4.8 to 7.4 %. 25 % of patients of General practitioners had depression. Depression is one of the main motives of suicide in all countries. Every year depressed patients commit suicide 850 thousand times. WHO reports that half of the patients with depression are not receiving the necessary support due to incorrect diagnosis of the disease or due to the fact that do not seek the help of doctors.

The aim of our research was to study the complex system of psyhopatology in patients with depression as a part of psychosocial rehabilitation and the development of optimal methods of application of psychoeducational programs in complex rehabilitation of patients with depression.

Materials: we examined 20 patients of both sexes aged 18-45 years with depression according to the ICD-10 criteria, complex therapy included pharmacotherapy and psychoeducational classes in groups of 6-7 patients. The cycle consisted of 10-12 classes: 1.5-2 hours 1-2 times a week.

Methods: clinical-psychopathological: the study of complaints, mental and somato-neurological status, the allocation of the main psychopathological syndromes; psychodiagnostic using scales of anxiety and depression of Hamilton (M. Hamilton, 1967), hospital scale of anxiety and depression (HADS), (Zigmond A. S., Snaith R. P., 1983);statistical.

Results: In patients received proposed therapy rapid reduction of psychopathological symptoms, normalization of emotional state, stabilization of behavior, improvement of cognitive functions, increasing of psycho-physical activity of patients, expansion of contacts with others, the resumption of the usual mode were noted. By the fourth week of the therapy the indicators on a scale of anxiety and depression Hamilton from 26 points decreased to 10.5 points; on hospital scale of anxiety and depression from 11 points to 6.

Conclusions: an integrated approach in the treatment of

depression including pharmacotherapy using inhibitors of reverse capture of serotonin and norepinephrine in combination with psychoeducational training leads to restoration of social activity and successful resocialization of the patients.

EFFECTS OF PLASMAPHERESIS AND PHYSICAL EXERCISE ON A PATIENT WITH MULTIPLE SCLEROSIS.

Majida Sameja and Komal partap singh
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Actuality: Multiple sclerosis is characterized by disseminated patches of demyelination in the brain and spinalcord.common symptoms include visual and oculomotor abnormalities,paresthesias,weakness ,spasticity,urinary dysfunction and mild cognitive impairment.Typically,neurologic deficit are multiple,with remissions and exacerbations gradually producing disability.

Diagnosis, requires clinical or MRI evidence of >/= 2 characteristic neurologic lesions that are separated in both time and space (location in the CNS).

The aim: prove the effect of plasmaphoresis and physical exercise in relieving of Multiple sclerosis.

Matherials and methods: 8 participants (5females,3males) was done and exercising not less than30minutes daily and plasmapheresis ounce a month,plasmapheresis is by plasma exchange to manage sudden, severe attacks, sometimes called relapses or flare-ups. Their plasma could have certain proteins that are attacking their own body. When you take out the plasma, you get rid of those proteins, and symptoms may get better.

Results: The process isn't painful, and does not need anesthesia.You'll lay in bed or sit in a reclining chairt a needle attached to a thin tube, called a catheter, into a vein in each arm, you may have to have a needle in the patients shoulder; blood comes out through one of the tubes and goes into a machine that separates your plasma from your blood cells. Then your blood cells get mixed with fresh plasma, and the new blood mixture goes back into your body through the other tube.patient were advised to workout 30minutes daily.

The 8 patients where administered with daily exercises and they declaired that there symptoms had

reduced including tremor , muscle pain , weakness.

Conclusions: it was observed that plasmapheresis was beneficial against multiple sclerosis.

Obi Chioma Annastasia

ROLE OF AGE AND SEX DIFFERENCE IN ATHLETES WITH CONCUSSION

Research advisor: Kufterina Nataliya, Dr
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Actuality: Concussion is as a result head injury which occurs without signs of neurological deficit. Currently, researchers have begun to focus on age and sex differences in concussion outcomes. The results shows that younger athletes and female athletes may take a longer period of time to recover from a concussion. Moreover, much is not yet known about the interactive effects of age and sex on symptoms, neurocognitive testing (NCT) and postural stability.

The aim: The aim is to determine the symptoms in various sex and age, NCT, and postural stability following concussion. We have observed that high school and female athletes would have worse symptoms, NCT, and postural stability than college and male athletes, respectively.

Materials and Methods: A total of 296 concussed athletes from a multistate, 2-year study were enrolled in this study. Participants completed the Immediate Post-Concussion Assessment and Cognitive Test (ImPACT) and Post-Concussion Symptom Scale (PCSS) at baseline and again at 2, 7, and 14 days after concussion. Participants completed the Balance Error Scoring System (BESS) at 1, 2, and 3 days after concussion.

Results: Female athletes performed worse than male athletes on visual memory (mean, 65.1% and 70.1%, respectively; P = .049) and reported more symptoms (mean, 14.4 and 10.1, respectively) after concussion (P = .035). High school athletes performed worse than college athletes on verbal (mean, 78.8% and 82.7%, respectively; P = .001) and visual (mean, 65.8% and 69.4%, respectively; P = .01) memory. High school athletes were still impaired on verbal memory 7 days after concussion compared with college athletes (P = .001). High school male athletes scored worse on the BESS than college male athletes (mean, 18.8 and 13.0, respectively; P = .001). College female athletes scored worse on the BESS than high school female athletes (mean, 21.1 and 16.9, respectively; P = .001).

Conclusions: The results of the current study supported age and sex differences in memory and symptoms and an interaction between age and sex on postural stability after concussion that warrant consideration from clinicians and researchers when interpreting symptoms, specific components of NCT, and postural stability tests. Future research should develop and assess interventions tailored to age and sex differences and include younger (<14 years) participants.

Olaniyan Mercy

THE USE OF MUSIC THERAPY IN THE TREATMENT OF ANXIETY AND DEPRESSIVE DISORDERS IN PREGNANT WOMEN

Research advisor: Leshchyna Iryna MD, Candidate of medical sciences(PhD)
Kharkiv National Medical University
Psychiatry, narcology and medical psychology

Actuality: Currently, most scientists hold the view that women during pregnancy are at increased risk of developing mental disturbances, and the most commonly found are anxiety and depressive disorder due to hormone changes that affect the chemicals in the brain.
The limited use of pharmacological treatments for affective disorders in women during gestation determines the need to consider psychotherapy as the main method among which the least studied is the therapeutic effect of music.

The aim: The purpose of our study is to evaluate the effectiveness of music therapy in the treatment of anxiety and depressive disorders in pregnant women.

Material and methods: Clinical-psychopathological, psychodiagnostical (Hamilton Depression and Anxiety Scale, «Quality of life index») and methods of statistical analysis were used. In the research, 25 pregnant women were inspected aged between 20 and 32 years. Gestational age ranged from 22 to 32 weeks.

Results: In 56% of the examined women were observed affective disorders of mild and moderate severity in the form of depressed mood, anxiety, fear, irritability, decreased mental and physical activity. According to the Hamilton scale, anxiety disorders were diagnosed in 44.0% of pregnant women. Most of them (63.6%) were characterized by mild degree of anxiety, 36.4% - moderate

and severe. In 24.0% of women depressive disorders of mild and moderate degree were identified. In the analysis of the profile of the quality of life, the following attract attention: the significant decline of indicators on the scale of «Interpersonal interaction» (5.35± 0.55), «Psychological and emotional well-being» (5.45±0.2), «Physical health» (6.05±0.25).

In order to determine the efficacy of music therapy in treatment of emotional disorders in pregnant, 2 groups were allocated: the first - consisted of 8 patients, who received complex treatment with music therapy, second group – women, who were treated with standard therapy (6 people). Music - therapy sessions were conducted in groups of 8 people lasting 60 minutes with a frequency of 3 times per week for 2 months.

As a result of complex therapy with the use of music therapy, in 71.44% of pregnant women in the first group was noted normalization of anxiety and depression. In 21.42% cases affective disturbances decreased to subclinical stage. In 7.14% of women - positive dynamics, but indicators remained at high level. The profile of the quality of life was characterized by greater uniformity of assessments of different aspects of life. The study identified significantly larger increases in these indicators in the main group than the control ($p<0.01$).

Conclusions: The use of music therapy in complex treatment of anxiety and depressive disorders in pregnant women is an effective psychotherapeutic tool aimed to normalize the emotional and psychological state of women, improving their adaptive capacity, quality of life and it plays an important role in preparing for successful delivery.

Olefir O.S.

COMPUTER ADDICTION AS A FACTOR OF PROVOKE SITUATIONAL ANXIETY INCREASING

Kharkiv National Medical University, Department of Psychiatry and Medical Psychology of Addiction
Supervisor: Cherkasova O.

The term "computer addiction" defines a pathological addiction person to work or spending time at the computer. This term is still not recognized by many scientists concerned with mental disorders, but the phenomenon of formation of pathological human-computer communication was evident and becoming more razmah.Situativnaya

anxiety as a condition characterized by subjectively experienced emotions: stress, anxiety, concern, nervousness. This condition occurs as an emotional reaction to a stressful situation and may vary in intensity and dinamichnosti.Danaya work is the second stage of the study, in which we prove the hypothesis that lightning technology development and implementation of them in our daily life has some negative mental health Aspects.

To confirm this idea, we investigated the relationship between the presence of computer addiction and the level of situational anxiety in three age groups (Group 1 - Class 3 pupils, Group 2 - Class 8 students, 3 group - 3 rd year student of the Faculty II KhNMU.). For the study were used standard questionnaires Spielberger-Hanin and the Russian-language adaptation of the questionnaire Kimberly Young.

As a result of the study, we have the following results were found: in group №1 elevated levels of situational anxiety was observed in 5 children and computer addiction defined in 8, №2 in the group, these figures were 12 and 8, and in the group №3 - 8 and 5 respectively. In favor of solvency extended contact hypothesis is the fact that the mass fraction of the studied children and students with computer addiction among those who have been identified elevated levels of situational anxiety, Group №1,2,3 was 100%.

According to the research, the following conclusions:

1. The presence of a human computer addiction significantly increases the risk of increasing the level of situational anxiety, and thus leads to a decrease in its adaptive capabilities.
2. preventive measures to prevent computer addiction in children and adolescents within the family and the school should be carried out. Parents and teachers help children learn the real world. It is important that they are also taught children "safety rules" in the virtual world
3. The basic principle of easing and addiction treatment - replacement of: the formation of a full spiritual and intellectual life, live communication with parents and peers, attention and care, training on clubs and sports clubs, help with the work on the house.
4. It is necessary to develop a culture of dialogue with the computer. It is important to show the minor that using a computer is interesting to develop intellectually, to receive the necessary and useful information, engage in learning, etc.
5. The computer should be placed where it is more convenient to control the use of minors as well as to establish clear requirements for the use of computers and the Internet, and they always require strict compliance.
6. In order to preserve the health of the younger generation must be properly organize the workplace for the computer to constantly monitor

the posture, and regularly take breaks to rest and do physical exercises.

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THE LEVEL OF SOCIAL MALADJUSTMENT AND ANXIETY OF MODERN STUDENTS IN DEPENDING ON LOCATION OF LEARNING

Actuality: There is the highest risk of mental pathology manifestation in connection with a high level of load and stress in the student's age, which are important factors of emotional maladjustment.

The aim: To determine the level of students' mental health, to evaluate the level of anxiety and maladjustment, to compare the level of maladjustment in students of Kharkiv National Medical University (KhNMU) and Kharkiv National Automobile and Highway University (KhNAHU).

Matherials and methods: 120 healthy students of KhNMU (40 students from 1st, 3rd and 4th courses) and 80 students KhNAHU (40 students from 1st and 3rd courses); the questionnaires, which consisted of three questionnaires: general questions, the questionnaire "Evaluation of occupational maladjustment" and the Hospital Anxiety and Depression Scale. All students were divided into five groups: Group 1 – 1st year KhNMU, 2 – 3rd year, 3 – 4th year, 4 – 1st year KhNAHU, 5 – 3rd year.

Results: Only 10% of the students, which were surveyed, are practically healthy.The rest of students have chronic diseases.Only 8% of the students had a chronic pathology at the time of admission to the University. The level of anxiety is generally mediumin all groups, what reflects the effects on different stress factors. During the session, and before STEP-1 the level of anxiety is sharply higher (3rd year of KhNMU). A high level of anxiety have 42% of students, that indicatesthe emotional and behavioral symptoms of chronic stress. For 56% of first-year students is typical a medium level of maladjustment, which requires the assistance of specialists in carrying out rehabilitation. During training for STEP-1decreases the quantity of students with a satisfactory adaptation. We can observe it in a low professional adaptation of students (62,5%)of the 3rd year of KhNMU. For the 4th year students a low level of maladjustment (80%) is typical. It is also note worthy that in none group of students KhNMU do not decrease the level of anxiety

below 50%. In KhNAHU is the figure 32%.

The students whose parents are doctors, have significantly lower level of maladjustment and anxiety than the others.

So, the level of professional maladjustment of students of the 1,2 and 4 groups are fairly moderate, what requires the assistance of experts to conduct rehabilitation. The level of maladjustment of students 3 and 5 groups is low, but it is advisable to make an advisory work of specialists.

Conclusions: We can conclude that students are very contemptuous of their mental health, because less than 20% can be called «healthy». While the level of anxiety, depression and maladjustment is in the range that can be corrected, students need to take care of their health and future.

Polikov G.

QUALITY OF LIFE OF PATIENTS WITH NEUROSURGICAL DISEASES

Research advisor: Zelenska C., PhD
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Actuality: The result of the treatment process can be estimated taking into account a number of indicators. These include: life expectancy, quality of life, total and postoperative mortality. Quality of life is an integral characteristic of the physical, mental, emotional and social functioning of a person.

The aim is to evaluate the quality of life in patients with neurosurgical pathology, after the treatment process.

Materials and methods: We conducted a comprehensive survey of 17 patients aged 28 to 60 years old of both sexes who are in neurosurgical hospital in the postoperative period. Quality of life assessment was performed using a rating scale integrated indicator of quality of life (Mezzich I., Cohen N., Ruiperez M., Lin I., and Yoon G., 1999).

Results: Created 2 groups. The first (I) group consisted of 9 patients with severe restrictions on movement. This group included patients diagnosed with: Acute ischemic attack (7 persons); Meningioma (2 people). The second (II) group consisted of 8 patients with no traffic restrictions. In the II group included patients with diagnoses: Closed head injury (2 persons); Acute ischemic attack (3 persons); Osteochondrosis(3people).In the I group, the mean score of quality of life 5.6. According to obtained values

subscales: subjective well-being and satisfaction - 5.3 points; fulfillment of social roles - 5,2 points; the external conditions of life - 6.7 points. In group II, the average quality of life score was 7.8. According to obtained values subscales: subjective well-being and satisfaction - 7.5 points; fulfillment of social roles - 7,8 points; the external conditions of life - 7.6 points.

Quality of life was significantly reduced depending on the severity of traffic restrictions regardless of the patient diagnosis. In this case, the I group of patients come to the fore experiences regarding the physical and mental well-being, self-service and the independence of action, health, personal realization.

Conclusions: It is very important for patients with neurosurgical pathology, are in the postoperative period is the degree of restrictions on movement and deterioration of self-independence activities, health, personal realization. In our view, it is important counseling and provision of qualified psychological support for patients with different neurosurgical pathology in the pre- and postoperative period.

Praharaj Pooja, Nekrasova Nataliya

SPONDYLOGENIC INFLUENCE ON VERTEBRAL ARTERIES IN VERTEBROBASILAR INSUFFICIENCY

Research advisor: Nekrasova Nataliya MD,PHD
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DEPARTMENT OF NEUROLOGY № 2

Actuality: Vertebrobasilar insufficiency (VBI) describes condition where there is an insufficient delivery of blood flow via the vertebral or basilar arteries to the brain. The etiology may be based on the atherosclerosis, lipohyalinosis, vertebrobasilar artery dissection or embolic occlusion or by cervical osteophytes.When vertebral compression results from osteophytes,it leads to a condition called as osteochondrosis which is defined as narrowing of intervertebral space.Osteophytes located laterally and anterolaterally adjacent to vertebral artery play major role in occlusion.These patients are prone to ischemia and stroke.The symptoms include: vertigo (dizziness),visual disturbances(blurring, graying, double vision), drop attack (sudden falls),numbness,tingling and slurred or lost speech.

The aim: to assess spondylogenic influence on vertebral

arteries during rotational probes in patients with SVBI.

Materials and methods: We examined 98 patients (women - 56, men - 42) with manifestations of SVBI on the background of neurovascular and radicular syndromes of cervical osteochondrosis of a vertebral column. Patients from 18 to 40 years (median age of 28.5±3.8 years) were included in this study. All study subjects underwent functional X-ray examination of cervical vertebral column with bending and extension, cervical spine MRI. Patients underwent an ultrasonic dopplerography and transcranial dopplerography of cerebral vessels with functional loading tests (head rotations. We studied the dynamics of blood flow indices in suboccipital (VA3) segments of vertebral and basilar arteries (BA) on head rotation in our patients. Velocity was estimated initially in the patients' prone position with the head's neutral position, then on maximum rightwards rotation, and after that on maximum leftwards rotation.

Results: On the base of obtained data according to Doppler research, reduction of velocity of blood in posterior cerebral artery (PCA) by 32.9%, in vertebral artery (VA) by 23.1%, in basilar artery (BA) by 23.4% compared to corresponding parameters in control group were revealed. Also signs of vascular tone increase in the vertebobasilar system according to level of index pulsatility (PL) and resistance index (RL) on an average of 3.1 and 1.8 times were detected.The change in linear velocity on the degree of head rotation was significantly higher in patients with VBI. The group of patients had variations in the number of Vr changing cases by 30 % and more ($P < 0.05$).The significant differences were established during functional loading tests (head rotations) by defined reactivity ratio on rotational probe (RR). It was established that the RR for BA in patients with SVBN was raised comparing to control (31.0±12.2 % vs. 6.5±2.5 %) ($p \leq 0.05$), the same direction was detected while analyzing RR for VA (23.4±8.2 % vs. 5.1±2.2 %) ($p \leq 0.05$).

Conclusions: Obtained hemodynamic changes confirmed spondylogenic influence on vertebral arteries in patients with SVBI.

Tikhonova Olga, Kopytko Marina

IMPROVING THE QUALITY OF LIFE IN PATIENTS WITH COMBINED CRANIO-MAXILLO-FACIAL TRAUMA

Research advisor: Grygorova Irina, professor
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Actuality: The incidence of traumatic brain injury annually in Ukraine is in average 400-420 per 100 000. Currently acquired relevance the study of military traumatic brain injury(TBI), much of which occurs in the form of combined injury.

The aim of this work is the examination of patients with combined cranio-maxillo-brain injury, which were in Regional clinical hospital in neurological and maxillofacial departments.

Results: In the acute phase of mild TBI in 98% showed signs of asthenic syndrome, 94% - syndrome of vegetative dysfunction, 85% liquor-hypertensive syndrome, 74% of the detected autonomic dysfunction. In 60% of patients with mild TBI in the acute period, there was cephalgic syndrome. In addition to clinical and neurological examinations were conducted neuropsychological tests such as the Montreal scale, Schulte table and 10 words memorization test. The results of the tests showed mild cognitive impairment.

A frequent complaint in patients with combined cranio-maxillo-brain injury -dysphagia, and in this case, the non-steroidal antiinflammatory drugs intake is difficult. In this situation medication used "Movixicam", which, due to the form, dispersible in the oral cavity, prevent pain in this group patients without discomfort if swallowed.

Due to the direct and indirect neuronal damage in TBI activates the mechanisms of neuroplasticity that leads to a qualitative and quantitative restructuring of neuronal and glial elements. Pharmacological agents with neurotrophic, neuroprotective and anti-apoptotic effect, such as "Cerebrolysin", reduce the activation of microglia, releasing of proinflammatory cytokines and excitotoxins, which makes the mechanisms of neuroprotection and neuroplasticity more effective.

Conclusions: it is extremely important to improve the quality of life of patients with combined cranio-maxillo-brain injury: adequate pain relief with form of intake, and correction of cognitive and neuroplastic violations.

Ulyanovska M.

ANALYSIS OF MEDICAL UNIVERSITY STUDENTS` COMPETENCY IN THE PROBLEM OF EPILEPSY

Research advisor - Assoc. Prof. Maliarska N. V.
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Actuality: The epilepsy is a brain disease that is characterized by persistent tendency to development of epileptic attacks and neurobiological, cognitive, psychological and social consequences of this condition. There are 40-50 million registered patients with epilepsy in the world, according to the WHO. In Ukraine, the number of registered patients with epilepsy at the end of 2013 was 0.25% of the total population.

The aim: To investigate the competency of students in the problem of epilepsy and to determine the feasibility of a round table discussion of this topic.

Materials and methods: The study was conducted by anonymous survey of students of the medical university by means of a questionnaire containing 20 questions divided into blocks.

Results: The survey involved 110 respondents - students of 1-6 courses of higher medical schools of Ukraine (Lviv National Medical University preferably), including 75 (68.18%) women and 35 (31.81%) men. The question "Did you ever observe or even provide medical care during an epileptic seizure?" respondents answered as follows: 74 persons (67.27%) - " No, I had never seen", 19 (17.27%) – "Yes, I saw it once", 7 (6.36%) – "Yes, I provided help once", "4 (3.64%) – "Yes, I saw it several times", 6 (5.45%) - "Yes, I provided help several times". The question "Can you provide the first aid for seizures?" 44 persons (40%) answered "Yes" and 66 persons (60%) - "Not sure". The question "In your opinion, is an epilepsy an incurable disease?" 48 (43.64%) responded "No" and 62 (56.36%) "Yes." To the question "Do you agree that the epilepsy is a mental illness?" 60 (54.55%) responded "No" and 50 (45.45%) - "Yes". The question "Is it true that persons suffering from epilepsy often die during seizures?" 58 (52.73%) responded "No" and 52 (47.27%) "Yes". 17 individuals (15.45%) answered all four questions about the rules of first aid correctly. 101 person (91.82%) answered the question "Do you want to learn more about epilepsy?" "Yes".

Conclusions: Two thirds of interviewed people have never seen seizure attack. About half of the respondents made mistakes, answering important questions about epilepsy. 40% of respondents claimed that they know how to help

a person with seizures and only 15.45% were able to answer all questions concerning the rules for providing such help correctly. About 92% of respondents would like to learn more about epilepsy. Therefore, we consider it appropriate to organize the round table devoted to the problem of epilepsy in the university, paying attention to the issue of first aid for seizures, to debunk some common myths concerning this disease and to demonstrate some videos which can illustrate different types of attacks.

Zahora O.

INFLUENCE OF CENTRALLY ACTING MUSCLE RELAXANTS TO THE MUSCLE SPASM IN POST-STROKE PERIOD

Research Advisor: Candidate of Medical Sciences, Associate Professor Riznychenko O.
Department of Neurology № 1, Kharkiv National Medical Iniversity Kharkiv, Ukraine

Actuality: According to World Health Organization data, one of the main causes of disability is a stroke. Persistent motor dysfunction after the disease significantly reduces the quality of patients life, so the complex therapy initiated as early as possible helps for early recovery of patients.

The aim: to compare the effect of central muscle relaxants to the occurrence of undesirable muscle weakness.

Material and methods: the study included 8 patients aged 55-63 years who had a history of ischemic stroke: 3 patients - in the left cerebral artery pool, 5 - in the right cerebral artery pool. After 3 months of combined therapy in post-stroke period muscle the relaxant drug with the active substance tolperisone in the initial dosage of 50 mg two times a day for reducing muscle tone was used for 4 patients. Another half of patients (4) as a muscle relaxant drug was assigned the preparation with the active ingredient tizanidine in a dosage of 2 mg three times a day. Both groups received drugs for 2 weeks.

Results: In all cases positive dynamics was noted as decrease of muscular spasticity. The group of patients who accepted pills with the active ingredient tolperisone also noted an expressed general muscle weakness, which significantly reduces the efficiency of restorative physiotherapy.

Conclusions: The research has shown that in order to reduce muscle spasticity after stroke it is preferable to use drugs of tinazidin as they have

a good muscle relax effect and do not cause undesired muscle weakness in contrast to tolperisone.

Zelenska K.O.

ANALYSIS OF STRESSFUL SITUATIONS THAT LEAD TO DEVELOPMENT OF AUTO-AGGRESSIVE BEHAVIOR IN PATIENTS WITH DEPRESSIVE DISORDERS

Research advisor – Professor Kozhina H.M.
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Actuality: Suicidal behavior is the most life-threatening form of auto-aggressive activity, since its aim and motive is action leading to a voluntary death. Suicide is an extreme form of suicidal behavior, implying conscious voluntary actions aimed intentional achieving of own death and leading to it. The constant increasing of the prevalence of autoagressive behavior, particullary in suicide cases and suicide attempts among the population of Ukraine in recent decades poses suicidology in some of the most important areas of research for the Ukrainian psychiatrists.

The aim: To identify the major stress events entailing suicidal behavior in young persons.

Materials and Methods: 96 patients of both sexes aged 18 - 35 years with signs of suicidal behavior were surveyed. The methods were used: clinical, psychopathological, clinical-anamnestic,
psychodiagnostic using the hospital anxiety and depression scale (HADS) (Zigmond A. S., Snaith R. P., 1983); Clinical Anxiety Scale and the Hamilton Depression (M. Hamilton, 1967), adapted to the ICD-10 (GP Panteleyev 1988) (HDRS); Berg-scale Montgomery (Montgomery SA, Asberg M., 1979), adapted to the ICD-10 (Guelfi GD, 1993) (MADRS); method "of suicide risk determining" (Gavenko VL, Sinayko VM, Sokolov IM, 2001); "Self-rating test of auto-aggressive predictor severity" (Pilyagina GY, 2004), statistical.

Results: thus, the analysis of the data allowed us to determine the main stressful situations leading to the development of suicidal behavior in young adults with depressive disorders: the loneliness, the loss of a beloved one, divorce (39.2% women and 34.3% men), serious financial difficulties, unexpected collapse of property, loss of a job (49.2% women and 64.3% men), forced dramatic change of life stereotype (16.9% and 11.2%, respectively), family (58.3% and 64, 2%) and duty (5.9% and 5.6%) relation conflicts, cruel treatment with persons who commited suiside (52.8% and 46.1%, respectively), the situations with long-term mental stress (12.3% of

women and 7.9% men), poor physical health, the presence of disabling disease (11.3% of women and 6.3% of men).

Conclusions: The next stressful situations that lead to suicidal behavior were identified: the frustration of basic needs, narrowing of the cognitive content and dominance of mental trauma in the mind, the loss of life meaning. Determening of a trigger mechanism of autoagressive behavior is one of the main components in predicting the risk of suicide.

Korovina L. D., Kondratenko A. P.

THE COMPONENTS OF THE DYNAMICS OF BODY WEIGHT IN PATIENTS WITH PARANOID SCHIZOPHRENIA.

Schizophrenia - one of the most severe mental illnesses. Significant advances in the treatment of this disease appeared with the discovery of neuroleptics (antipsychotic drugs). Initially, the practice of first-generation drugs have been introduced. But they not only showed its activity towards the symptoms. Antipsychotics caused significant complications - neuroleptic syndrome.

Pre-emptive use of atypical antipsychotics based on their impact on the positive and negative symptoms of schizophrenia, it is extremely rare appearance of neuroleptic syndrome. At the same time, in recent years there are many works devoted to another type of side-effects - neuroendocrine effects.

In our research we followed the impact of various second generation antipsychotics on weight gain of women with paranoid schizophrenia with complex treatment.

The study showed that in the first year of therapy, the highest weight gain was while taking amisulpride. Risperidone caused an average increase in weight in the first year, but it progressively increased throughout the time of therapy and reached a level of obesity. Quetiapine drugs cause weight gain a few kilograms per year, with a mass of stabilization in the second year of therapy.

Change one antipsychotic drug to another is not always result in weight loss. When changing risperidone to quetiapine, weight loss noted only in patients treated with antipsychotic in combination with psychorehabilitation program.

Thus, we think that an increase in body weight in patients with paranoid schizophrenia is associated with prolonged use of second-generation antipsychotics. But the development of abdominal obesity depends on a complex of factors, including the level of physical and social activity, the

severity of the negative psychic symptoms (primary and secondary), the possibility of self-realization and the availability of support.

Hmain S., Kozhina H.M.

INFLUENCE OF ART THERAPY IN COMPLEX TREATMENT ON THE QUALITY OF REMISSION IN PATIENTS WITH RECURRENT DEPRESSIVE DISORDER

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Introduction. According to studies done in recent years regarding the treatment of patients with recurrent depressive disorder, a shift of interest from studies evaluating the effectiveness of therapy to the study of remission is seen. According to the literature, complete remission occurs in only 40-50% of patients, in other cases there is residual symptoms.

Aim. Evaluating the effectivness of art therapy in treatment in patients with recurrent depressive disorder on the quality of remission.

Methods: The study involved 135 patients – 60 –male and 75 female patients aged from 18 to 30 years old. The main group of patients apart the combined treatment also participated in group art therapy with the use of drawing techniques, while the control group – statutory standard therapy.

We used clinical, psychopathological, psychodiagnostic and statistical methods.

Results. The results of the effectiveness of art therapy in complex treatment in patients with recurrent depressive disorder is detected primarily in reducing of the level of anxiety at the early stages of treatment, as well as in reducing of the severity of anhedonia and improving the quality of life in remission period.

Conclusion. These results support the use of art therapy in treatment in patients with recurrent depressive disorder during period of active treatment, and after achieving clinical remission contributes to achieving and maintaining high-quality and stable remission with full restoration of quality of life and social functioning.

OBSTETRICS AND GYNECOLOGY

Alaya Lamia

MOLECULAR BIOLOGICAL FACTORS OF GENITAL PROLAPSE IN PERIMENOPAUSAL WOMEN WITH CONNECTIVE TISSUE DYSPLASIA AND THEIR CORRECTION

Research advisor:Prof. Scsherbina Mykola
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Department of obstetrics and gynecology №1

Actuality: The genital prolapse, as part of the gynecological pathology, according to different authors it is from 1.7 to 28%, particularly among women older than 40 years this figure rises to 34.7%. In 85.5% of patients with genital prolapse the following symptoms occur: urinary incontinence in 70% of patients, defecation disorders in 36.5% and dyspareunia in 53.3% patients.According to modern research, the leading cause of prolapse is the dyspalsia of the systemic connective tissue dysplasia (CTD), CTD is common in 48% cases among women with genital prolapse. CTD is a multisystemic pathology with a progressive course, which is charcterised by the defects in the protein synthesis or catabolic mulfunction of the components of the extracellular matrix of the connective tissue. Matrix metalloproteinases (MMPs) play a critical role in regulating the homeostasis of the extracellular matrix. MMPs are proteolytic enzymes involved in the degradation and remodeling of the connective tissue. Vitamins, trace elements involved in collagen formation are also played an important role in the collagen formation processes

The aim :The aim of the study was to investigate the molecular biological factors associated with the genital prolapse in menopausal women with connective tissue dysplasia.

Materials and methods: We examined 65 women in perimenopause with genital prolapse of 1-2 stages. The patients were divided into two groups according to age and the presence of phenotypic signs of CTD and the applied treatment. Clinical characteristics and the estradiol concentration of the matrix metalloproteinase 9 (MMP-9) activity in serum were determined.

Results: Women in both groups with clinical signs of genital prolapse showed a significant ($p < 0,05$) decrease in the estradiol concentrations compared to the physiological norm. Thus, in the group 1 of patients with CTD symptoms the average estradiol level was 0.13 ± 0.014 nmol/l and in group 2 it was

0.27 ± 0.035 nmol / l. The elevated levels of MMP-9 were detected in the group CTD symptoms (215,11±17,3ng/ml) compared to the norm value determined among women in perimenopause (100,0±6,1ng/ml), which confirms pathogenic role of metalloproteinases in the restructuring on the connective tissue.

Conclusion: Patients with genital prolapse and connective tissue dysplasia show increase collagen destruction with the low levels of estradiol. The data obtained in this study allows us to consider the MMP-9 activity dysfunction and low level of estrogens as the risk factors for this disease in perimenopausal women. Promt response to the hormonal disorders together with the metabolic therapy significantly increases the effect of preventative and therapeutic interventions for genital prolapse.

P. A. Alieva, S. E. Malikova, I.V.Zhuk

IMPROVEMENT OF TREATMENT EFFICIENCY IN CHRONIC INFLAMMATORY DISEASES OF UTERINE ADNEXA

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Actuality. Inflammatory diseases of the female reproductive system prevail among gynecologic abnormalities and their frequency comprises up to 70%. Chronic genital and extragenital conditions remain most challenging in diagnosis and differentiation, as their treatment is associated with specific pathogenic mechanisms of their development. The relevance of this problem is conditioned by a number of significant long-term consequences for women's health, such as secondary infertility, menstrual disorders (MDs), ectopic pregnancy and pelvic pain syndrome. Chronic inflammatory diseases of the pelvic organs (CIDPO) should actually be considered as polysystemic disorders involving complexes, associated with many adaptation processes in the female body.

The aim of the study implied examination of reproductive age patients, diagnosed with CIDPO, who underwent in-patient treatment at gynecological department of Kharkiv Maternity Hospital No.1 in the years 2014-2015.

Materials and methods. Main clinical symptoms included pain (65.6%), dysmenorrhea (51.1%), dyspareunia (27.9%), MDs as

hyperpolymenorrhea (34.4%) and oligoopsomenorrhea (14.4%).

Results. Bacteriologic findings in patients with CIDPO revealed different types of coccobacillary microflora, chlamydia, ureaplasma, with the predominance of microbial associations in most cases. Thiopoetin class of drugs (Glutoxim) was given priority in immunocorrective therapy.

Conclusion. Studies have shown that immunocorrective treatment results in a rapid and significant reduction of pain syndrome, normalization of regulatory function of sympathetic-adrenal system and MDs, improvement of hemodynamic parameters and elimination of endothelial dysfunction, which substantially improves the results of treatment and prevents relapses of the disease in future.

Arsentyeva Alina

CURRENT METHODS OF CERVICAL PREGNANCY DIAGNOSIS

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Actuality: Cervical pregnancy (CP) is a rare form of ectopic pregnancy, which occurs at a frequency of 0.1-0.4% cases. CP development is conditioned by medical and surgical abortions, pelvic inflammatory diseases, uterine tumors and in vitro fertilization. CP is diagnosed when a trophoblast attaches to the cervical canal below the internal os. The fertilized egg grows into the muscle of the cervix to form a single hypervasculated complex, due to lack of decidua in the cervical canal. Therefore, patients develop profuse bleeding in disruption of the integrity of the gestational sac.

Materials and methods: The study involved the assessment of medical histories of women with ectopic pregnancy who underwent in-patient treatment at gynecological department of Kharkiv Maternity Hospital No.1 for the last 5 years.

Results: The assessment of current methods of CP diagnosis provided in the framework of the study showed that the diagnosis is based on clinical examination findings, human chorionic gonadotropin (hCG) level in blood, ultrasound (US), using color Doppler mapping (CDM) and magnetic resonance imaging (MRI). The study revealed that hCG level in blood does not correspond to CP gestational

period. Increase in hCG concentration occurs slower than in normal pregnancy. Ultrasound examination with transabdominal and transvaginal probes determined the location and size of the uterus, identified myometrium structure, the presence or absence of myomatous nodules, endometriosis as well as localization and size of the gestational sac. Ultrasound and CDM of blood flow helped to visualize the location of chorionic vessels, evaluate vascularization of the uterus and its cervical division. MRI tomograms (1 case) clearly identified the margins between the chorion and cervical stroma. Sagittal and transverse sections provided reliable visualization of the gestational sac and helped to detect its size.

Conclusions: Thus, complex cases of differential diagnosis, especially in intact CP, traditional clinical methods and determination of hCG in blood should be accompanied by diagnostically crucial up-to-date examination techniques, such as ultrasound with CDM and MRI of the pelvic organs.

Blagoveshchenskiy R., Reznik M. A., Rakityanskiy I. Yu., Rubinskaya A. N.

HERPES VIRUS INFECTION INFLUENCE ON INTRAUTERINE STATE OF THE FETUS

Research advisor: Tuchkina Irina, Doctor of Medical Science, Professor
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Actuality: Intrauterine herpes virus infections are among the most common infections. Numerous studies have shown that by the age of 18 years more than 90% of the world population gets infected with one or more of the currently known strains of herpes viruses. The presence of class Ig G maternal antibodies was shown to have little effect on the developing fetus. Infected mothers more frequently give birth to a healthy child while the greatest threat in terms of perinatal loss is presented by a primary infection during pregnancy. Numerous studies suggest the possibility of transplacental infection of fetus with herpes virus infections.

The aim: To analyze the effect of herpes virus infections on the state of the fetus and course of labor.

Materials and methods: The course of pregnancy and delivery was assessed in 20 women with herpes virus infection who underwent follow-up treatment at Kharkiv Maternity Hospital No.1. The study also involved determination of the functional state of fetoplacental

complex and the course of labor. These pregnant women were found to have Ig M, A to herpes virus infections. Somatic, obstetric and gynecological status was assessed in all the patients by conventional methods of examination. The condition of the fetus and changes in the placenta were mainly identified by biometrics of the fetus, thickness and structure of the placenta, the quantity of amniotic fluid and cardiotocography. Blood flow in vessels of mother-placenta-fetus system was determined by Doppler study.

Results: The study showed that intrauterine growth retardation was diagnosed in 15% of pregnant women. Signs of intrauterine viral infection included oligohydramnios in 58% and placental hypoplasia in 46% of cases. Cardiotocography demonstrated episodes of deceleration, reduction in frequency and amplitude of oscillation, indicating chronic fetal hypoxia. Biophysical profile of fetus according to Vintzeleos et al. was estimated at 6-7 points in 16% and 5 points or below in 4% of pregnant women. Disruption of fetoplacental blood flow at compensatory stage was detected in 37.4% of pregnant women, in 10.7% at subcompensatory stage and in 3% at decompensatory stage. Decompensated disruption of fetoplacental blood flow was the indication for operative delivery. Cesarean section was performed in 7 (35%) of the examined pregnant women. Delivery in the remaining patients was characterized by premature discharge of amniotic fluid in 25%, meconium-tinged amniotic fluid in 10% and uterine inertia in 22%.

Conclusions: Thus, it can be concluded that herpes virus infections adversely affect the condition of the fetus and disrupt normal course of delivery.

Borodai I., Molchaniuk D., Ponomarenko T.

VIRUS AGENTS AS FACTORS OF HABITUAL MISCARRIAGE

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Actuality. Almost there are no women with habitual miscarriage who haven`t any virus persistence. In big amount of cases these women have a combination of different viruses. It`s connected with the peculiarities of the patient's immune system. And generally these patients haven`t evident clinical manifestations. Here we have a vicious circle: the immune system leads to the persistence of viruses and these viruses lead to the activation of bacterial flora, to the appearance of autoimmune disorders, which are the causes of abortion. So the timely diagnostics and treatment of the most common virus infections is important for women with habitual miscarriage.

The aim was to determine the most common virus agents, which persist in women with habitual miscarriage, and their role in investigated pathology.

Material and methods. We studied 35 cases of women with habitual miscarriage. These women were examined for persistence of herpes viruses (herpes simplex virus, cytomegalovirus) and enteroviruses (Coxsackie A, B). The control group consists of women with normal pregnancy.

Results. In our research we identified that virus Coxcackie A have 95% of patients (16% in control group), Coxsackie B – 73% (in control – 8%), cytomegalovirus – 61% (in control – 26%), herpes simplex – 55,5% (in control – 25%). Enteroviruses in acute disease in early pregnancy cause the death of the embryo or fetus, the spontaneous miscarriage, prematurity. The relationship of enteroviruses with the development of autoimmune diseases is proved: circulating immune complexes, their long presence in the bloodstream, cause changes in the blood vessels, including placenta. Practically all patients with cytomegalovirus had disturbances in reproductive system: defective luteal phase because of hypofunction and hyperandrogens, chronic inflammatory diseases of genitals, different defects of uterine development, cervical incompetence, autoimmune disorders. Herpes simplex virus is the factor of vulvovaginitises, chronic endometritis, cervical erosions.

Conclusions. Thus, almost all women with habitual miscarriage have different virus agents and even the combination of viruses. It can be the factors of miscarriage so the

timely diagnostics and treatment of these infectious diseases is certainly important

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Cherniakova A.E., Karmazina I.S.

ROLE OF CERVICAL CANAL SCREENING IN DIAGNOSTICS AND THERAPY OF CERVIX UTERI PATHOLOGY

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Actuality: Cervix uteri is unique organ which possesses appointed functional independence and supplies control of biological substances, particles and infectious agents movement into the uterine cavity and backward. During pregnancy cervical canal (CC) protects the fetus and its envelopes from the contact with the external environment, and during delivery CC supplies the partial loading mode of fetus yield from the uterus. Inflammatory and neoplastic diseases of cervix uteri cause the injury of the CC epithelium. Recent time the intraepithelial changes of CC are accepted as main reason of the uterine neck tumor (UNT) which has the rising trend overall the world.

The aim of our research was the analysis of potential abilities of CC opportunistic screening in the diagnostics of CC diseases.

Materials and methods: The analysis of 37 women (from 20 to 64 year old) examination results has been done. Screening research included visual and colposcopy examinations, cytological examination of vaginal smears, and identification of vaginal microflora by microscopic, cultural and molecular methods.

Results: The cytological investigations of smears from the surface of uterine neck and cervical canal revealed that 6 patients (16.2%) only had no pathological changes. Signs of inflammation were found in 19 patients (51.4%): cervicitis – in 5 (13.5%), colpitis – in 3 (8.1%), cervicitis and vaginitis – in 13 (35.0%) women. Ectopic columnar epithelium and transformation zones were found in 14 examined patients: 4 – without inflammation, 10 – associated with inflammation, 5 – with inflammation caused by human papilloma virus (HPV), 1 – with erosion tissue injuring. In addition, LSIL was revealed in 2 patients, epithelium atrophy in menopause – in 6 patients, and hyperkeratosis of squamous epithelium – in 1 woman.

The colposcopy examination revealed that in 97.3% cases of epithelium ectopy was accompanied by inflammation. In 24.3% of cases the atypia of squamous epithelium was associated with HPV independently from the type of virus, in 10.8% of cases it was caused by other factors. Infections screening allowed to define the following etiological microorganisms causing genital infections: HPV – 28.5%, Gardnerella vaginalis – 12.5%, Chlamydia – 9.6%, Mycoplasma – 8.9%, HSV – 8.7%, Candida albicans – 8.1%. We would like to point out the asymptomatic clinical course of genital infections with the leading role of HPV and Gardnerella vaginalis as etiological agents.

Conclusions: The results of the research indicate that the chronic inflammation is the most often reason of the CC pathology. As a usual, its significant etiological factor is asymptomatic mixed-infection. Opportunistic screening of CC comprising colposcopy, cytological and microbiological examinations is the highly informative method of early detection and identification of CC pathology.

Chernova I.G, Naumova E.N.

ADENOMYOSIS TREATMENT IN WOMEN OF REPRODUCTIVE AGE

Research Advisor: Tkacheva Olga, PhD
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Actuality. One of the most debated problems in modern gynecology is the progression of endometriosis after hormonal treatment. Surgical treatment, in spite of the improvement of techniques (use of endoscopic surgery, electrocautery, laser) neither ensure complete elimination of endometrial lesions, nor prevent recurrence of the disease. Nowadays the major role is given to phytonutrients (indole-3-carbinol) – plant derived substances capable to block the proliferative activity at the level of the target cells.

The aim. Clinical valuation of the effectiveness of the drug indole-3-carbinol and the optimization of medical therapy among women with adenomyosis in the reproductive age.

Materials and methods. We examined 20 women with adenomyosis in reproductive age. The average age of patients was 36.5 + \ - 1.5 years. All patients received indole-3-carbinol 200 mg 2 times a day for 3 months. Treatment efficacy was evaluated on the basis of medical history, clinical and

ultrasound data after 3 months from the beginning of the treatment.

Results. During of the analysis of clinical symptoms, the patients complained of general weakness, undue fatigability, decreased of working capacity – 10 woman (50%). Menstrual dysfunctions were the following character: hyperpolymenorrhea in 14 cases (70%), acyclic bleeding in 8 cases (40%), algodismenorrhea in 16 cases (80%), pelvic pain without association with menstruation in 4 cases (20%), dysuric syndrome in 5 cases (25%).

Analysis of the anamnestic data detected the high level of somatic diseases: arterial hypertension in 3 patients (15%), chronic diseases of hepatobiliary system and gastrointestinal tract in 12 cases (60%), varicose disease of lower extremities venous in 4 cases (20%), pathology of thyroid in 2 cases (10%), obesity in 4 cases (20%), fibrocystic breast mastopathy in 6 cases (30%), anemia in 5 cases (25%).

During of the ultrasound examination of the size of uterus we got the following results: in 11 patients (55%) the uterus corresponded to the size of 5 weeks of pregnancy, in 7 patients (35%) – 6 weeks of pregnancy, in 2 patients (10%) – 8 weeks.

Evaluation of the effectiveness of monotherapy by indinol-3-carbinol conducted under clinical symptoms and results of ultrasound scan. After the 3 months of clinical examination was noted the improvement of the state of 40% women: metrorrhagia – 50%, hyperpolymenorrhea – 40%, algodismenorrhea – 55%, pelvic pains – 50%. We study the corpulence of the wall of uterus: before treatment – 30 mm, after treatment – 26 mm. So, the clinical effect of the monotherapy by indinol-3-carbinol was 50% without any negative effects.

Conclusions. At the modern stage of the treatment of adenomyosis, the most pathogenetic based therapy is acting on the processes of regulation of cell proliferation, invasion and apoptosis. It's expedient to use them for the initial manifestations of adenomyosis in women of reproductive time.

Douglas B. I., Alabo Y. J.

ABORTION'S AFTERMATH. WHAT IS ABORTION?

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Actuality. Abortion is the ending of pregnancy by removing a fetus or embryo from the womb before it can survive on its own. An abortion which occurs spontaneously is also known as a miscarriage. An abortion may be caused purposely and is then called an induced abortion, or less frequently, "induced miscarriage". The word abortion is often used to mean only induced abortions. When an abortion (or miscarriage) takes place by itself, without any outside aid, it's called spontaneous abortion. Types of abortion: induced abortion and spontaneous abortion.

Materials and methods. Numbers and rates of induced abortions were estimated from four sources: official statistics or other national data on legal abortions in 57 countries; estimates based on population surveys for two countries without official statistics; special studies for 10 countries where abortion is highly restricted; and worldwide and regional estimates of unsafe abortion from the World Health Organization.

Results. Approximately 26 million legal and 20 million illegal abortions were performed worldwide in 2015, resulting in a worldwide abortion rate of 35 per 1,000 women aged 15–44. Among the sub regions of the world, Eastern Europe had the highest abortion rate (90 per 1,000) and Western Europe the lowest rate (11 per 1,000). Among countries where abortion is legal without restriction as to reason, the highest abortion rate, 83 per 1,000, was reported for Vietnam and the lowest, seven per 1,000, for Belgium and the Netherlands. Abortion rates are no lower overall in areas where abortion is generally restricte

Dynnik Oleksandra, Nebesna Hanna

FEATURES OF SONOGRAPHIC INDICES OF THE SMALL PELVIS ORGANS IN GIRLS WITH ABNORMAL UTERINE BLEEDING

Research advisor: Prof. Mertsalova Olga
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Kharkiv National Medical University
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Actuality: Negative tends, preserved in regard to the reproductive capacity of adolescent girls, testify to the fact that development and introduction of the current technologies make it possible to increase the effectiveness of prevention and treatment of gynecological diseases in this group of patients.

The aim:Our study was designed to determine the characteristic features of echosonografic indices of the internal genitalia in female adolescents with abnormal uterine bleeding (AUB).

Materials and methods: Ultrasound parameters of the internal genitalia were estimated in 161 patients with AUB which were divided into three groups depending on the BMI. Gr. I included 65 patients with the BMI standard values, gr. II comprised 58 girls with overweight, and gr. III - 38 patients with body weight deficiency.

Results. Physiological echosonografic parameters were observed much less frequent in adolescents from gr. II, but an increased size of the uterus (48.3% v. 38.2% in gr. I and 34.2% in gr. II, P <0.01) has been registered in them reliably more frequent. This thickness of the endometrium has been observed with similar frequency in all three groups, irrespective of the disease course (gr. I- 60.9%, gr. II - 60.3%, and gr. III - 68.4%).

Comparative analysis of the ovarian echosonograms in the groups of our patients has shown no significant difference between them with respect to their size. But it has turned out that follicles with the diameter more than 10 mm visualized in the ovarian echostructure in a certain percentage of girls, and in some of our adolescents it reached 30 mm or more (this is regarded as ovarian cysts). The proportion of girls with persistent follicles and/or ovarian cysts in gr. I amounts to 33.9%, in gr. III - 44.7%, and in gr. II -20.7%, which is significantly less frequent than in the other groups (p1 <0,03; p2 <0,001).

Analysis of the uterus size in girls with the absence or presence of insulin resistance has found that only in patients from gr. I and III with a rise in the level of immunoreactive insulin and the HOMA index the

percentage of patients with an enhanced size of the uterus (gr. I- from 22.2% in patients without IR to 60.7% with IR, p <0,001; gr. III - from 26.7% without IR to 66.7% with IR, p <0,001) is increased significantly. We can assume that hyperinsulinemia at puberty may stimulate the growth through the direct anabolic effect of insulin, that is to contribute to an increase in the uterus size in girls without overweight.

Attention is attracted by the fact that endometrial hyperplasia in almost half of patients from gr. I and II is combined with hyperinsulinemia (gr. I - 42.3% and gr. II - 50%).

Conclusion: Thus, echosonography in childhood provides sufficient information on the small pelvis organs and is an important method in the diagnosis of the reproductive system pathology.

Fedziukova L.

SURGICAL DELIVERY IN MODERN OBSTETRICS

Research advisor: Korbut I., Candidate of Medical Science, Associate Professor
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Actuality. The most common methods of operative delivery with a live fetus is a cesarean section and vacuum -extraction of the fetus. Indications for cesarean section is much wider than for vacuum extraction, but through the work we considered acute fetal hypoxia and birth weakness.

Aim. Compare the effect of mode of delivery on the condition of the mother and child.

Matherials and methods. Statistical processing performed with the help of applications Microsoft Office: quality - Me (25; 75 percentile), quantitative - n, p ± sp%, statistically significance p <0.05 features. It was formed two groups of women (A - Caesarean section n = 36, B - vacuum extraction n = 33).

Results. Patient in group B were significantly more likely primigravidas ($\chi 2$ =2,93, p <0.005) and nulliparous ($\chi 2$ = 2,38, p <0.02). Women in both groups had similar gynecological history, but pregnancy loss were diagnosed only in patients deliveried with caesarean section.Blood loss in group A was 663 ±78 ml in group B - 317±52 mL, Z =-6,9, p<0,001.

White blood cells in the 3-4e day after delivery of 11 * / l and more in group A -58,3±8,2%, group B -72,7±7,6%. In women with cesarean section after delivery leukocytosis was more pronounced than in women with vacuum extraction.

Assessment of children Apgar after 1 minute of life in group A - 8(8,8), in group B - 7(6.8) b; After 5 minutes in group A- 8 (8.9) b, in group B - 8(7.8)

b. When using the vacuum extraction children born in hypoxia significantly higher ($\chi 2$ =3,0, p <0,005).

Premature rupture of membranes in Group 1 was at 63,9 ± 8,0% people, in group 2 - 42,4 ± 8,6%. Green was the color of amniotic fluid in 13 patients (36,1±8,0%) and 9 (27,3±7,6%) patients, respectively.

Weight at birth in group A - 3435g (3190; 3753) g, in group B - 3500g (3330; 3760). For 6-7 days not reached birth weight in group A 41,7 ± 8,2%, in group B-36,4 ±8,37%.

Conclusions. Thus, with similar indications for operative vaginal delivery, maternal safer mode of delivery is a vacuum extraction of the fetus. For more optimal fetal cesarian section. Children born with hypoxia less, more important adaptation fetus than the weight loss during the first day.

O. V. Gnatenko, S. V. Kebashvili

CLINICAL PRESENTATION, DIAGNOSIS AND TREATMENT OF ADNEXAL TORSION IN CHILDREN AND ADOLESCENTS

Research advisor: Tuchkina I.
Department of Obstetrics, Gynecology and Children Gynecology
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Actuality. One of the most frequent causes of children admission to the surgical department is conditioned by abdominal pain, which can often result from gynecological diseases, particularly adnexal torsion (in 2-3% of cases). Adnexal torsion develops much more commonly in children and adolescents than in adult women, which is due to anatomical features of internal genital organs (small size of the uterus, a relatively high location of the ovaries in the small pelvis), physiological characteristics (overload of the bladder, juvenile constipation, overactive intestinal peristalsis), as well as more mobile lifestyle inherent to this age group.

The aim was to study the incidence of adnexal torsion in children and adolescents.

Materials and methods. The study involved clinical and statistical analysis of medical records of patients with diagnosed adnexal torsion, who underwent inpatient treatment at gynecologic department of Kharkiv Regional Children's Clinical Hospital from 2010 to 2016.

Results and their discussion. The assessment of the records for the period under investigation showed that adnexal torsion was diagnosed in 30 patients, including 11 girls under 12 years of age and 18 adolescents. Solitary torsion of the ovary was observed in 12 patients,

torsion of an ovarian cyst - in 10, torsion of a paratubal cyst - in 5, torsion of the ovary and fallopian tube - in 2, torsion of ovarian teratoma - in 1. The treatment included 28 surgical operations by laparoscopy and 2 operations by laparotomy. Organ-preserving surgical treatment implied determination of the state of adnexal tissues: patients with intact blood flow and without necrotic changes underwent detorsion while adnexa with absent blood flow and presence of necrosis were removed.

Conclusion. All cases of suspected adnexal torsion in children and adolescents need to be comprehensively diagnosed. Minimally invasive organ-preserving laparoscopic intervention should be considered the method of choice.

O. V. Gnatenko, S. V. Kebashvili

CLINICAL PRESENTATION, DIAGNOSIS AND TREATMENT OF ADNEXAL TORSION IN CHILDREN AND ADOLESCENTS

Department of Obstetrics, Gynecology and Children Gynecology
Scientific supervisor: Doctor of Medical Science, Professor I. A. Tuchkina
Kharkiv National Medical University
Kharkiv, Ukraine

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Hasan A.

ROLE OF THE METHODS OF OVUM EXTRUSION IN THE PREVENTION OF SECONDARY TUBOPERITONEAL INFERTILITY DURING ECTOPIC PREGNANCY TREATMENT

Research Advisor: PhD, Associate Professor Saltovsky A.
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Kharkiv, Ukraine

Actuality: Method of extrusion of the ovum (MEO) has been successfully used in the treatment of ectopic pregnancy (EP) progressing in terms of up to 6 obstetrical weeks. At clearly less traumatization of fallopian tubes (FT), this method allows preserving FT in most cases, but the assessment of delayed MEO outcome is debatable.

The aim of the work was to determine the frequency of occurrence of FT occlusion and pregnancy after EP treatment by MEO in patients with a single stored FT.

Materials and Methods. Analysis of 34 medical records of patients with EP treated by uncomplicated organ-preserve surgery by the MEO on a single FT in the term up to 6 obstetrical weeks was carried out. Postoperatively, all patients obtained the therapeutic and prophylactic courses of complex antibacterial and anti-inflammatory therapy. The results of the research were clinically evaluated by the degree of tubal patency according culdoscopy in the late postoperative period and metrosalpingography (MSG) at 6 months after surgery as well as by the percentage of pregnancy in these patients after EP.

Results of the study. Development of FT occlusion was

observed in 20.6% of patients (7 patients), limiting of the contrast agent spreading in the abdominal cavity was in the 11.8% of cases (4 patients). Pregnancy occurred in 20 cases: intrauterine in 17 patients (50%), ectopic in 3 patients (8.8%).

Conclusions. Thus, the obvious high effectiveness of this method makes it preferred in laparoscopy on the progressive EP, and in the future, perhaps, the "gold standard" in treatment of EP with simultaneous prevention of tuboperitoneal infertility.

P. A. Alieva, S. E. Malikova, S.S. Filatova, T. A. Ivanova

IMPROVEMENT OF TREATMENT EFFICIENCY IN CHRONIC INFLAMMATORY DISEASES OF UTERINE ADNEXA

Research advisor: Tuchkina Irina, Doctor of Medical Science, Professor
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Actuality: Inflammatory diseases of the female reproductive system prevail among gynecologic abnormalities and their frequency comprises up to 70%. Chronic genital and extragenital conditions remain most challenging in diagnosis and differentiation, as their treatment is associated with specific pathogenic mechanisms of their development. The relevance of this problem is conditioned by a number of significant long-term consequences for women's health, such as secondary infertility, menstrual disorders (MDs), ectopic pregnancy and pelvic pain syndrome. Chronic inflammatory diseases of the pelvic organs (CIDPO) should actually be considered as polysystemic disorders involving complexes, associated with many adaptation processes in the female body.

Materials and methods: The study implied examination of reproductive age patients, diagnosed with CIDPO, who underwent in-patient treatment at gynecological department of Kharkiv Maternity Hospital No.1 in the years 2014-2015. Main clinical symptoms included pain (65.6%), dysmenorrhea (51.1%), dyspareunia (27.9%), MDs as hyperpolymenorrhea (34.4%) and oligoopsomenorrhea (14.4%). Bacteriologic findings in patients with CIDPO revealed different types of coccobacillary microflora, chlamydia, ureaplasma, with the predominance of microbial associations in most cases. Thiopoetin class of drugs (Glutoxim)

was given priority in immunocorrective therapy.

Conclusions: Studies have shown that immunocorrective treatment results in a rapid and significant reduction of pain syndrome, normalization of regulatory function of sympathetic-adrenal system and MDs, improvement of hemodynamic parameters and elimination of endothelial dysfunction, which substantially improves the results of treatment and prevents relapses of the disease in future

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Jacobs Y., Romanenko A.A.

PRIMARY CESAREAN DELIVERY INCREASES RISK IN THE NEXT PREGNANCY

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Actuality. A Caesarean section, also known as c-section is a surgical procedure in which incisions are made through a mother's abdomen and uterus to deliver one or more babies.

The aim to analyze the difference and risk in second pregnancy outcomes between women who had a previous caesarean delivery and those who had a previous vaginal delivery.

Materials and methods. Population based retrospective study of all second birth, comparing outcomes of 30 women who underwent a caesarean delivery for the first birth with 800 who underwent a vaginal first birth. The statistical analysis adjusted for age, indigenous status, smoking status, pregnancy interval, medical conditions (hypertension, diabetes or asthma), obstetrics complications, gestational age and obstetrics history (ectopic pregnancy, miscarriage, still birth or termination).

Results. More women who had previous caesarean delivery were 30 years or older compared to those who had a previous vaginal delivery. Conversely, fewer women in the previous cesarean delivery group were smokers or had pregnancy interval less than 15 months. Women who delivered their child by cesarean section had a significantly increased risk of adverse outcomes in their second pregnancy including placenta previa, antepartum hemorrhage, malpresentation, prolonged labour and cesarean delivery. The risk of emergency cesarean delivery increased the most. Rare events such as placenta accreta and uterine rupture also were significantly more common in mothers who delivered their first

child by c-section. Also two maternal death occurred in the previous cesarean delivery group (one from hemorrhage following hysterectomy for placenta accreta and one from amniotic fluid embolism following uterine rupture). There were no maternal deaths in vaginal delivery group. Infants whose mothers had a previous cesarean delivery had an increased risk of being small for gestational age, premature or stillborn.

Conclusion. Therefore the risk of cesarean section and Labor are different, a first cesarean delivery is associated with increased risk of adverse outcomes in subsequent pregnancy and the risk of recurrent cesarean deliveries are additives. I believe these findings have serious implications for women who elect to have first child through a cesarean delivery and however if these risk fully explained to the woman, she should be allowed to choose to accept one set of risk above the other.

Kambinda Dricky Nasilele

GESTATIONAL DIABETES AND MEDICAL TREATMENT

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Actuality. Gestational Diabetes Mellitus is defined as high blood glucose level in a pregnant women who never had diabetes. Gestational Diabetes affects up to 15% of women worldwide.

The aim was to improve the health of women and to avoid complications of mother and newborn during pregnancy and birth. To determine the benefits of treatment on women with Gestational Diabetes Mellitus and their Newborn babies.

Matherials and methods. The study was conducted on 46 pregnant women with Gestational Diabetes Mellitus using Medication and a Special diet. The special diet was 1.Plenty of water 2.Take small quantity of breakfast (because blood glucose is not easy to control in the morning due to the release of hormones that boost the blood sugar).3. 25 to 40 g of carbohydrates in the morning and 50 to 60g of Carbohydrates for lunch and dinner, eg whole-grain bread products).4.Protein e.g meat, cheese, eggs, nuts, peanut butter, fish, turckey etc. 5.Vegetables eg lettuce, okra, mushrooms, brocoli carrots,

cabbage etc. 6.Fats e.g nuts, salmon fish avocados etc.7 Getting enough rest and avoid stressful situations.

Result.The 46 pregnant women with gestational diabetes where divided into two groups, 23 women were put on traditional treatment and the special diet and the other 23 women only traditional treatment .Women who were on medication had less cases of cesearean section and hypertension/pre-eclampsia in fact their blood pressure was well controlled, they were less complications such as hypoglycemia, preterm birth with respiratory distress syndrome ,microsomia and no admissions to intensive care unit of neonates with women with gestational diabetes. With women on observation showed a lot more complications of pre-eclampsia, and almost 87% gave birth with ceaserian section.

Conclusion. Pregnant women with Gestational Diabetes and their newborn who were on put on treatment and the special diet had less complications such as pre-eclampsia, macrosomia, dystocia, less admission to intensive care unit and less delivery with cesarean section while pregnant women and their babies with gestational diabetes without treatment showed 97% complications. Treating Gestational Diabetes Mellitus results in less complications in both mother and the baby and improves their health. So it goes on to show that treating Gestational Diabetes has great health benefits on both the mother and her baby

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Kluiunyk M.V., Kolganova N.L.

SPECIFIC DERMATOSES OF PREGNANT WOMEN

Research advisor: Belovola A.N., Professor
Department of dermatology, venereology and medical cosmetology,
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Actuality. During pregnancy women's skin has a lot of functional changes. There is group of specific skin diseases which we can see during pregnancy or/and after childborn. This problem is very important in obstetrics and in dermatology, because skin diseases, in most cases, has negative impact on mental and emotional condition of a pregnant woman. Therefore this kind of diseases can be harmful for fetus.

The aim. To find out several groups of specific dermatoses of pregnancy.

Materials and methods of research. Material were data of 75 patients surveyed in the last 2 years about various diseases of the abdominal and thoracic cavities.

Diaphragms with pathology were excluded. Analysis and image processing were performed on a workstation "HP-Z820" with special software "Vitrea 2".Gender-based cases were: male – 61 and female – 14 cases. Age interval from 26 to 82 years old, according to the type of the structure revealed the following relationships – male hypersthenics – 35%, normosthenics – 60%, asthenics – 15%; for female following ratio was 30%, 50% and 20% accordently.

The results. Based on analysis of scientific literature we found out several groups of specific dermatoses of pregnancy. Pemphigoid of pregnant - hormone-mediated, autoimmune disease that develops in association with pregnancy, a molar pregnancy and even the chorioepithelioma. If you had this disease one time, it will come back again. Urticarial rash takes form of plaques, strips and concentric rings. In further bubbles and bubbles, accompanied by severe itching. In most cases the process begins in the region of navel and then spreads to the skin of the abdomen, thighs, palms, soles, rarely on mucous. Polymorphic rash of pregnancy appear in late of pregnancy and/or after childbirth. There are three main theories: excessive stretching of the stomach, hormonal factor, embryonal factors. It starts of urticarial papules, usually on the fringes of sprains. Often rash connects with another rashes, then it can looks like a toxic erythema. Umbilical region doesn't involve in the pathological process; on mucous it didn't describe. Itching of pregnant it can more often observes in person who has atopic diseases in anamnesis. The disease appears by itching in combination with small (<0.5 cm) red or flesh-colored papules, in more cases it located on the skin of the body and extensor surfaces of limbs. Itchy folliculitis of pregnant. At present time scientists don't know about pathogenesis of this disease. Maybe, mechanism of development, similar to the mechanism of development of steroid acne (acne on the background of using systemic corticosteroids or progesterone).The disease doesn't recur. The disease characterize by severe itching and eruption of small, red follicular papules which located on the upper of body.

Conclusion: Thus, based on literature which we reviewed, we can conclude that the problem of the specific dermatoses of pregnancy is important for both obstetrics and dermatology. First of all because of the negative impact skin diseases on mental and emotional condition of the pregnant woman, therefore it can be harmful for fetus. You must exercise special care in the treatment of these dermatoses. There are two specialists who should carry about pregnant woman with specific dermatoses: obstetrician - gynecologist and dermatologist. Treatment depends on the clinical picture, and gestational age.

Konoval A.

THE IMPACT OF IMMUNOMODULATORY THERAPY ON THE MICROBIAL ASSOCIATIONS IN WOMEN WITH CSO

Research advisor: Paraschuk Y., Doctor of Medical Science, Professor
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Actuality: Insufficient efficacy of the therapy of ascending infection, leading to the chronic salpingoophoritis (CSO) to a certain extent is attributed to the presence of the defense mechanisms of pathogens of damaging factors. Research of biofilms allows to detect informative criteria for the assessment of the earliest mechanisms of adaptive responses of microbes to the action of various factors, and to define the therapy which will prevent the formation of biofilm spread.

The aim: Diagnostic confirmation of the use of immunomodulatory therapy in women with CSO against a background of determination of the ability of microorganisms to form biofilms.

Materials and methods: determination of the density of biofilms of vaginal secretions due to the coloration with gentian violet with further microscopic evaluation in 70 women with CSO compared with a group of healthy women (n = 35). The groups were divided as follows: group 1 – women with CSO receiving standard therapy; Group 2 – women with CSO who received the therapy including an immunomodulating drug.

Results: Results of the pathogen testing of vaginal secretions on the ability to form biofilms showed that all isolated pathogens have formed dense biofilms in the patients of group 1 and 2 before therapy.

After conduction of therapy in women with CSO it was found that the optical density of daily isolate biofilms had been significantly decreased. However, it was found that after the proposed treatment performed in women of group 2 the density of daily biofilms E.coli was inhibited in 2.9 times, while in women of group 1 – in 1.9 times; in women of group 2 the density of daily biofilms S. epidermidis was inhibited in 5.1 times, and in women of group 1 – in 2.7 times; Enterobacter – in women of group 2 the density of daily biofilms was inhibited in 6.5 times and in women of group 1 – in 3.4 times;

Actinomyces spp. – in women of group 2 the density of daily biofilms was inhibited in 6.8 times and in women of group 1 – in 3.9 times; S. pyogenes – in women of group 2 the density of daily biofilms was inhibited in 5.9 times and in women of group 1 – in 3.2 times; Candida spp – in women of group 2 the density of daily biofilms was inhibited in 7.5 times and in women of group 1 – in 4.1 times; S. aureus – in women of group 2 the density of daily biofilms was inhibited in 5.4 times and in women of group 1 – in 2.7 times.

Conclusion: So the application of immunomodulating biological agents in CSO inhibits the ability of pathogens of vaginal secretions to form dense biofilms as one of the major factors of pathogenicity of microorganisms. This enables antimicrobial medications to perform their function to the extent necessary to eliminate the pathogen from the body, since the biofilms are formed in the presence of microbial associations, which in turn are multiresistant to antimicrobial therapy.

Litvinova A.

FEATURES OF PREGNANCY COMPLICATED BY PREECLAMPSIA AND ANTIPHOSPHOLIPID SYNDROME

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Kharkiv, Ukraine

Actuality. Antiphospholipid syndrome (APS) is one of the reasons for the development of obstetric and extragenital pathology. Importance is assigned to the antiphospholipid antibodies (APA), because their play an important role in vascular wall damage that underlies the pathogenesis of preeclampsia.

The aim: the study to investigate the characteristics of products AFA in pregnant women with preeclampsia.

Material and methods. Examined 83 pregnant at 22 to 38 weeks of gestational. Women were divided into 3 groups. The 1 group consisted of 27 pregnant with preeclampsia of varying severity and an increased level of antibodies to cardiolipin (ACL) and β2 – glycoprotein 1 (GP1). II group consisted of 31 pregnant with preeclampsia and physiological level ACL and β2GP1. The control group consisted of 25 pregnant with physiological pregnancy. All pregnant underwent a clinical examination and laboratory findings, a study of indicators of coagulation

and anticoagulation systems, the level ACL, anti-β2 GP-1, antibodies to prothrombin and anexin V.

Results. Analysis of severity of pre-eclampsia showed that pregnant in the group with pathological levels of APA were significantly more frequent was presence of pre-eclampsia severe – 25,0%, in the II group, severe preeclampsia is absent ($p<0.05$). Revealed earlier development of preeclampsia in pregnant with pathological level APA (13.8% of patients of the 1st group in the 22-24 weeks). It was found that for pregnant women with pathological level APA is characterized by an earlier and more severe pre-eclampsia.

Installed a significantly higher level of autoantibodies to β2 GP-1 classes IgM, IgG, antibodies to anexin V class and IgM antibodies to cardiolipin.

In the presence of preeclampsia on the background of the pathological level of antibodies significantly more frequently. The results of Doppler blood flow in umbilical artery, which can be explained by preeclampsia, cjnstant of pathological products APA enhanced thrombotic tendency leading to the violation of the utero-fetal blood flow. In the 1 group, these changes occurred in 22.1% of cases, and in II – 4.4% ($p<0.05$).

Analysis of pregnancy outcomes showed that the date of delivery in 1, and II groups of pregnant women with preeclampsia (36,2±0,5 weeks) and (36,8±0,3) was significantly earlier ($p<0.05$) than the control (39,1±0,1).

Conclusions. On the pathological level of APA accompanied the earlier development and more severe course of preeclampsia, leads to the deterioration of the fetus, accompanied by an increase in the number of premature labor and the birth of children with grous retardation. For the prevention and treatment of pregnant with preeclampsia, it should be surveys for the APA, β2-GP1, prothrombin and anexin V.

Miroshnichenko Y.N., Tverezovskaya I.I.

APPLICATION OF LETROZOLE IN ENDOCRINE STERILITY TREATMENT

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Actuality. Endocrine sterility occupies one of leading positions among different reasons of female sterility that combine all conditions connected with ovulatory failure. In the structure of female sterility a frequency of endocrine form range to 40 %.

The aim of the research is to expose peculiarities of mechanism of action aromatase inhibitor letrozole in patients with sterility caused by polycystic ovary syndrome.

Materials and methods. There were 28 women 20-28 years old with polycystic ovary syndrome (average age is 24±1,8). All patients had complete pelvic examination for co-morbidity detection of reproductive female system and contraindication to this type of therapy. Selected medical preparations have been used for 4 months.

Results. After having undergone a treatment course 82% of patients had restoration of ovarian function, 39 % of them got pregnant. After dose titration to 5,0 mg, the rest 90 % of women got pregnant. On the top of already administered therapy thinning of functional endometrial layer and reducing of glands secretion were not observed.

Conclusion. Ovarian hyperstimulation of aromatase inhibitor letrozole is an effective method of ovarian stimulation in patients with endocrine sterility. Application of medicaments results in restoration of ovulation and pregnancy. It is also exposed that letrozole has dose-dependent effect on dominant follicle growth.

Alisa Nagieva

MODERN APPROACHES TO THE ISSUES OF IMMUNOLOGICAL INFERTILITY DIAGNOSTIC

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Actuality: There are a lot of reasons of infertility emergence but one of the main causes is problems with immunity and this problem hold 3rd place by criteria of frequency of occurrence.

Materials and methods: Those contraventions are usually connected with forming of sperm antibodies (SAB). A degree of impaired fertility will depend on quantity of SAB, that will be a cause of impaired spermatogenesis. According to the statistics if men have SAB it will lead to infertility in 10-20%. To diagnose immunological infertility next methods are used:

- postcoital test (PCT) – estimate the compatibility between sperm and cervical mucus;
- test contact - estimation of penetrating ability of sperm in the cervical mucus;
- MAR- test - the percentage of sperm covered by SAB.

Results: To determine the predictive value of immunological infertility diagnostic methods, an experiment was carried out. In experiment participate 20 couples with infertility: they are a study group. And 20 couples who have children: they are a control group. Results of test-contact showed that 5 couples (25%) from study group have SAB. In control group there were 4 couples (20%) with SAB. But MAR- test showed that 8 infertility couples (40%) had SAB, when from control group there was only one couple (2%).

Conclusions: Taking into account the data of the experiment, MAR-test is recommended as a required method when examining infertile couples.

Nesteruk A.V.

CYTOKINE PROFILE AS DIAGNOSTIC CRITERION IN PERINATOLOGY

Research Advisor: PhD, Associate Professor Plachotnaya I.Y.
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Actuality: In accordance with the statistical study carried out by Ginsburg in 2010, early perinatal mortality in Ukraine is about 3 cases per 1,000 live births. This is in great part due to the infectious complications in children arising because of intrauterine infection (IUI) of mother. Early detection of IUI is not always possible due to the nonspecific symptom.

Chronic persistent infection contributes to the maintenance of permanent high levels of innate immunity factors due to the effect on the cell Toll-receptor system. Receptor activation leads to the cytokine release and implementation of inflammatory response. Presumably, the levels of pro- and anti-inflammatory cytokines may allow predicting the implementation of infectious complications in the children who are born to mothers with IUI.

Aim: Determination of the criteria for the diagnostic of early neonatal complications based on a study of pro- and anti-inflammatory cytokines in the blood serum and the contents of the posterior vaginal fornix (PVF) of pregnant women with IUI.

Materials and Methods: The study included 24 pregnant women, who were divided into 2 groups. The first group (basic) included 14 women with realization of IUI in the newborn in early neonatal period, the second (control) - 10 patients without the implementation of IUI in newborns. The content of cytokines IL-1β, TNFα, IL-6, IL-8, IL-10 were examined.Women age ranged from 22 to 39 years and was averaged 31.0 ± 0.5 and 28.0 ± 0.5 years, respectively. In analyzing the structure of extragenital diseases of mothers there was a significant increase in the incidence of chronic diseases of upper respiratory tract (32.3%), chronic kidney disease (25.1%), cystitis (30.2%), $p < 0.05$. In the basic group, the opportunistic vulvovaginal infection (43.5%), carriage of herpes simplex virus (42.1%), candidiasis (35%), ureaplasma (36.4%), $p < 0.05$, were more common.

In the quantitative study of pro-inflammatory cytokines in pregnant women who gave birth to children with IUI, there was a significant increase in the serum levels of IL-8 (16.73±1.7 pg/ml, $p = 0.021$) and IL-6 (38.4±3.5 pg/ml, $p = 0.032$). The contents of the PVF had

elevated cytokine levels of IL-6 (89.41±6.5 g/g) and IL-1β (157.2±13.4 g/g), p<0.05. Anti-inflammatory IL-10 in the serum of pregnant women was reduced 6 times compared to the control group, average was 3.99±2.2 pg/ml, p = 0.011).

Conclusions: In result of examination of pregnant women with IUI implementation in neonates it has been shown an decrease of anti-inflammatory cytokine IL-10 and increase of pro-inflammatory cytokines IL-6, IL-8 at the systemic level as well as an increase of pro-inflammatory cytokines IL-1β, IL-6 at the periphery. Based on these data it is possible to develop diagnostic criteria, the use of which will reduce the risk of infectious complications in newborns.

Novikova Anastasia

CLINICAL AND ETIOLOGIC CHARACTERISTICS OF ABNORMAL UTERINE BLEEDINGS IN ADOLESCENT GIRLS

Research advisor: Tuchkina Irina, Doctor of Medical Science, Professor
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Actuality: Abnormal uterine bleedings of puberty (AUBP) are one of the most severe gynecological diseases in adolescents constituting 20-30% of all gynecological diseases in this age group. Issues of diagnosis, treatment and rehabilitation of patients with AUBP remain relevant, since recurrence worsens prognosis regarding reproductive function in these patients, which is still an important social and economic problem.

The aim of our study was to evaluate clinical and etiological features of the development and presentation of new abnormal uterine bleedings in adolescents.

Materials and methods: Assessment of medical records of 11-17-year-old adolescents with AUBP for the years 2014-2015 was performed at the Department of Obstetrics, Gynecology and Children Gynecology (Regional Children Clinical Hospital No.1 and Kharkiv Maternity Hospital No.1).

Results: The study of medical records showed that 70% of patients developed AUBP at the age of 14-16 years, the majority of patients (77.5%) had new-onset bleedings and 22.5% of adolescents suffered

from recurrent bleedings. Of these, 80% of girls did not undergo rehabilitation after the new-onset bleeding and did not seek gynecological help to restore menstrual function.

The findings revealed that 55% of patients had such family histories of reproductive disorders as maternal menstrual dysfunction (MD), complicated perinatal period (hypoxia during labor, birth trauma, intrauterine pneumonia and other) in 45% of patients. The majority of patients were found to develop AUBP at unfavorable premorbid background: 67.5% of them had frequent acute respiratory viral infections and sore throat in prepubertal period. Besides, 60% of patients were diagnosed with chronic extragenital diseases (chronic gastritis, pyelonephritis, disorders of the nervous and endocrine systems).

Conclusions: Thus, the study showed that AUBP more commonly occurs in adolescent girls 2-3 years after menarche. The study also determined multifactorial etiology of this disease: the impact of adverse perinatal period and premorbid background, the presence of extragenital pathology, as well as hereditary predisposition to MD. Absence of rehabilitation after new-onset bleeding is regarded as a risk factor of recurrence, which indicates the need for careful clinical examination of these patients in order to restore menstrual function during routine clinical examination.

O. V. Gnatenko, A. M. Prokopenko

IMPROVEMENT OF DIAGNOSIS AND TREATMENT EFFICIENCY IN ACUTE ABDOMEN IN YOUNG FEMALE PATIENTS AND ADOLESCENT GIRLS

Scientific supervisor: Doctor of Medical Science, Professor I. A. Tuchkina
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Actuality. The term "acute abdomen" is complex. It unites acute conditions of different etiology and clinical presentation. Despite the variety of etiologic factors its symptoms have many common features (I.A. Tuchkina et al, 2013).

The aim of the study was to improve diagnosis and treatment efficiency in pubertal patients and young women with gynecologic disorders that triggered acute abdomen.

Materials and methods. The study was performed at the Department of Obstetrics, Gynecology and Children Gynecology. It involved examination

of 184 adolescents aged 11-18 years and young reproductive age women, who underwent treatment of acute abdomen with differential diagnosis between gynecologic and surgical abnormalities.

Results. Acute abdomen in adolescents was due to pelvic tumors - 36%, congenital anomalies of the uterus and vagina - 17%, ovulatory syndrome and ovarian apoplexy - 21%, acute appendicitis - 18%, torsion of adnexa - 8%. Young women most often had inflammatory diseases of the internal reproductive organs - 33%, ovarian apoplexy - 32%, pelvic tumors - 18%, endometriosis - 13%, ectopic pregnancy, menstrual blood reflux, adhesions after surgery on uterine adnexa - to 4%. Acute abdomen in girls and adolescents with ovarian tumors is often caused by torsion of cyst pedicle and uterine adnexa - 37%, hemorrhage into the cyst capsule - 35%, rupture of cyst capsule - 23%, association with acute appendicitis - 5%. The authors developed a diagnostic algorithm involving comprehensive clinical and laboratory examination, assessment of clinical presentation, premorbid background, evaluation of the early history and infectious index, the course of pregnancy and labor, the degree of physical and sexual development, the character of menstrual disorders, gynecological status and functional status of the ovaries. Hormonal profile was studied by the levels of luteinizing and follicle-stimulating hormones, prolactin, estradiol and testosterone. The study also determined physical health (consultation with a pediatrician and specialists in related fields), pelvic echosonography, Doppler study of uterine vessels and ovaries, vaginoscopy and colposcopy by indications and follow-up monitoring by a surgeon and a gynecologist (compulsory at the age under 18, by pediatric gynecologists and surgeons).

Conclusion. Symptoms of acute abdomen in adolescents and young women were triggered by pelvic tumors in 36% and inflammatory pelvic diseases in 33% cases. The diagnostic algorithm elaborated in the study promotes early diagnosis and rational therapy with maximum preservation of reproductive organs in surgical interventions.

Obinyan Ofure Abigael

C-JUN INFLAMMATORZ PROTEIN; A NEW DIAGNOSTIC APPROACH TO THE DIAGNOSIS OF ENDOMETRIOSIS

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Actuality: Endometriosis, the invasive displacement of uterine tissue into surrounding organs, affects at least 10 percent of women worldwide. In patients with endometriosis, cells from the lining of the uterus flow into the fallopian tubes and then into the peritoneal cavity, where they implant on organs including the ovaries, colon, and diaphragm. This produces lesions that can cause pain ranging from mild to debilitating, and can lead to infertility. Endometriosis is difficult to study because it can appear and disappear at different times in a woman's life, and the symptoms and severity can vary greatly. Furthermore, the disease often goes undiagnosed or misdiagnosed for many years.

The aim of the investigation was to study the various inflammatory proteins in patients with suspected or diagnosed endometriosis so as to improve the clinical method of investigating endometriosis.

Materials and Methods: Peritoneal fluid from 77 patients who reported a wide range of symptom severity indicating endometriosis was analyzed. For each sample, 50 proteins were measured, including inflammatory compounds known as cytokines. A distinctive profile of cytokine activity associated with certain symptoms, specifically ovarian and rectovaginal lesions was identified.

Results: One of the key inflammatory regulators identified from the peritoneal fluid sample analyzed was c-Jun, which is a protein that drives inflammation and has been known to be strongly associated with endometriosis. c-Jun is a molecule that is secreted by macrophages, a type of immune cell that acts as a sentinel patrolling tissues, digesting foreign material, and presenting it to other immune cells. The link between the immune activation of c-Jun inflammatory protein and development of endometriosis is not clearly understood.

Conclusions: Identification of c-Jun inflammatory protein in peritoneal fluid of patient indicates a strong suspicion for the diagnosis of endometriosis. With such revelation, drugs that inhibit c-Jun protein can be used for the early treatment of endometriosis and can prevent the various complications such as pain

and infertility that most women encounter.

Oluwayemi M., Gradil O.G.

THE NEW ASPECTS OF ENDOMETRIAL CANCER TREATMENT

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Actuality. Endometrial cancer is the fourth most common cancer in women with an estimated 46,470 new diagnoses and over 8000 deaths in 2011. For patients with early stage disease, hysterectomy is considered curative. By contrast, advanced stage and high grade endometrial cancer is lethal.

The aim is to increase awareness, and begin a fight against industries that are aware of the potential risk posed in form of side effect after the use of some products, producing a more reliable therapy and thereby reducing mortality.

Materials and methods. Retrospective analysis of 117 case histories of patients with endometrial cancers. Cross analysis of the etiological background, pathophysiology and prognosis of these patients. Diagnostic methods such as General Clinical Examination, Biochemical analysis, ultrasound, CT scan Histological study (biopsy).

Results. The insights into hormonal therapy as a cure for other cancers, the role played by the pharmaceutical industries with the aim of "Therapeutic Improvement" and the emerging likelihood of endometrial cancer because of our modified lifestyle plays a greater role in endometrial cancer development in every woman, especially those of premenopausal age. The role played by the evolving therapeutic influence of Targeted Molecular Therapy has shown great prognostic value for all kinds of cancers it is optimized for, it would also improve the prognosis and increase the survival rate of every patient suffering from endometrial cancer and even any kind of cancer as a whole.

Conclusion. Despite the questions and barriers, the incorporation of targeted molecular therapy into treatment regimens in endometrial cancer is an exciting area of investigation with the potential to improve outcomes. Outside of the development of a reliable screening test for endometrial cancer, converting the disease to a chronic state and improving progression-free survival is our best hope to reverse the

concerning trend of decreasing 5 year survival for this disease.

I.K.Osovskiy, R. E. Blagoveshchensky, L. A. Grebenyuk

ADMINISTRATION OF OCTAPLEX IN COMPREHENSIVE TREATMENT OF PATIENTS WITH PROFUSE OBSTETRICAL HEMORRHAGE

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Actuality. In spite of the advances in up-to-date medicine the treatment of postpartum hemorrhage remains a serious challenge for obstetricians. The incidence of such bleedings comprises up to 9-11% of the total number of deliveries. It is hemorrhage that conditions the fourth part of the causes of maternal mortality, of which over 70% result from disorders of hemostatic system, i.e. it can be considered a manifestation of DIC-syndrome. The incidence of profuse obstetric hemorrhage is 0.5 - 4.5% of the total number of bleedings.

The aim was to analyze the effectiveness of administration of therapeutic agent Octaplex in the treatment of profuse obstetric hemorrhage.

Materials and methods: the Department of Obstetrics, Gynecology and Children Gynecology assessed feasibility of administration and effectiveness of the therapy with this drug according to the instructions for the employment of medical immunobiological drug Octaplex 500 IU approved by the order issued by the Ministry of Health of Ukraine No.197 from 05.03.2010

Results of the study: The treatment of women with profuse blood loss was aimed both at surgical arrest of bleeding and at urgent replenishment of circulating blood volume. This method is not possible without infusion therapy and administration of drugs, activating hemostasis and preventing the development of coagulopathy. Development of hemorrhagic shock followed by a severe disruption of blood coagulation system is the most severe and life-threatening complication of blood and plasma loss. The action of this drug is aimed at the correction of coagulopathy. It contains several coagulation factors in high concentration: factor II - 220-760 IU, Factor VII - 180-480 IU, Factor IX - 500 IU, Factor X - 360-600 IU, protein S - 140-640 IU, protein C - 140-620 IU, heparin - 100-250 IU. Given the amount of clotting factors

it can be said that one bottle of Octaplex 500 IU is equivalent to 1000-1500 ml of fresh frozen plasma. The average amount of blood loss was 950 mL (mean intraoperative blood loss - 620 ml), which corresponds to an average value of 21% of CBV, 1.53% of body weight. Indices of blood clotting before administration of Octaplex 500 IU (INR - 0.78, Quick's prothrombin - 52.5%, blood clotting time - 5 minutes 41 seconds). Indices of blood clotting after administration of Octaplex 500 IU (INR-1.12, Quick's prothrombin - 86.3%, blood clotting time - 7 minutes 23 seconds).

Conclusion: Octaplex is an effective agent for the treatment of profuse postpartum hemorrhage and corrects coagulopathy.

Praharaj Pooja

RELEVANT AND MOST APPROPRIATE CONCEIVING PERIOD FOR A FULL TERM PREGNANCY AFTER MISCARRIAGE

Research advisor: Ass.prof. Gayvoronskaya Svetlana
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Actuality: A miscarriage is the spontaneous loss of a fetus before the 20th week of pregnancy. For those who lose a pregnancy in the first or second trimester, the question is always concerned of when to begin trying to conceive again. It can often be associated highly with emotion and uncertainty. Doctors usually recommend that women should wait at least three months after a miscarriage before trying to get pregnant again with the belief that this delay will reduce the risk of another miscarriage. My research suggests that the three-month wait recommendation isn't warranted and it may lead to another loss. It's always a better option to conceive within 3 cycles of menstruation to give birth to a live baby and avoid further loss. There is no physiologic reason for delaying pregnancy attempt after a loss, it somehow depends upon the emotional and mental status of the couple.

The aim : To study the relevance of conceiving immediately within 3 months and after 3 months of miscarriage.

Materials and methods: Literal Statistics of Women who planned to conceive sooner and later after their miscarriage taking into account the terms of their age, their partner's age, BMI , race, smoking history, alcohol use, physical activity,

sub fertility (history of difficulty conceiving over at least a year of trying), previous children, previous losses, gestational age of previous loss.

Results: We tracked 108 women with two previous miscarriages for up to six menstrual cycles while they tried to conceive again. None of the women's most recent pregnancies had resulted in a live birth or stillbirth or had involved an ectopic or molar pregnancy, and 106 (99%) women had lost their fetuses at 19 weeks of pregnancy or earlier. Almost 25 women (23%) waited more than three months after their last pregnancy loss before attempting to conceive again, but the other 83 women (77%) began trying to conceive within three months after their loss. Among those who began trying to conceive within three months, just over half 44 women (53%) became pregnant and gave birth to a live baby. Meanwhile just 9 women (36%) of those who waited at least three months after their loss before trying to conceive could manage to give birth to a full term baby.

Conclusion: Women who started trying to conceive within three months after their last miscarriage still had approximately 65% greater chances of becoming pregnant and giving live birth than women who waited.

Shakhzadian Lauritta, Liubomudrova Katerina

CRITERIA FOR THE DIAGNOSIS OF SERTOLI - LEYDIG TUMORS

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Actuality: Sertoli - Leydig Tumors (also referred to as androblastoma and arrhenoblastoma) - are ovarian neoplasias of stromal sex cord-producing testosterone. This masculinizing hormone producing tumors containing Sertoli cells - Leydig (hilyusnye and stromal cells). These tumors constitute 1.5-2.0% of all ovarian tumors and usually develops between the ages of 20-40 years.

The aim: To search for the most effective diagnostic and prognostic criteria of ovarian tumors from sex cord stromal women of childbearing age.

Materials and Methods: We observed 5 women aged 25-38 years, with a benign course of the disease. Everyone developed a similar clinical picture of acne, hirsutism (40%

patients), amenorrhea (60%), virilization, infertility, masculinization, lack of libido, and many showed a decrease of subcutaneous fat, hypertrophy of the clitoris.

Laboratory studies yielded the following results: we observed women with identified reduction of FSH - 1.2 mU / l (N = 2.8-11.3mEd / l) and LH - 1.4 mU / l (N = 2.0-14.0mEd / liter) in the follicular phase; androstenedione low content - 60 ng / 100 ml (N = 85-275 ng / 100 ml) in plasma and a significant increase in testosterone indicators - 5.3 pg / ml (N = 0,45 - 3,17 pg / ml). An increase in the characteristic α-fetoprotein - 15Ed / ml (N = <10Ed / ml), DHEA-S - 500 mg / dL (N = 30-333 mcg / dl) was observed. In these patients no expression of cytokeratin 7, smooth muscle actin, CD 10, CA125 was detected. At gynecological examination the tumor was determined by the side of the uterus, it was one-sided, mobile, painless, with a diameter of about 15 cm, oval, thick consistency, with a smooth surface. Ultrasound picture showed inhomogeneous internal structure with multiple hyperechoic and hypoechoic areas inclusions. Ultrasonography of androblastoma has similar characteristics with granulous- and theca cell tumors. All patients had the surgical removal of the mass, salpingo-oophorectomy with resection of the greater omentum and the revision of the contralateral ovary.

Conclusions. For the purpose of differential diagnosis of ovarian tumors, hormonal examination should be carried out to investigate tumor markers, ultrasonography, CT (if indicated), a suspected Sertoli - Leydig tumor requires immediate surgery.

Skorbach Olena, Kucher Alina

METABOLIC IMPLICATIONS IN WOMEN AFTER HYSTERECTOMY

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Actuality . According to the literature, hysterectomy is the most common radical surgery on the internal female organs in women. Surgical removal of the uterus, even preserving ovarian tissue, 60-85% of women accompanied by neuro-vegetative and psycho-emotional disorders, changes in lipid and

protein metabolism and leads to the development of metabolic syndrome.

The aim. The aim of our study was to study features of hormonal and metabolic processes in women after hysterectomy.

Material and methods. We examined 60 women aged 40 to 51 years. All women were divided into the following clinical groups: I gr. – 30 healthy women; II gr. – 30 women after hysterectomy without removal of both ovaries. Assessment of hormonal carried in plasma by enzyme immunoassay using test kits manufacturing company "Alkor Bio" (St. Petersburg, Russia). All women determine the Body Mass Index (BMI), conducted systolic and diastolic blood pressure (BP). Levels of serum immunoreactive insulin (IRI) and C-peptide were determined by standard radioimmunoassay kits firm DRG International Inc (USA) by ELISA. Determination of the concentration of total cholesterol, triglycerides (TG), high-density lipoprotein (HDL) were determined by enzymatic colorimetric method in the blood serum using test systems from Roche Diagnostics (Switzerland) on an automatic biochemical analyzer Cobas 6000 (module 501). Low-density lipoprotein (LDL) was calculated by formula W.T. Friedewald (1972).

Results. In the study it was found that in II gr. showed significant increase in the content of follicle-stimulating and luteinizing hormones amid falling estradiol, progesterone [p <0.05]. Metabolic disturbances in II gr. included increase of body weight, blood pressure, changes in lipid and carbohydrate metabolism. After 1 year in women after hysterectomy was ascertained BMI tends to increase on average by 12%. The same dynamics also noted regarding to BP. Before the surgery, 25 (83.3%) women had normal blood pressure, but by the end of the first year after surgery were observed in 37 (74%) women some increase in systolic blood pressure and diastolic blood pressure less. The study of carbohydrate metabolism did not reveal significant abnormalities of basal levels of IRI and C-peptide in the women group II. In the analysis of lipid metabolism in II gr. were able to identify potential increase in atherogenic potential of blood, characterized by hypercholesterolaemia and significantly different from I gr. [p<0.05]. Moreover, an increase of proatherogenic factions as LDL, which was significantly different from I gr. [p<0.05]. Also found a significant increase TG in II gr comparing to the I gr. [p<0.05]. Antiatherogenic fraction concentration of HDL cholesterol in II gr. was significantly lower than in I gr. [p<0.05].

Conclusions. Thus, hysterectomy, which is made in the reproductive age, contributes to premature ovarian failure, and further development and metabolic disorders.

Soe Thurein, Romanenko A., Adeyemi A.

ROLE OF sFlt-1/PlGF RATIO IN THE DIAGNOSIS AND PROGNOSIS OF PREECLAMPSIA

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Actuality: Preeclampsia is one of the late gestoses, which affects both the mother and the unborn child. It begins after 20 week of gestation and presents with hypertension ≥ 140mmHg (systolic) or ≥ 90mmHg (diastolic) and proteinuria ≥ 0.3/24hours with or without edema. Mechanism of preeclampsia is not fully understood but there is growing evidence that factors such as soluble fms-like tyrosine kinase- 1 (sFlt-1) and placental growth factor (PIGF) has a major role in disease development. sFlt-1:PlGF ratio is increased in the serum of women with preeclampsia.

Aim: The aim is to determine the role of sFlt-1/PlGF ratio in diagnosis and prognosis of preeclampsia

Materials and methods: studies by Verlohren, S. et al (2012). Moore, A.G. et al (2012). PROGNOSIS and PreOS study

Results of research: In one study by Verlohren S. et al, 388 singleton pregnancies with normal pregnancy outcome, 164 with preeclampsia, 36 with gestational hypertension and 42 with chronic hypertension were tested for sFlt-1 and PlGF. Patients with preeclampsia had a significantly increased sFlt-1/PlGF ratio. In a prospective study by Moore, A.G. et al, the sFlt-1/PlGF ratio of 276 women with suspected preeclampsia were measured. High levels of sFlt-1/PlGF ratio were associated with increased risks of maternal and neonatal complications. PROGNOSIS and PreOS study found that sFlt-1/PlGF ratio < 38 will most likely not develop preeclampsia for at least1 week, and ratio 38 – 85 has no definite diagnosis but are highly likely to develop preeclampsia in 4 weeks. The ratio >85 was associated with early onset preeclampsia and ratio>110 was associated with late onset preeclampsia or other forms of placental insufficiency. Severely elevated sFlt-1/PlGF ratio are associated with the need to deliver within 48 hours.

Conclusion: sFlt-1/PlGF ratio can be used as an additional diagnostic tool in preeclampsia. It also has a prognostic value. Though sFlt-1/PlGF ratio is not included in current guidelines, its use will help to optimize care in women with preeclampsia.

V. Yu. Solyanik, A. M. Chumak

CERVICAL POLYP (CLINICAL CASE)

Scientific supervisor: Doctor of Medical Science,
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Actuality. Cervical polyps rank one of the first disorders among benign abnormalities as they affect 22.8% of gynecological patients and are often found in pregnant women. Pregnancy promotes active proliferative processes in the cervix, leading to reserve cell proliferation, microglandular hyperplasia and squamous metaplasia. Simultaneously, cervical polyps show decidual response of stroma. Pregnant women may have decidual pseudopolyps with local decidual changes in cervical stroma, which is shaped like a protruding plaque or a pseudopolyp.

Clinical case. A pregnant 27-year-old patient A. was referred to gynecology department on 03/12/15 by a doctor from a maternity welfare clinic with blood-tinged discharge from the genital tract. The woman was examined and **diagnosed** with**:** pregnancy of 17 weeks and a decidual polyp. **Present history**. At the first consultation for registration she was diagnosed with pregnancy of 17 weeks and a decidual polyp. The woman was referred to hospital for treatment. **Gynecologic status.** External genitalia are without abnormalities. Body hair is of the female type. The vagina is narrow with clean vaginal mucosa. The cervix is conical in shape, without deformations, cervical epithelium is intact. A polyp of 1.8×0.5 cm in size is seen in the cervical canal. The body of uterus is increased to 17 weeks of pregnancy. The adnexa are not detectable. Vaginal vault is unobstructed and painless. Discharge is spotting and blood-tinged. **On examination:** complete blood count: hemoglobin 125 g /l, RBC 4.1×10/12, WBC 5.0×10/9, thrombocytes 220×10/9, BSR 24 mm/h, stabs-2%, segmented neutrophils-69%, eosinophils - 2%, lymphocytes-22%, monocytes - 5%; urinalysis: quantity 50.0 mL, color: light yellow, specific weight 1.010, alkaline reaction, WBC 10-12 within sight, transitional epithelium 0-2 within sight, much mucus. Colposcopy: a decidual polyp of 1.8×0.5 cm in size seen in the cervical canal. US findings: hyperechoic formation of 1.8×0.5 cm is visualized in the cavity of the cervix.

Treatment. Decidual polyps during pregnancy are subject to immediate removal, if such symptoms are observed:

• The formation bleeds constantly;

• The surface of the polyp is found to have ulcerations;

• The polyp triggers spasms and increases the tone of the uterus;

• The infected polyp undergoes destructive changes.

Conclusions. Polyps are removed by unscrewing using laser techniques and an endoscope, followed by thermo- and cryocautery. The method is minimally invasive and does not require scraping of the cervix, so it can be used in pregnancy. In this clinical case polypectomy is performed by unscrewing followed by histological examination of the removed tissue.

V. A. Sorokina, V. V. Grigoryeva, A. K. Dusmatova

INCIDENCE AND CHARACTER OF INFLAMMATORY DISEASES IN PREGNANT WOMEN

Scientific supervisor: Doctor of Medical Science, Professor I. A. Tuchkina
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Actuality: Inflammatory diseases in pregnant women complicate pregnancy, triggering adverse outcomes of labor and deteriorating postpartum period.

The aim of the study was to analyze the incidence and character of inflammatory diseases in pregnant women.

Materials and methods. The study involved examination of 60 pregnant women at the age of 20-35 years at 25-38 weeks of gestation. All the pregnant women underwent clinical examination in accordance with the order issued by the Ministry of Health of Ukraine No. 582 (of 15.12.2003).

Results. The study implied retrospective analysis of obstetric and labor records at the Department of Pathologic Pregnancy in Kharkiv Maternity Hospital No.1 during the years 2014-2015.

The study showed that prior to the present pregnancy 67% of women had inflammatory diseases of the reproductive organs (vaginitis, colpitis, endocervicitis, salpingo-oophoritis, etc.). Sexually transmitted infections were detected in 15.5% of women.

Extragenital diseases in remission were found in 12.2% of pregnant. The most frequently observed disorders were chronic pyelonephritis (25.0%), chronic gastritis (15.0%) and vegetative-vascular dystonia (10.0%).

The study of the reproductive function showed that the present pregnancy was the first for 30.5% of women, 20.5% of pregnant women had more than two abortions, 8.4% and 5.4%, respectively, had pathologic and premature birth in history, 15.6% of patients had ectopic pregnancy, infertility I was observed in10.6% and infertility II in 9.0%.

Clinically pregnant patients presented with itching and burning in the vagina, frequent urination and vaginal discharge (leukorrhea).

Bacteriologic study of vaginal contents showed fungus mycelium and spores in 28 pregnant women (46.6%), indicating vaginal candidiasis. Bacterial vaginosis was identified in 32 pregnant women (53.4%): increased white blood cells count from 15 to 45 within sight, clue cells and much mucus, secondary to a decrease in lactic acid bacteria, presence of Gardnerella vaginalis.

Ultrasound examination revealed oligohydramnios in 20 pregnant (33.3%) and polyhydramnios in 18 (30%), increased echogenicity of the endothelium of the internal organs in 5 (8.3%), placental dysfunction in 17 (28.4%) patients.

Labor history: vaginal labor in 34 (56.6%), cesarean section in 17 cases, including: scheduled in 12 (20.0%), urgent in 5 (3.4%), premature rupture of membranes in 9 pregnant women (15.0%).

Conclusion: Bacteriologic study of vaginal content has a high diagnostic value in prognosis of pregnancy and childbirth. It allows timely, non-invasively prevention of abnormal changes in the mother-placenta-fetus system.

N. A. Stolbova

ENDOMETRIAL HYPERPLASIA. TREATMENT AND PREVENTION AT REPRODUCTIVE AGE.

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Actuality. A high incidence of endometrial hyperplasia (EH) and the likelihood of malignancy put this pathological condition among the most urgent problems of modern medicine. Crucial clinical significance of EH identification lies in the fact that it is one of the most frequent causes of uterine bleeding and women's hospitalization.

The aim of our study was to improve the treatment of women

with endometrial hyperplasia (EH) and to determine the effectiveness of phytonutrient indole-3-carbinol in complex treatment.

Materials and methods. To achieve this goal we performed a retrospective study of 50 women of mean age 36.6±2.5 years, who underwent inpatient treatment from 2014 to 2016 at the Department of Obstetrics, Gynecology and Children Gynecology of KNMU. Indications for hospitalization of patients included uterine bleedings of different nature (85.6%) and presence of ultrasonographic findings of pathological changes of the endometrium (14.4%).

Echography was regarded as an EH marker. An increase in the thickness of more than 16 mm and/or ultrasound signs of abnormal changes in its structure were considered to be one of the criteria of endometrial hyperplasia. The abovementioned signs were indications for morphological examination after therapeutic and diagnostic curettage of the uterus. Prior to and after the treatment (in 3 and 6 months) all women underwent tests to determine their hormonal profile (estradiol (E2) and progesterone (PRG)). The patients were divided into two clinical groups: the first group - 25 women, who after curettage of the uterine cavity received combined oral contraceptives (COCs) (ethinylestradiol + desogestrel 1 tablet / day (30 mg) from the 1st day of menstrual cycle for 21 days, munali-30 - "Lupin Limited", a representative office in Ukraine) for 1-3 months; the second group consisted of 25 women who after curettage of the uterine cavity were administered COCs for 1-3 months and further till 6 months phytonutrients "Indole-F" (Farmakom, Kharkov) 1-2 capsules (1 capsule- 90 mg), 2 times a day.

Results. In the first clinical group E2 indices were not significantly different before and after the treatment (before treatment: 21.5 ± 0.70 ng / ml; after treatment: 20.1 ± 1.3ng / ml); PRG levels tended to increase (before: 77.5 ± 8.1 ng / ml; after 96.3 ± 7.2 ng / ml). In the second clinical group E2 levels decreased (before: 26.2 ± 1.1 ng / ml; after: 19.6 ± 1.1 ng / ml), and PRG levels increases (before: 75.2 ± 5.4 ng / ml; after: 91.8 ± 2.7 ng / ml).

The study of findings in 6 months showed that EH relapses in the second group was observed 3 times less than in the first group 1 (12% vs. 32%)

Conclusion. The study showed that administration of phytonutrients as part of comprehensive therapy of patients with EH improves the effectiveness of treatment and reduces the incidence of recurrence in women of reproductive age.

Yu. A. Svidchenko, E. A. Kamardina, V. A. Miroshnikova

PROLONGED CONTRACEPTION STRATEGIES IN THE TREATMENT OF GENITAL ENDOMETRIOSIS

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Actuality. The problem of endometriosis remains one of the most difficult in present-date gynecology. The incidence of this pathology is high and stable comprising 5-10% of all reproductive age women and 20-30% of women with primary and secondary infertility, and has no tendency to decrease.

The aim. To evaluate the efficacy of prolonged combination oral contraceptives in the treatment of genital endometriosis.

Materials and methods. The study involved examination of 52 case histories of women with genital endometriosis. Of these, 27 patients were diagnosed with endometriosis of the uterus and endometriosis of the vagina, who took ""Jeanine"" as an independent method of treatment (63 days of receiving active pills followed by a seven-day break), and 25 women with endometriosis of the ovaries, endometriosis of the uterus, who took ""Jeanine"" after surgical treatment (coagulation of endometriosis foci during laparoscopy). The average age of patients was 33.2±0.7 years. The women were examined by clinical, laboratory and instrumental methods, according to the order issued by the Ministry of Health of Ukraine No.626 (of 08.10.2007).

Results. The study found that administration of ""Jeanine"" resulted in a significant reduction in the severity of dysmenorrhea - 40 women (76.9%), dyspareunia - 45 women (88.8%). It also identified an increase in the quality of life and the degree of sexual satisfaction in patients. Ultrasound examination showed that 38 women (73%) had a clear tendency towards a decrease in the severity of genital endometriosis and a reduction in size of endometrioid heterotopias during the course of treatment. Side effects of the drug were observed in 10 patients (19%) - spotting blood-tinged discharge in the first three months of drug administration.

Conclusion. The study revealed positive dynamics in the course of treatment by ""Jeanine"", both as an independent monomethod and as an anti-recurrence postoperative therapy.

Adejobi Fisayo, Nwaizu Tochukwu, Naguta L.A.

EFFECT OF PHYTOESTROGENS IN PATIENTS WITH ABNORMAL UTERINE BLEEDING

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Actuality: In the pathogenesis of abnormal uterine bleeding (AUB) the main role is give to the violation of the relationship between the hypothalamus, pituitary, ovaries and uterus, resulting in the change of the processes of follikulogenesis, ovulation, formation and development of the corpus luteum, and, consequently, this leads to the disruption of processes of proliferation, secretion and endometrium desquamation. AUB frequency ranges from 15 to 20%. AUB can be not only manifestations of pathological processes in the reproductive system, but the first sign of violations of hemostasis fundamental units, as well.

The aim. To examine the feasibility of phytoestrogen therapy in the treatment of AUB to reduce this pathology in women of reproductive age.

Materials and methods. To achieve this goal, we have studied the effectiveness of phytoestrogenotherapy in treatment of patients with AUB. When making the diagnosis, complaints of patients, menstrual function, clinical and laboratory techniques, tests of functional diagnostics, hormone, histological and ultrasound examinations were taken into consideration. We had the comparative analysis of the AUB treatment: 31 patients who received traditional treatment, which included hemostatic and hormone therapy (comparative group) and 28 patients treated with combined therapy, which included the use of phytoestrogens. The control group consisted of 12 healthy women. All patients had complaints of general weakness, fatigue, menstrual disorders.

The results. The average age of women was 31,8 ± 1,53 years with individual ranges from 22 to 48 years. In the analysis of menstrual function it has been revealed that the average age of menarche was 13,71 ± 1,4 years. Full normalization of menstrual function was noted in 26 (92.8%) patients of the main group, compared with 28 women (90.3%) from the comparison group. In the use of phytoestrogens a positive trend has been noticed, confirmed by clinical and laboratory, hormone, histological and ultrasound studies. All patients of the main group have significantly improved their overall health conditions, there were no

complaints, menstrual blood loss decreased. 2 (6.4%) patients from the comparison group required discontinuation of hormone therapy due to side effects. All patients whose treatment was conducted with the use of phytoestrogens underwent ultrasound examination 6 months later and endometrial pathology was not found.

Conclusion. Thus, the received data, the positive dynamics of clinical symptoms and absence of recurrence in patients who used phytoestrogens, show the effectiveness of the therapy and it can be recommended for widespread use in gynecological practice.

Tykhanskyi D., Liubomudrova K.S., Melashych Jane

TREATMENT OF BACTERIAL VAGINOSIS WITH MONOCHROMATIC RED LIGHT

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Actuality. Light of helium-neon laser has an influence on processes in tissues during metabolism shifts. Vaginal dysbacteriosis is a structural disturbance of mucosa's biofilm. Collective immunity of pathological biofilm prevents from correction of bacterial vaginosis (BV) with probiotics.

The aim. To investigate influence of lasers' radiation on character of pathological vaginal biofilms at often recurrent vaginal dysbiosis.

Material and methods. Experimental group (40 women with BV) passed a treatment course of BV: metronidazole 500 mg orally twice a day for 5–7 days and clindamycin 100 mg intravaginally for 6 days with simultaneously using of «Mustang-2000» device – 7 procedures. In control group (15 women) were used analogical drugs with successive topical administration of lactobacterise. Effectiveness of therapy was assessed according to the character of BV's intensity before and after the treatment as the data shows: presence or absence and quantity of biofilms; quantitative assessment of anaerobes to aerobes, detected after treatment; lysozyme's level of vaginal biotope.

Results: Patients with BV in 72.5% (n=29) of cases had biofilms in the experimental group and 73.3% (n=11) in the control group. Correlation of anaerobes to aerobes in experimental group was 153:1, in

control group – 156:1. Contents of lysozyme in secretion before treatment was 39,74±6,25 mcg/l (cervical secretion) at the rate 30,54±6,32 mcg/l, p<0,05 and 37,97±8,52 mcg/l (vaginal slime) at the rate 28,85±6,94 mcg/l. After treatment's course, clinical recovery occurred in 87,5% (n=35) of cases in experimental group and in 60% (n=9) of cases in control group. Presence of biofilms in experimental group regressed to 22,5% (n=9) and correlation's quantitation of anaerobes to aerobes changed to 4:1. In control group presence of biofilm's associations was detected in 80% (n=12), correlation of anaerobes to aerobes was 40:1. Lysozyme's contents in cervical and vaginal secretion of experimental group was according to the physiological norm (30,87±5,15 mcg/l and 28,89± 6,29 mcg/l accordingly). Lysozyme's contents in secretion in control group remained increased 37,96±5,7 mcg/l with the norm of 30,54±6,32, p<0,05 in cervical slime and 33,79±6,8 mcg/l when the norm is 28,85±6,94 mcg/l, p<0,05 in vaginal contents.

Conclusions: Using of monochromatic red light leads to stimulation of local immunity cells, which regenerate and revive adaptive mechanisms. Thanks to these pathological biofilm associations are destroyed and recovery is accelerated.

Yavdak Anastasia

SPECIFIC FEATURES OF UTERINE SCAR FORMATION AFTER CESAREAN SECTION

Research supervisor:Prof. Scsherbina Irina
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Actuality: The most important strategic direction for Social Policy of Ukraine is to preserve and strengthen the health of the population. Prevailing trends in society - low fertility, ecological trouble, determine characteristics of modern obstetrics - a significant increase in the frequency of abdominal delivery. However, increasing the frequency of abdominal delivery creates a new problem - the management of pregnancy and delivery in women with a uterine scar. In currently have a scar on the uterus up to 10 % multiparous. Traditional evaluation of the uterine scar during pregnancy, based mainly on the analysis of clinical and anamnestic data, is not highly informative, the conclusion of sonographic study is ambiguous. For

morphological study of tissue of the uterine scar biopsy is mainly used at re-operation. However, until our time are unclear factors that determine complete wound healing after surgery. According to the literature increasingly important in the formation of a defective scar given to the disorganization of the connective tissue. In connection with this search for predictors of formation of high-grade scar is relevant.

The aim: Increase the efficiency of diagnostic usefulness of uterine scar formation on the basis of a clinico - pathogenetic and biochemical criteria.

Materials and methods: Activity of MMP-9 in the serum was determined with using a fluorescent substrate, magnesium levels - colorimetric method with xylidine blue.

Results: The study included 20 pregnant women with a uterine scar after cesarean section which were divided into 2 clinical groups. Group 1 - 10 patients with phenotypic traits of undifferentiated connective tissue dysplasia (NDCTD) and group 2 -10 pregnant women without signs of NDCTD.

The average age of patients was 27 to 5 years. In the somatic history of the patients of the 1 group predominated diseases of the circulatory system (mitral valve prolaps , dystonia, hypertension), myopia in 27.5 % of patients. The analysis of MMP -9 expression showed an increase in MMP -9, while in group 1 maximum expression was significantly higher than in comparison group. Thus, magnesium deficiency leads to increased of MMP activity and as a consequence, enhance the processes of degradation of extracellular matrix - interstitial connective bases muscle tissue of the uterus.

Conclusions:

1. The most important clinical predictors of inferiority of uterine scar are phenotypic signs of connective tissue dysplasia.
2. Molecular-biological factors that determine the formation of defective uterine scar are hypomagnesemia and increased activity of matrix metalloproteinases.
3. Clarification of the pathogenesis of formation of defective uterine scar can improve the efficiency of diagnosis and to identify ways of prevention

PEDIATRICS

Asuka Emediong S, Aliejim Uchenna S.

INDICES OF IMMUNE SYSTEM OF JUVENILE IDIOPATHIC ARTHRITIS PATIENTS WITH DIFFERENT COMBINATIONS OF GENOTYPES OF METHYLENETETRAHYDROFOLATE REDUCTASE, METHYLTRANSFERASE, METHYLTRANSFERASE REDUCTASE.

Research advisor: Golovko T.
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Actuality. Juvenile Idiopathic Arthritis (JIA) - autoimmune, non-infectious chronic inflammatory joint disease in children less than 16 years of age. Methotrexate (MTX) is one of the most effective medication for treating of patient with JIA, but long-term therapy by MTX leads to disturbances of folate cycle. The 5-methyltetrahydrofolate-homocysteine methyltransferase (MTR), 5-methyltetrahydrofolate-homocysteine methyltransferase reductase (MTRR), 5,10 methylenetetrahydrofolate reductase C677T and A1298C variants (MTHFR-677 and MTHFR 129) are genes which codes enzymes of folate cycle.

The aim was to determine differences in parameters of immune system of patients with Juvenile Idiopathic Arthritis (JIA) with different combinations of genotype of 5-methyltetrahydrofolate-homocysteine methyltransferase (MTR), 5-methyltetrahydrofolate-homocysteine methyltransferase reductase (MTRR), 5,10 methylenetetrahydrofolate reductase C677T and A1298C variants (MTHFR-677 and MTHFR 129).

Method: the index group compiled 9 patients with JIA, control group compiled 20 apparently healthy children. Children of index group were divided into 3 groups. The first group had none or one affected gene, the second group had two, while the third had three and more affected genes. Blood analysis indices included: total hemolytic complement assay, circulating immune complex (CIC), circulating immune complex constant (CIC const), immunoglobulin (IgA,G,M). MTR, MTRR, MTHFR-677 and MTHFR 129 were tested by polymerase chain reaction (PCR). Statgraphics 3.0 test were used for processing of the data.

Result: the indexes of total hemolytic complement assay in first and second groups were without significant difference in comparison with indices of control group. but in patient from III group these parameter was authentically higher (1,39±0,31, $p<0,001$, control group 1,14±0,02).The levels of CIC and CIC constant were no different from

analogous indices of control group. IgG had an upward trend in patients of the 3rd group (III group 17,08±2,45, p<0,05, control group 11,66±0,73) and a downward trend in patients of the first group. IgM were authentically higher in patients from III group 3,08±0,90, p<0,001, control group 1,23±0,09).Patient of the 2nd group had a downward trend of IgA , (II group 1,61±0,08, p<0,05, control group 1,88±0).

Conclusion: the study shows that the group with three and more affected genes o had the highest level of immune reactivity as compared to patients with two, one or none affected genes. Consequently, this requires further studies and investigation on how the degree of immune reactivity corresponds with genes mutations.

Awofolaju T.T., Adeleke A.

LABORATORY BLOOD PARAMETERS OF JUVENILE IDIOPATHIC ARTHRITIS PATIENTS WITH DIFFERENT COMBINATIONS OF GENOTYPES OF METHYLENETETRAHYDROFOLATE REDUCTASE, METHIONINE SYNTHASE, METHIONINE SYNTHASE AND REDUCTASE GENES

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Actuality. The methyl cycle play important role in the metabolism of the cytotoxic drug methotrexate. It contains different gene coding enzymes, such as the methylenetetrahydrofolate reductase, methionine synthase, methionine synthase and reductase.

The aim to determine differences in laboratory blood parameters of patients with Juvenile Idiopathic Arthritis (JIA) with different combinations of genotype of methionine synthase (MTR), methionine synthase and reductase (MTRR), methylenetetrahydrofolate reductase (MTHFR 1298 and MTHFR 677) genes.

Materials and methods: the study included 9 patients with JIA. They were divided into 3 groups. The first group had none or one affected gene, the second group had two, while the third had three and more affected genes. The following indexes were assessed in the blood: erythrocytes (RBC), hemoglobin (Hb), leukocytes (WBC) with their subtypes, erythrocyte sedimentation rate (ESR), glycoproteins, sialic acids, seromucoids. Statgraphics 3.0 test were used for processing of the data.

Results: the indexes of erythrocytes and hemoglobin were without significant difference (RBC I group 4,25±0,14, p>0,1, II group

4,13±0,13, p>0,1, III group 3,96±0,16, p>0,1; Hb I group 121,50±5,50, p>0,1, II group 121,20±4,05, p>0,1, III group 113,50±8,50, p>0,1). The level of WBC was authentically higher in patients from III group (WBC III group 14,5±5,60, p<0,05 opposite I group 7,80±1,30, p>0,1, II group 6,69±0,78, p>0,1), though their subtypes were without significant difference. In children from III group registered the tendency for elevation of ESR (ESR III group 15,5±13,50, p<0,1 opposite I group 4,50±0,50, p>0,1, II group 7,00±2,14, p>0,1). The biochemical values were shift multivalued. For example, glycoproteins, haptoglobin and sialic acids were without significant difference (glycoproteins I group 0,350±0,090, p>0,1, II group 0,294±0,030, p>0,1, III group 0,325±0,070, p>0,1; haptoglobin I group 1,227±0,496, p>0,1, II group 0,822±0,152, p>0,1, III group 1,733±0,818, p>0,1; sialic acids I group 184,50±5,50, p>0,1, II group 186,20±9,79, p>0,1, III group 204,00±96,00, p>0,1). The seromucoids in patients from I and II groups were authentically higher (I group 0,198±0,088, p<0,05 opposite II group 0,102±0,004, p<0,05), in patients from III group registered the tendency for elevation of seromucoid's level (0,193±0,087, p<0,1).

Conclusions: consequently, the laboratory blood parameters in patients with Juvenile Idiopathic Arthritis (JIA) from different groups were shift multivalued. In patients with three and more affected genes were authentically higher WBC and registered the tendency for elevation of ESR. In children, who had none or one affected gene and with two affected genes, were authentically higher level of seromucoids, which indicated the inflammation process of connective tissue in this patient.

Mousa Khalil Bahja, Zeinab Hammound

RISK FACTORS IN MAXILLARY SINUSITIS ESTIMATED BY CONE BEAM COMPUTED TOMOGRAPHY

Research advisor: Fomenko Yulia, Golik Natalya

Maxillary sinusitis of odontogenic origin is a well-known condition in both the dental and otolaryngology communities. It occurs when the schneiderian membrane is violated by conditions arising from dentoalveolar unit . Failure to accurately identify a dental cause in these patients usually lead to persistent symptomatology and failure of medical and surgical therapies directed toward sinusitis.

Unilateral recalcitrant disease associated with foul smelling drainage is a most common feature of odontogenic sinusitis . Recently , maxillary sinusitis is well identified by the Cone Beam Computed Tomography (CBCT) that provides high-quality, accurate three-dimensional (3D) representations of the osseous elements of the maxillofacial skeleton. CBCT systems are available that provide small field of view images at low dose with sufficient spatial resolution for applications in endodontic diagnosis, treatment guidance, and posttreatment evaluation.In recent publications , patients suffering from maxillary sinusitis increased from 10-12% up to 30-40% .

Aim of the study : to estimate the relation between the anatomy of the upper posterior teeth and maxillary sinusitis and factors that increases the risk of sinusitis.

Methodology : 42 patients suffering from dental problems in maxillary posterior area , were investigated and examined by Cone Beam Computed Tomography (CBCT) (3D) images during april 2015 in pediatric therapeutic dentistry department of KMNU by using the 3D program technology.

The study was conducted by investigating different parameters and peculiarities of maxillary posterior teeth :

1- Anatomy

2- Presence or absence of endodontic treatment

3- Presence of complications of endodontic treatment

4- Changes in maxillary sinusitis

5- Presence of foreign bodies related to iatrogenic activities.

Results : 35 of cases revealed changes in maxillary sinus , 95% of cases suffering from maxillary sinusitis due to bad endodontic treatment . Almost 90% of cases showed that the roots of the teeth were in contact or almost penetrating beneath schneiderian membrane . Moreover , 8% of the cases presented foreign bodies in the investigated zones.

Conclusion : Incidence of odontogenic sinusitis is likely to be reported due to iatrogenia (bad endodontic techniques of treatment) and peculiarities of the anatomy of the roots. In addition, dental evaluations with only panoramic or dental radiographs frequently fail to diagnose a dental disease in patients with odontogenic maxillary sinusitis , therefore, should prompt strong consideration of a sinus CT or CVCT with thorough inspection.

Chernenko L.N.

STATE OF THE LEFT VENTRICULAR FUNCTION IN CHILDREN WITH BRONCHOPULMONARY DYSPLASIA

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Actuality. With the development of the technologies in special care nursery and respiratory support of premature newborns there has been noted a reduction in mortality along with an increase in frequency of bronchopulmonary dysplasia (BPD) in children. Today we know that children with diseases of the respiratory system on a par with the overload of the right ventricle of the heart activity changes occur in diastole left chambers of the heart. Diastolic dysfunction is often preceded by reducing the pumping function and can lead to the formation of left ventricular heart failure in children with respiratory diseases.

The aim of the work was to improve the diagnosis of diastolic dysfunction of the ventricles of the heart in children with bronchopulmonary dysplasia.

Material and methods: the study involved 83 children aged from 1 month to 3 years with bronchopulmonary dysplasia. Assessment of diastolic function and measurement of pulmonary artery pressure was carried out with the help of all surveyed Dopplerechocardiography «AU 3 Partner».

Results: in the study of diastolic function of the heart in children surveyed were analyzed maximum speed peak early (E), the maximum speed of atrial systole (A), the ratio (E/A), deceleration time of E peak time and isovolumetric reduction (IVRT). In the first year of life in children with BPD isovolumetric relaxation time was significantly less than standard indicators and IVRT in children and the comparison group ($p<0.01$). Accelerated isovolumetric relaxation correlated with a high heart rate, characteristic of children with BPD ($r=0,675$, $p<0.01$). Maximum velocity of early filling (peak E) was significantly decreased compared with normal ($p<0.01$). While the rate of atrial contraction tended to decrease. The median ratio E/A was higher than unity (1.29 units). And the results of the study E/A in the comparison group ($p<0.01$). Thus, in children with BPD in the first year of life is more likely pseudonormal type of diastolic dysfunction as type of diastolic dysfunction with chronic energy deficiency, hypoxia and cardiac morphological changes characteristic of patients with BPD. In 1/3 patients had impaired relaxation spectrum of the left

ventricle, indicating that the early stage of diastolic dysfunction. In these patients the peak E was reduced, the peak A and DT - increased against the background of overtime isovolumetric relaxation. Infants with BPD frequently detected type pseudonormal transmitral diastolic range (p<0.01).

Conclusions: for children with bronchopulmonary dysplasia characterized pseudonormal type of diastolic dysfunction (p<0.01) and a violation of relaxation (p<0.01). Most often in children with bronchopulmonary dysplasia in mitral spectrum detected pseudonormal type (p<0.01).

Dryl I., Mechanina D.

FEATURES OF MICROBIAL-INFLAMMATORY DISEASES IN INFANT CHILDREN

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Actuality. The numerous studies show the relevance of studying blood parameters in children with renal insufficiency. Not enough described the changes of indicators of blood test in children with kidney disease, that determined by hematology analyzer, including the average content of hemoglobin (MCH).

The aim to analyze the blood test indicators obtained by hematology analyzer in children in different periods of clinical course of pyelonephritis.

Materials and methods: the study involved 54 children from 1 to 17 years of age (meanage 6,6 ± 4,3r .). The girls prevailed 44 (81,5 ± 5,3%) against 10 boys (18,5 ± 5,3%). In depending on the course of the period of pyelonephritis, children divided into 3 groups: I group 26 children with chronic pyelonephritis in the period of remission, the average duration of disease 5,2 ± 4,02 years; II group of 13 children with acute exacerbation of chronic pyelonephritis, duration 2,6 ± 2,05 years; III group of 15 children with acute active pyelonephritis, duration of disease 5,3 ± 4,4 days.

Results: mild anemia was found in 20 (37,03 ± 6,6%) children, 6 of them (23,8 ± 8,4%) - from I group, 7 (53,8 ± 14,3%) - from II group, 7 (46,6 ± 13,3%) - from III group. The average volume of red blood cells was reduced in 24 (44,4 ± 6,8%) children, most often in children III gr. (53,3 ± 13,3). MCH decreased in 39 (72,2 ± 6,15%) children, most often

in children II gr. The average volume of platelets was reduced in 11 (20,3 ± 5,5%) children, more often in children with III gr. -6 (40,0 ± 13,0%).

Conclusions: one-third of children with pyelonephritis has microcytic hypochromic anemia, especially in the acute process and the presence of active inflammation. The MCH reducing in the vast majority of children 72,2 ± 6,15%, which enables us to regard this figure as an early manifestation of anemia (before reduction hemoglobin).

Dryl I., Kazaryan V., Medyk E.

FEATURES OF MICROBIAL-INFLAMMATORY DISEASES IN INFANT CHILDREN

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Actuality. The most common pathological conditions of the urogenital system in young children include microbial-inflammatory processes in the kidneys. The studying of factors that potentially affect their appearance and contribute to the progression of kidney disease is important.

The aim to identify potentially unfavorable premorbid background and their impact on the microbial and inflammatory process in the kidneys of infant children.

Materials and methods: the study involved 24 infant children (from 2 to 36 months) with acute active pyelonephritis. The average age of studied patients was 15,5 ± 6,5 months, girls were prevailed (87,5 ± 6,8 %).

Results: in 66,6 ± 9,8 % of children microbial-inflammatory process in the kidneys debuted with hyperthermal syndrome, which was the ground for hospitalization. 54,1 ± 10 % of children were born from the first pregnancy; 20,8 ± 10,3 % - from the second pregnancy, 25 ± 9,0 % from the third pregnancy. In 65,2 ± 10,0 % of children had complications in the anamnesis: in 73,3 ± 11,8 % of mothers had the threatened miscarriage, 26,6 ± 11,8 % of mothers suffering from anemia in late terms of the pregnancy. As a result of the pathological pregnancy, 37,5 ± 10,0 % of children were born by the cesarean section. All children were born full-term with an average body mass 3470 ± 300 g. Only ½ of patients had the full breastfeeding for more than 6 months whose average duration was 3,5 ± 7,5 months. The duration of the breastfeeding less than 3 months was 25 ± 9,0 % of children, that form 50% of the recommended minimum term and continued 2,4 ± 1,5 months. The course of pyelonephritis in 45,8 ± 10,3 % of children accompanied by

the hypochromic, microcytic mild anemia severity. All children with the anemia had insufficient duration of breastfeeding, which certainly contributed to the slow process of recovery of the child with peculiarities of the immune status. Children with the normal duration of breastfeeding had moderate signs of inflammation of the slight increase in the erythrocyte sedimentation rate, 7,8 ± 3,1 mm/hour on average, children with the shorter breastfeeding were more pronounced signs of inflammation with increased sedimentation rate to 20,7 ± 5,4 on average. The last one indicates the greater severity of the inflammatory activity in these patients.

Conclusions: potentially adverse factors in infant children include burdened perinatal history in the form of long-term existence of the threatened miscarriage and mothers' anemia; insufficient duration of the breastfeeding and the presence of patients' mild anemia. These factors likely contributed to the emergence of infectious-inflammatory process with higher level of activity compared to children with the adequate breastfeeding without anemia.

Gordyeyeva A.A., Plohinov G.A., Zabolotnaya N.I.

CHEST WALL DEFORMATION AS ONE OF MANIFESTATIONS OF CONNECTIVE TISSUE DYSPLASIA

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Actuality. Chest wall deformations are divided into congenital and acquired. According to various authors, these deformities occur in 4% of the population and more often is combined with manifestations of connective tissue dysplasia (CTD).

The aim of the work is to investigate the frequency of chest wall deformities in children of 6-14 years with various degree of connective tissue dysplasia.

The materials and methods: we studied 269 children aged between 6 to 14 years, pupils of school №. 45 of Krivoy Rog.

Results: we identified 68 (25,28%) children with chest wall deformities, funnel chest wasin 53 (78%) children and keel chest – in 15 children (22%). 35 (51.5%) children with manifestations of mild connective tissue dysplasia (normal variant) had chest deformity, while in 30 cases (44.1%) it was funnel chest, in 5 (7,4%) – keel chest. One

third of children with chest wall deformities (21; 30,9%) were found to have phenotypic signs of CTD of moderate degree, while funnel chest was diagnosed in 15 (22.1%), and keel chest in 5 cases (7.4%). CTD of heavy degree was diagnosed in 12 (17,6%) children with chest wall deformity, funnel chest occurred in 8 (11.8%) children, keel chest – in 4 (5,9%) children. Among examined pupils with funnel chest boys met twice as often than girls, Comparative evaluation of occurrence frequency of individual phenotypic features in funnel and keel chest showed that manifestations of CTD of the skin, maxillofacial area, bone-articular system met with reliably the same frequency with these deformities, but keel chest was more often combined with scoliosis of 2 degree.

Conclusions: the dependence of the occurrence frequency of chest wall deformity of the severity of connective tissue dysplasia was established. The presence of chest wall deformities with mild CTD (normal variant) in almost half of the children probably indicates the acquired nature of the disease. In children of 6-14 years, irrespective of the severity of CTD funnel chest dominated.

Gupta Anmol

BREASTFEEDING IN KHARKIV, CAN WE IMPROVE SITUATION?

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Actuality. The Benefits of breastfeeding are evident and were published worldwide. The Concept Baby Friendly hospital was accepted in the world and was distributed in our country. The Lancet journal turned to this topic in February 2016. It was written that just 1 in 5 children in high-income countries are breastfed to 12 months, whilst only 1 in 3 children in low and middle-income countries are exclusively breastfed for the first 6 months. As a result, millions of children are failing to receive the full benefits provided by breastfeeding.

Why according to WHO statistics the prevalence of breast-feeding up to 6 months is only 20% in Ukraine? First of all, Ukrainian publications during the last 5-10 years show few studies about the prevalence of breastfeeding, as well as researches which are devoted to the promotion of breastfeeding. By the way foreign sources, including the human Lactation Journal demonstrate hundreds of publications and this number grows every year.

According to the data of Kiev Breastfeeding Monitoring Centre, it was revealed that 46.5% women had problems with breastfeeding after discharge from the maternity ward. More often there were problems with nipples pain, lactostasis, as well as the lack of mother's milk.

The aim: To investigate the prevalence of breastfeeding among the children of our region, to find out which factors lead to early finishing of breastfeeding.

Materials and Methods: We have interviewed 52 mothers of children which were treated at the Multidisciplinary Clinical Hospital No.17 in Kharkiv for various reason. Age of children ranged from 1.5 months to 22 months. The prevalence of breast-feeding in children averaged 50%, up to 6 months breast milk was obtained by 35% children. About 99% of children were breastfed during first hours. The average breastfeeding duration was 2.0-4.5 months.

Results: The reasons that leaded to the early finish of breastfeeding were: milk lack- 50% families, by the way inadequate weight gain during breastfeeding observed only 5% women, painful nipples - 45% women. Formula feeding was obtained by 85% of children during their first days of life. Only 20% women were asked for medical help in case of breastfeeding problems. And 80% of women decided to give formula for a first time on their own. Those women who asked for help in 50% returned to exclusive breastfeeding.

Conclusions: Distribution of high-quality and adequate information devoted to breastfeeding among women by physicians will increase the prevalence of breastfeeding in our country. Increased breastfeeding rate in our country can raise not only the level of the nation's health, but also will effect on the economic status of the citizens. There is the high probability to return breastfeeding in case of adequate lactation help.

Isa Mashkur Abdulhamid, Patel Priyanka Harishchanka,

Uliana Ivanivna Marusyk

THE MARKERS OF ATOPIC REACTIVITY IN SCHOOL-AGE CHILDREN WITH SEVERE ASTHMA

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Introduction: A major challenge among modern pediatric allergic diseases is bronchial asthma. Assigning asthma control therapy to children should be considered based on the phenotype. Hence, performance of atopic reactivity in children that reflect the specific pathogenic mechanisms of asthma will personalize treatment and thus improve management of asthma.

Aim: To increase the effectiveness of treatment of severe asthma phenotype in school-age children, taking into account the diagnostic value of atopic reactivity indicators.

Materials and method: 60 school-age children suffering from asthma were comprehensively examined in the pulmonology department of Chernivtsi Regional Children's Clinical Hospital. The study involved 30 pupils with severe asthma and 30 children with moderate course. The content of serum total immunoglobulin E(IgE), IL-4 and IL-5 were determined by enzyme-linked immunosorbent assay (ELISA). Determination of immediate type skin sensitivity to nonbacterial standard allergens was performed by intradermal tests. To study atopy, standard household, epidermal, pollen and food allergen was used.

Clinical and epidemiological risks, as well as the diagnostic value of individual indicators of atopic reactivity for severe asthma phenotype verification were defined.

Results: About one in three patients (36.4%) with the phenotype of severe asthma recorded significantly increased content of IL-4 (more than 10.0 pg/ml), while only 15.5% in the second group ($P\varphi<0.05$). There was increased risk of relatively raised content of IL-4 and IL-5 in serum of patients with severe asthma. Almost every second child suffering from severe asthma noted increased concentration of IgE (>545.3 IU/ml). There were significantly more frequent cases of hypersensitivity to household allergens in the group of patients with severe asthma. Thus, a hyperaemia of more than 15.0mm was recorded in 81.5% of children of the first group and only in 51.9% ($P\varphi<0.05$) of the second.

Conclusion: The phenotype of severe asthma raises the risk of increased content of IL-4 and IL -5 in serum by 3.1 times. However, this

paraclinical test is rather suitable for verification of this phenotype (Sp – 84.6% (95% CI 75.9-91.1)) than for its detection (Se – 36.4% (95% CI 26.9-46.6)). Concentration of total IgE in serum of more than 545.3 IU/ml in children doubles the chances of severe asthma being present. Increased sensitivity to domestic allergens (hyperemia more than 15.0mm) allows severe asthma specificity verification (81.5%) and personalization of treatment policy in these patients.

Koval V.

DIFFERENTIAL DIAGNOSIS OF TROMBOCYTOSIS IN CHILDREN BASED ON CLINICAL EXPERIENCE

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Actuality. The most common reason of thrombocytosis is a secondary or reactive process, caused by infection, trauma, operation, anemia, congenital adrenal hyperplasia, medications (corticoids, sympathomimetics) and other reasons. Primary thrombocytosis (family thrombocytosis, megakaryocytic leukemia) caused by clonal proliferation of bone marrow is about 10% of cases. There are principal differences between the primary and secondary thrombocytosis in etiopathogenesis and clinical manifestations, but often it is difficult to differentiate these types basing on clinical symptoms and laboratory data.

Results: a boy was born from the 5th pregnancy, 2nd premature delivery in gestational age of 32 weeks with body weight of 2240 g, body length of 44 cm, Apgar score of 3-4 points. Condition was very severe and resuscitation with non-invasive respiratory support was held. Since birth the neonate had severe respiratory and neurological disorders, then hemorrhagic and hepatolienal syndrome appeared. In clinical blood tests there was anemia, leukopenia, thrombocytosis (up to 1300×109), distinct myeloid irritation. Congenital megakaryocytic leukemia was supposed. But myelogram was not held due to severe condition. In spite of intensive therapy the infant died at 9 days of life. Results of autopsy confirmed primary thrombocytosis due to congenital megakaryocytic leukemia.

A boy was born from 4th pregnancy 2nd delivery in the gestational age of 40 weeks, cesarean section with birth weight of 3500g, body length of 51 cm, Apgar score of 8-9. Hyperpigmentation of genitals

was observed. Condition deteriorated in the first weeks of life, when anxiety, flacidity, repeated vomiting, refusal to eat, loss of body weight appeared. Basing on complaints, electrolyte and hormonal disorders congenital adrenal hyperplasia, salt-wasting form was diagnosed. In a clinical blood test there was high thrombocytosis (up to 800×109), granulocyte shift, anemia. Child received substitution corticosteroid therapy, antibiotics, correction of fluid and electrolyte disorders. To eliminate heamoblastosis with primary thrombocytosis myelogram was conducted, pathology was not revealed. After empirical antibiotic therapy by meronem general improvement and normalization of all parameters of blood test were observed. In this case there was a secondary thrombocytosis associated with the underlying disease in combination with microbial infection processes on the background of immunodeficiency.

Conclusions: in the case of a transient thrombocytosis, which disappear after treatment of background cause, heamotological examination is not necessary. In cases of combined reasons of thrombocytosis (congenital adrenal hyperplasia and infections) thrice bacterial inoculation of all biological fluids should be included to plan of examination to provide target antibiotic therapy. Conversely, in the case of persist thrombocytosis in absence of an obvious cause, total hematological examination must be conducted.

Koval V.A., Kolesnik V.O., Omelchenko A.V.

PEDIATRIC SPINAL MUSCULAR ATROPHY AS A SYNDROME OF FLACCID CHILD

Supervisor – Omelchenko O.V.
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Proximal spinal muscular atrophy (SMA) of childhood is a severe, often fatal monogenic disease, inherited in an autosomal recessive manner. Pathogenetic basis of the disease is an affection of motor alpha neurons of the anterior horns of the spinal cord. This disease is connected with mutation of gene SMN1 (survival motor neuron-1) in 5q13.

Case report. The child N. of 1 year 4 months was admitted to the department of anesthesiology and intensive therapy with complaints of the absence of physical activity in the upper and lower limbs, cramps, refusal to eat, weight loss, dyspnoe. The boy was born from the second normal pregnancy in gestational age of 40 weeks. Delivery was physiological. The older child in

family had trisomy 21. At the first days of life the mother noted decrease in general motor activity, weak cry, skin jaundice. At the age of two weeks, there was a decrease in muscle tone of the upper and lower extremities, absence of sight fixation. After the 2nd week of life there was a general muscular hypotonia, movements of legs disappear, distinct dyspnoe. Because of this, child was examined by a neurologist and a geneticist. Basing on the results of molecular genetic studies the deletion of the 7th and 8th exons telomeric SMN1 gene in the homozygous state (spinal muscular atrophy) has been detected. Results of electromyography detected signs of a lesion of motor neurons of the spinal cord. At the age of 4 months a progressive deterioration with increasing bulbar syndrome, distinct reduced muscle tone and limited active movements was observed. Tendon reflexes from upper and lower extremities were absent. While admission condition was severe with respiratory insufficiency of II-III degree; infant was flaccid, adynamic, malnutrition of III degree, funnel chest deformity was observed. While examination, there were no active movements, areflexia presented, tendon reflexes were absent. Breathing was superficial, arrhythmic, dyspnoe. While percussion in the lower parts of right lung pulmonary sound was dull; while auscultation breathing was weakened. Cardiac tones were rhythmic, muffled with tachycardia. On the chest X-ray there was a right focal confluent pneumonia. Child was supported by ALV, due to a distinct dicrease of oxygen saturation. The child spent 365 days in the department, a tracheostomy was made because efforts to recover spontaneous breathing were not effective, the feeding was carried out through a tube. During his stay in the hospital pneumonia had undulating character; child received symptomatic, pathogenetic therapy and drugs that improve trophism of the nervous tissue. Despite conducted complex therapeutic measures, the child's condition progressively worsened and he died of a cerebral, cardio-respiratory, renal failure.

Suchwise, after the detection of the symptoms of weakness and diffuse hypotonia in children, physicians should suspect high probability of the diagnosis of SMA.

Aboghedeh A.M., Abughadeh A.R., Asibey A.G.,

Shuaibat M.A., Lupaltsova O.S.

THE CELL IMMUNITY COMPONENT IN CHILDREN WITH REACTIVE LYMPHADENOPATHY

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Actuality. The reactive lymphadenopathy is the reversible enlargement of lymphoid tissue secondary to antigen stimulus. The underlying mechanisms of the lymph node response to antigen stimulus in children has not yet been completely elucidated. Aim: to evaluated the cellular immunity in blood in children the reactive lymphadenopathy.

Material and methods: the 28 patients were recruited from Regional Children Clinical Hospital №1, Kharkiv. Children with the reactive lymphadenopathy (n=28) aged on average (5,9±2,4) years who had been admitted to the immunology department. The reactive lymphadenopathy was defined according to the protocol of diagnosis and treatment diseases of the immune system in children. The immunology blood testing was collected after clinical evaluation. Statistical analysis was performed using „Statistica-6".

Results: we found that children with the reactive lymphadenopathy had reduced level of the absolute number of leukocytes in 21 (75±8,3%) of cases. The absolute number of lymphocyte in 15 (53,6±9,6%) children and lymphocyte relative amounts in the blood from subjects in 17 (60,7±9,3%) of patients were decreased compared to normal lymphocyte relative amounts according to age. The decreased levels of absolute number of CD 3+, CD 22+, CD 4+, CD 25+ lymphocytes were detected in 10 (35,7±9,2%), 4 (17,9±7,4%), 9 (32,1±8,9%), 13 (46,4±9,6%) of children, respectively. We studied that blood from subjects of patients with the reactive lymphadenopathy had a higher levels of CD 8+ lymphocytes in 5 (17,9±7,37%) and CD 16+ - lymphocytes in 12 (42,9±9,5%) of cases.

Conclusion: the present data show that the decrease in cellular immunity indicating a significant role in the pathogenesis of the inadequate inflammatory response with the activation of the cytotoxic component.

Lysak Maryna, Kysil Irina

SPECIFICS OF AUTONOMIC REGULATION OF TEENAGER'S ORGANISM: MEDICAL AND SOCIAL PROBLEMS

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Actuality. Vegetative-vascular disorders are one of the urgent problems of modern medicine. This is due to several factors and especially the huge prevalence of autonomic disorders in adolescents. According to numerous epidemiological studies in populations of autonomic disorders, occurring in 25-80% of cases. To date, the issue remains controversial terminology, classification, pathogenesis, clinical diagnosis eligibility vegetative - vascular dystonia (VVD) as the underlying disease, given the lack of nozoformy in ICD-10.

The aim explore the adaptive-compensatory mechanisms of the organism teens depending on the availability of diagnosis of vegetative - vascular dystonia (according to medical records) and define the medical and social problems of the topic.

Materials and methods: in a study of 50 teenagers participated Kharkiv Lyceum №89 aged 12-16 years (24 girls and 26 boys). Cards were analyzed medical students conducted functional tests Shalkova №5. All the teenagers were held blood pressure (BP) and heart rate (HR), to test and thereafter. The study was conducted according to international standards. The children were divided into 2 groups: I - children with vegetative-vascular dysfunction and II - children without a diagnosis of VVD.

Results: in analyzing the results of the study found that children and of average blood pressure at rest places: systolic - 128,3 ± 4,2, diastolic - 74,4 ± 3,9 mm Hg and HR 84,22 ± 1,19 to pass; Children in the second group systolic blood pressure - 122 ± 6,0, diastolic - 70,6 ± 4,3 mm Hg and HR 78,01 ± 0,98 in accordance pass. After the test Shalkova 16.5% of children and 13.3% of children and the second group experienced an increase in systolic blood pressure (SBP) within 10-15%, diastolic blood pressure (DBP) in the range of 5-10% and heart rate within 15 -20%. The increase more than 20% of the original values SBP, DBP and heart rate was observed in 7.2% of children and of children and 6% of the second group. Reduction of

relevant indicators were not observed nor any child.

Conclusions: thus, adaptive - compensatory possibilities of children does not depend on the availability of diagnosis VVD. Therefore, to maintain the health of the population of child health and teaching staff shall be required not to limit physical activity of children and adolescents on physical education in schools for the diagnosis of vegetative - vascular dystonia.

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APERT SYNDROME OF NEWBORN

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Actuality. Primary craniosynostosis refers to closure of one or more sutures due to abnormalities of skull development secondary craniosynostosis results from failure of brain growth and expansion.

The aim is to study of newborn with Apert syndrome.

Materials and methods: under observation there was a newborn with Apert syndrome. The careful study of anamnesis, clinical investigation, monitoring of vital functions has been carried out.

Results: apert syndrome is usually a sporadic condition, although autosomal dominant inheritance. Apert syndrome characterized by acrocephalosyndactyly.
Under observation the was a neonate, who was born in perinatal center, from the first gestation on term, with body weight 2.7 kg and length 50 cm, Apgar scored 6/7. Mother developed polyhydramnios at 34 weeks gestation. Newborn has developed stigmata, although appearing to be in good health. Objectively the faces tend to be asymmetric, the eyes are proptotic, orbits shallow, widely spaced, antimongoloid slant of palpebral fissures, syndactyly of the 2nd, 3rd, 4th fingers, which be joined to the thumb and the 5th fingers. Similar abnormalities occur in the feet. During 3 days the general condition within normal. Newborn was consulting with orthopedics and discharge at home with recommendation. Newborn made a diagnosis: Aper syndrome, 1 type.

Conclusion: due to typical phenotype diagnosis has been established.

Nagieva K. F.

COMBINATION OF HEREDITARY MOTOSENSOR NEUROPATHY WITH HYPERHOMOCYSTEINEMIA AND FOLATEDEFICIENCY

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Actuality. Hereditary motosensor neuropathies - genetically heterogeneous group of clinically polymorphic diseases with progredient character of the course, leading to disability. Determination of certain metabolic disorders in this group of patients allows to adjuste conducting tactic of patients, thereby slow down the progression of the process.

Materials and methods: patient G., 17 years old boy, complained of fatigue during physical activity, cramps in the calf muscles, emaciation of the lower limbs, feet deformity, difficulty in walking, unsteadiness. Parents find child sick from the age of 10 years, when they noticed that the hands of child are toned during sleeping. In aged 13-14, noticed that the child changed gait, did not get completely on foot, later lossing of feet and hands weight was observed. The child was hospitalized in the neurological department, where he was examined. Received therapy. He was discharged with the diagnosis of: Hereditary neuropathy. Scoliotic posture. Per cavus bilateralis. Secondary cardiomyopathy of mixed genesis. In the future - repeated hospital treatment with the same diagnosis. In November 2015 – hospital treatment in specialized sanatoriums. Diagnosis: Hereditary polyneuropathy of the lower limbs. Scoliotic posture. Diagnosis when hospitalized: Hereditary polyneuropathy of the lower limbs. Scoliotic posture. In phenotype: pink color of the palms, thin hair, long face, short nose, long neck, scoliosis, Friedreich's foots, amyotrophy. Pedigree: the uncle of the boy is sick on hereditary neuropathy; the mother of the boy and his uncle are have the Friedreich's foot.

Results: karyotype - 46, XY, Ultrasonography of internal organs: Inhomogeneous structure

Onwujekwe Udodi

HAEMATOLOGICAL MANIFESTATIONS OF HELMINTHIASIS IN CHILDREN

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Actuality. Latent course of helminthic infections with the development of clinical symptoms of other diseases (allergy, diseases of the blood system) and the peculiarities of helminthic life cycle provoke difficulties in diagnostics and lead to long-term negative influence on the child's organism.

The aim identification of hematological symptoms of helminthiasis in children.

Matherials and methods: we analyzed the case histories of 16 children age 1.5 to 17years in the hematological department of Kharkov City Children's Clinical Hospital No. 16, in whom helminthic infestations have been found.

Results: main complaints of patients were the following: pale skin, weakness, loss of appetite, taste perversion (desire to eat chalk, soil, raw meat, butter), sleep disturbance, fatigue, irritability, rise in body temperature, nausea, abdominal pain, disorders of stool (diarrhea or constipation), disturbing them for a long time (from several weeks to months). Among the identified Helminthes, toxocariasis prevailed (in 8 children), rarely - enterobiosis (3), ascariasis (2), giardiasis (3), and two children had a combination of ascariasis and toxocariasis. The complaints were observed mainly in children with toxocariasis. On examination of these children the following diagnoses were made: iron deficiency anemia (43.7%), leukemoid reaction of the eosinophilic type (18.7%), reactive lymphadenopathy (25.0%), hepatosplenomegaly (56 5%), long-term fever (6.25%), acute obstructive bronchitis (6.25%). The most common laboratory parameters were anemia – moderate to severe, leukocytosis up to 25*10^9 / l, eosinophilia (up to 57%), high blood levels of γ-globulins (up to 44%) and Ig E (up to 880 ME/mL), accelerated ESR (up to 45 mm/h).

Conclusions: taking into account the high incidence of helminthic infections among children and the lack of specific symptoms, in the presence of asthenic and anemic syndromes, hepatosplenomegaly, and lymphadenopathy in patients, the plan of differential diagnosis should include an examination for helminthic infections.

Pliushko D., Lievashova A., Yanovskaya A.

THE CLINICAL CASE OF THE COMBINATION OF PROGRESSIVE BECKER MUSCULAR DYSTROPHY, MITOCHONDRIAL DYSFUNCTION AND SECONDARY REACTIVE HEPATITIS

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Actuality. Becker muscular dystrophy is an inherited disorder that involves slowly worsening muscle weakness of the legs and pelvis. It occurs in about 3 to 6 out of every 100,000 births. Mitochondrial dysfunction — is typical pathological process that can be caused by different pathogens. It is important to study these disorders due to the presence of sufficiently effective therapeutic correction possibilities.

The aim to study the features of the the combination of progressive Becker muscular dystrophy, mitochondrial dysfunction and secondary reactive hepatitis.

Materials and methods: we studied the case history, published data and the nature of the clinical manifestations, deployed in time.

Results: nine-year-old child was directed for consultation with complaining of convulsive disorder, excessive mobility, impaired attention, fatigue.When he was three years old the delayed speech development was diagnosed. Neurological assessment: signs of pyramidal insufficiency. Additional studies: biochemical analysis of blood - lactic acidosis 4,13 mkmol/l, persistent significant increase of CPK 7646,9, persistent elevation of transaminases; GCMS of organic acids in the morning urine – there are metabolites of mitochondrial dysfunction and metabolic disturbances of fatty acids with very long chain; EMG - signs of pyramidal insufficiency; molecular genetic study - deletion of 45, 47 exons of the dystrophin gene. It was diagnosed: Progressive Becker muscular dystrophy, mitochondrial dysfunction, secondary reactive hepatitis.

Conclusions: in this clinical case we want to show the possibility of combining of different rare genetic and acquired diseases, which have non-specific clinical manifestations. In such cases children need a comprehensive survey to identify the causes of the disease, medical and genetic testing to eliminate hereditary diseases. Only this diagnostic approach can help to choose the right tactics for each patient.

E.Podgalaya, T.Teslenko, A.Senatorova

FEATURES OF CONDITION OF CARDIOVASCULAR SYSTEM IN NEWBORNS WITH DIABETIC FETOPATHY

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Actuality. If a pregnant woman with diabetes has inadequate glycemic control the fetus has already in the first trimester of pregnancy signs of diastolic function disorders of the left ventricle (LV) and also there is a high incidence of adverse neonatal period in newborns.

The aim of the study: to assess the condition of the cardiovascular system in newborns from mothers with diabetes, to establish the frequency of cardiac arrhythmias, to determine the criteria of verification of diabetic cardiomyopathy (DC).

Materials and methods: the study involved 48 infants: the 1st group - 33 children from mothers with diabetes, the 2nd group - 15 healthy newborns. Our study is based on physical examination, obstetric history and instrumental methods such as ECG, Holter ECG-monitoring, Doppler echocardiography.

Results: first type diabetes was found in 84.8% of mothers, gestational diabetes - in 15.2%. All women had complications during pregnancy. The structure of the clinical manifestations consists of: macrosomia - in 21.2% of newborns, edema - in 27.3%, petechiasis - in 18.2%, hypertrichosis - in 9.1%, systolic murmur at the apex of the heart - in 54.5%, hypoglycemia – in 33.3%, respiratory distress syndrome - in 18.2%. Diabetic fetopathy (DF) was diagnosed in 90.1% of children. According to ECG disorders of repolarization processes were detected in 33.3% of newborns.

According to the results of Holter ECG-monitoring in infants with DF such features were found: episodes of sinus tachycardia up to 200 BPM (77.8%), atrial extrasystoles (44.5%), blocked atrial extrasystoles (22.3%), elongation of the QT interval (22.3%) and disorders of repolarization (66.7%). According to Doppler: moderate dilatation of the right heart chambers and the reverse current on the tricuspid valve I-II were found in 72.7% of children with DF, regurgitation on the valve of the pulmonary artery - in 18.2%, small anomalies of the heart development - in 33.3%, atrial septal aneurismal deformation - in 30.3%, transient pulmonary hypertension - in 18.2%. In infants with DF identified: changes of the end-diastolic dimension of LV

more than 2 sigma-deviations according to Z-score scale ($p<0.01$), thickness increasing of the back wall of LV ($T>4.0\pm0.5$ mm, $p<0.05$) and interventricular septum ($T>4.7\pm0.65$ mm, $p<0.01$); increasing of the pressure gradient in the outflow tracts of LV more than 10 mm Hg ($p<0.01$), contraction dyssynergia of the myocardium - in 18.2%, diastolic dysfunction of LV as slow relaxation type - in 75.8%.

Conclusions: in 87.9% of infants with DF structural and functional changes in the cardiovascular system were found. They are hypertrophy of the ventricles, cardiac arrhythmias and diastolic dysfunction of LV as slow relaxation type. The criteria for the diagnosis of DC are hypertrophy of the interventricular septum and back wall of LV and increasing of the pressure gradient in the outflow tracts of LV.

Popova T. O.

FEATURES OF CARDIOVASCULAR RISK IN CHILDREN WITH BRONCHIAL ASTHMA

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Actuality. Bronchial asthma (BA) takes leading place among chronic diseases of respiratory system. Chronic hypoxemia is the most common consequence of BA, especially in severe stages of the disease, and becomes the major factor of cardiac dysfunction and pulmonary hypertension. High pressure and its further raising is important mechanism, which can change the myocardium electromechanical activity, central and peripherial hemodynamics, heart diastolic function. Functional changes of CVS in patients with BA occur as a result of hypoxemia negative effect on myocardium metabolism and vessels' vasoconstriction. This may be the cause of cardio-vascular and pulmonary failures in case of severe stage of disease. Changes of the CVS under conditions of the bronchopulmonary pathology develop slowly and for a long time have an obliterated character. Cardiovascular deviations in BA are potentially inversive in childhood what demands their early detection and elimination.

The aim evaluation the risk development of cardiovascular disorders in children with bronchial asthma.

Material and methods: the 85 children from 7-16 years who had bronchial asthma were observed. The 1th group (1gr.) - 37 children with mild persistent asthma, the 2 group (2gr.) – 48 children with moderate and severe bronchial asthma. Examination were carried out in the period of exacerbation and remission. To evaluate pulmonary hemodynamics used by Doppler echocardiography. External respiration function was studied use a method of pneumotachography with measurement of the indexes: FEV1, MEF-50, MEF-25, pulmonary volumes, respiratory resistance (RFO). Statistical analyses were performed with a statistic package "Exel" and "STATISTICA 7.0".

Results: reliable direct relation between indexes of PLA and RFO has been established in the period of exacerbation (r=+0,67, p≤0,012 - in 1gr. and r=+0,75, p≤0,001 -2gr.). Inverse relation between MEF-50 and the diastolic diameter of the right ventricle (ddpg) of the 2gr. were significant (r=-0,56, p≤0,012). In the period of remission in all groups are saved direct correlations between parameters of RFO and PLA, especially with RFO-ex (1gr.r=0,743, p≤0,002; 2gr. r=0,76, p≤0,001). In the 2gr.were indicated direct relationship between RFO and ddpg (r=0,63, p≤0,001). And moderate significant inverse relationship between PLA and MEF-25 (r=-0.52, p≤0.001); and FEV1 with ddpg (r=0.48, p≤0,001).

Conclusions: functional condition of the cardiovascular system depends on type and severity of bronchial asthma: in the period of remission saved unidirectional relation of children of the second group, which is associated with severe course of bronchial asthma and the possible remodeling of the pulmonary vessels and airways, what can increases the risk of cardiovascular disorders development.

Potikhenska K.

TRAUMATIC LEUKEMIA MASKS IN CHILDREN

Mentor: Ass.Professor Piddubna I.N.
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Kharkiv national medical university

Actuality. Problem of leucosis in children is especially important for modern health care. It is caused by its rising trend, high morbidity and mortality.

Aim. To increase practical health care physicians alertness during differential diagnosis of bone lesions in children.

Materials and methods.Submitted 4 extracts from the history of disease in children who were observed for a long time, and traumatologists treated in the trauma hospitals, whose primary disease was acute leukemia.

Results. Children arrived to hematological department with complaints for general fatigue, fever, loss of appetite, the appearance of petechial rash on the mucous membranes and ecchymosis without cause. Initially, children were placed in connection with the diagnosis of trauma pathology, however, acute lymphoblastic leukemia was diagnosed with the additional examination. At present, children are at the protocol treatment, supportive therapy or removed from the register in connection with the recovery.

Conclusions. The differential diagnosis is a complex thought process, which leads to simplification of diagnostic errors. Treatment of the disease and its outcomes largely depend on the knowledge, experience and - most importantly - a doctor's care.

Isa Mashkur Abdulhamid, Patel Priyanka Harishchandra, Uliana Ivanivna Marusyk

THE MARKERS OF ATOPIC REACTIVITY IN SCHOOL-AGE CHILDREN WITH SEVERE ASTHMA

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Introduction: A major challenge among modern pediatric allergic diseases is bronchial asthma. Assigning asthma control therapy to children should be considered based on the phenotype. Hence, performance of atopic reactivity in children that reflect the specific pathogenic mechanisms of asthma will personalize treatment and thus improve management of asthma.

Aim: To increase the effectiveness of treatment of severe asthma phenotype in school-age children, taking into account the diagnostic value of atopic reactivity indicators.

Materials and method: 60 school-age children suffering from asthma were comprehensively examined in the pulmonology department of Chernivtsi Regional Children's Clinical Hospital. The study involved 30 pupils with severe asthma and 30 children with moderate course. The content of serum total immunoglobulin E(IgE), IL-4 and IL-5 were determined by enzyme-linked immunosorbent assay (ELISA). Determination of immediate type skin sensitivity to nonbacterial standard allergens was performed by intradermal tests. To study atopy, standard household, epidermal, pollen and food allergen was used.

Clinical and epidemiological risks, as well as the diagnostic value of individual indicators of atopic reactivity for severe asthma phenotype verification were defined.

Results: About one in three patients (36.4%) with the phenotype of severe asthma recorded significantly increased content of IL-4 (more than 10.0 pg/ml), while only 15.5% in the second group ($P\varphi<0.05$). There was increased risk of relatively raised content of IL-4 and IL-5 in serum of patients with severe asthma. Almost every second child suffering from severe asthma noted increased concentration of IgE (>545.3 IU/ml). There were significantly more frequent cases of hypersensitivity to household allergens in the group of patients with severe asthma. Thus, a hyperaemia of more than 15.0mm was recorded in 81.5% of children of the first group and only in 51.9% ($P\varphi<0.05$) of the second.

Conclusion: The phenotype of severe asthma raises the risk of increased content of IL-4 and IL -5 in serum by 3.1 times. However, this

paraclinical test is rather suitable for verification of this phenotype (Sp – 84.6% (95% CI 75.9-91.1)) than for its detection (Se – 36.4% (95% CI 26.9-46.6)). Concentration of total IgE in serum of more than 545.3 IU/ml in children doubles the chances of severe asthma being present. Increased sensitivity to domestic allergens (hyperemia more than 15.0mm) allows severe asthma specificity verification (81.5%) and personalization of treatment policy in these patients.

Rud Viktoria

EARLY SYMPTOMS OF ACUTE LEUKEMIA IN CHILDREN

Research advisor: Afanasieva Oksana, PhD., Piddubna I.N., PhD.
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Actuality. Acute leukemia is relating to one of the most serious and important problems of children`s hematology. Nowadays timely diagnosis of this disease is one of the main aim taking into account modern capability of chemotherapy (achieving of remission in 80% of children with acute lymphoblastic leukemia and in 45% of acute myeloid leukemia).

The aim to investigate modern peculiarities of acute leukemia manifestation in children.

Materials and methods: we analyzed the clinical data of 26 children aged from 6 months to 18 years, who were treated at the hematology department of Kharkiv City Clinical Hospital №16 with acute lymphoblastic leukemia (76.9%) and acute myeloid leukemia (23.1%).

Results: in the majority of children (57.7%) diagnosis was made in 2 weeks to 2 months from appearance of the first symptoms, in third of patients (30.7%) – in 4-6 months, and in 11.5% of patient – in 6-12 months. The most common symptoms on admission were weakness (76.9%), decreased appetite (61.5%), pale skin (61.5%), pain in bones and joints (30.8%), hemorrhagic rash (53.8%), weight loss (15.4%), enlargement of lymph nodes, liver and spleen (84.6%), increase of body temperature up to febrile figures (57.7%). These children with diagnosis of anemia, lymphadenopathy, hemorrhagic vasculitis promptly got under the supervision of a hematologist. Onset of the disease under the mask of infectious pathology significantly complicated early diagnostics. Sometimes the disease started with abdominal pain. These children were directed to the surgical hospital with a diagnosis of ""acute abdomen"" that delayed start of treatment and influenced the prognosis.

Analysis of laboratory data showed that on admission 92.3% of children had decreased level of

hemoglobin; in 34.6% of them severe anemia was revealed, in 30.8% - moderate, and in 26.9% - mild anemia. Leukopenia was found in 34.6% of children, leukocytosis - in 42.3%, in 15.4% of children hyperleukocytosis more than 100x109/l was observed. 88.5% of patients had thrombocytopenia, in 38.5% quantity of platelets was less than 30x109/l, provoking pronounced manifestations of hemorrhagic syndrome. Blast cells in peripheral blood were detected in 84.6% of children, accelerated ESR - in 76.9%.

Conclusions: presence of symptoms of intoxication in combination with one or more syndromes - anemic, hemorrhagic, hyperplastic, immunodeficiency, requires exclusion of acute leukemia. Taking into account the variety of ""masks"" of this disease, lack of adequate therapeutic effect of standard therapy clinical blood test in dynamics and hematologist`s consulting is necessary.

Semenyuk M, Kyslov O.V, Pakhomova A.V.

REFRACTIVE TYPES IN PATIENTS WITH CONNECTIVE TISSUE DYSPLASIA

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Actuality. Pathology of the connective tissue may appear dysplastic changes, not only in one organ, but also multiple organs. Connective tissue dysplasia (CTD) is characterized by the systematic destruction and the local nature of the manifestation is caused by their own structural features, in particular, a violation of the architectonics of collagen fibrils, resulting in considerable extensibility connective tissue. Additionally constitutional features, large of phenotypic diagnostic features, there are small anomalies, which can act as a stigma dysembryogenesis in this pathology.

The aim was to analyzed type of refractive in patients with CTD.

Materials and methods: 52 eyes in 26 patients with EDS were included in the study. Male:Female ratio was 7:19. Mean age was 11,5±2,3 years (from 7 to 16). All patients were underwent common ophthalmologic examination.

Results: analysis of refraction revealed: in the 69,23% of cases in patients with CTD (36 eyes), were diagnosed myopia, the average value of which was 2,73±1,41D.

Myopic astigmatism diagnosed in 15,38% (8 eyes), which amounted to an average value -0,51 ± 0,57 D.

From the group of patients studied in any case not above

mentioned myopia 6,0 D, according to the literature although high myopia in patients with DST is a common disease.

The mixed astigmatism was observed in 11,53% (6 eyes). In 3,85% was observed in both eyes oblique hypermetropic astigmatism of 2-2.5 D, which is not typical for patients with CTD.

Conclusion: our research showed that the most common type of refraction in connective tissue dysplasia was myopia. The findings suggest that frequently encountered ocular manifestations during CTD include low and moderate myopia, myopic astigmatism.

Given the myopia caused by overstretching of collagen structures of the eyeball, you need an early detection and regular monitoring of patients with this pathology by an ophthalmologist.

Shakhzadian Lauritta

SUBCORTICAL - CEREBELLAR DEGENERATION

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Actuality. Subcortical and cerebellar degeneration is a type of cerebral malformation characterized by underdevelopment or absence of functional parts of the cerebellum, which in the clinical picture presented in the form of cerebellar disorders of varying severity. Me presented a clinical case of subcortical and cerebellar degeneration in the background of congenital disorders in the oxidation of fatty acids, complicated by Reye-like syndrome, which was confirmed morphologically.

Materials and methods: the child A., 1 year 3 months., admitted to the clinic for the first time at the age of 8 months with manifestations of seizures, which were clarified genesis of the child's stay in the clinic. The peculiarity of seizures in this child was gemioklonichesky syndrome, which is characterized by a constant limb clonus, despite high doses of combined anticonvulsant therapy. Life history is burdened, interruption threat gestational age 32-33 weeks, delivery on time with the weakness. Up to 7 months old baby behind in psychomotor development, the first neurological symptoms appeared after SARS, requiring exceptions neuroinfections, MRI of the brain in which the diagnosed subcortical and cerebellar degeniratsiya. Following initial treatment, the disease was of a progressive nature, which made it possible to assume the inherent metabolic disturbance that is confirmed in MHz Kharkov and typed as a violation of the exchange

of fatty acids in the oxidation. A child over 5 months was constantly under the supervision of doctors, but the layering of viral disease has resulted in metabolic catastrophe in the form of oppression of the central nervous system, myoclonic seizures, which were continuous in nature, not amenable to medical correction and the emergence of progressive liver dysfunction in the form of cytolysis (exceeding 10 standards) hyperbilirubinemia due to direct fraction and hypoproteinemia (viral hepatitis are excluded), which was seen as the development of complications such as Reye's syndrome. Against the background of the child's condition deteriorated therapy, complicated multiple organ dysfunction syndrome (cerebral, respiratory), and despite resuscitation, biological death was pronounced. At the postmortem examination of biopsy specimens: liver - liver diskompleksatsiya beam structure, hepatocytes are able to large-drop adipose degeneration with a break tsitolemmy and cytolysis. Kidneys - in terms of epithelial tubules fat distofiya - intracellularly within the cytoplasm of fat vacuoles. The brain - phenomena expressed perivascular, peritselyullyarnogo and perinuclear edema.

Conclusion: the clinical feature of this case lies in the combination of subcortical and cerebellar degeneration on the background of metabolic disorders of fatty acids with the further development of Reye-like syndrome.

Strelkova M., Silicheva A.

THE RISK FACTORS OF THE DEVELOPMENT OF CARDIOVASCULAR DISORDERS IN CHILDREN WITH GASTROENTEROLOGICAL DISEASES

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Actuality. Recently rapid development of preventive medicine based on preventive and corrective measures. Risk factors for cardiovascular diseases are divided into modified (smoking, obesity, dietary factors, low physical activity) and the non-modified (individual medical and family histories).

The aim of the article is to examine stratification of the risk factors for cardiovascular diseases in children with diseases of the digestive system.

Materials and methods: the survey respondents were 66 children aged from 2 to 17 years, girls - 32 (48.5%) and boys - 34 (51.5%) with

digestive diseases. The analyzed anthropometric data; generally recognized clinical laboratory and instrumental diagnostics, the "Genetic questionnaire" were used to verify the children's diagnoses.

Results: the anthropometric data analysis of the exanimated group of children showed that 42.4% of patients had normal level of BMI, 30,2% of patients had the increased level of BMI and 24,0% of patients had low level of BMI. The analysis showed that the normal blood pressure had 69.7% children prehypertension had 10.6% children and the stage 1 hypertension had 9 (13.6%) children. Muffled heart sounds was observed in 22.7% patients, functional systolic murmur in 37.8%, ECG changes in 68, 2%, monotop heart rhythm disturbances in 50%. According to the data ECHOCG r mild dilatation of the left ventricle was registered in 30.3% patients. The results obtained by the "Genetic questionnaire" was revealed: blonde hair in 54.5% of children, 68,5% of parents, blue eyes - 28.8% of children, 30.3% of parents, pale skin - 19.7% of children, 24.2% of parents ,vascular pattern on the skin - 13.6% of children, 10,6% of parents. Cardiovascular diseases had 28.0% of parents. Overweighed or obese were 22.7% of parents. Furthermore, 36.4% of the surveyed children led a sedentary lifestyle. Posture abnormalities had 45.5% of children and 6.9% of parents, propensity to fracture of bones - 15.2% of the surveyed children and 3,1% of parents.

Conclusion: the important factor of the development of cardiovascular disorders in children with chronic diseases of the digestive system can be genetic defects of folate cycle enzymes and the risk factors: early cardiovascular diseases in family anamnesis, smoking, overweight or obese. Stratification of the risk determines the probability of development of cardiovascular diseases; affects treatment strategy, allows to assess the individual prognosis and to identify groups for social and medical support.

Timoshenko Maxim, Kubeev Erbol

SYSTEM FOR MONITORING THE STATE OF HEALTH OF CHILDREN AS A TOOL FOR IMPROVEMENT OUTPATIENT SERVICE (FOR EXAMPLE KENTAU)

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Actuality: The analysis of the state of health of the child population the Republic of Kazakhstan shows that it is much worse than in most industrialized countries. If in the near future will not be significantly changed by the factors affecting health, we should expect its further deterioration.

World Health Organization, development and reform of primary health care is defined as a priority, the implementation of which ensures progress on all countries' health. Strengthening the health of children largely depends on the level of organization and quality of care, systematic observation (monitoring) the health of different groups of children of targeted preventive and promotive efforts.

Aim: To substantiate and develop measures to improve the organization of therapeutic and preventive care for children in South Kazakhstan region in outpatient clinics on the basis of the results of the study of dynamic child morbidity.

Materials and Methods: Questionnaires, statistical analysis, comparative analysis.

Results: It was found that during the period from 2006 to 2016 in the South Kazakhstan region marked increase in the incidence level for uptake among children under 14 years of age - 1.5 times to about 1801.1% to 2701.65% of among adolescents up to 18 years - by 1.1 times to 970.2% of up to 1067.22% of. It was revealed that the average incidence according to checkups for children from 0 to 7 years was 655.3% on a downward trend during the study period from 520.9% of (2008). To about 342.3% (2010.) after the proposed health and organizational measures. In the structure of morbidity from data checkups ranks first disease of the musculoskeletal system of 151.2%, the second place - respiratory disease of 127.5%, the third place - diseases of the circulatory system to -113.0%.

Conclusion: The system of monitoring the state of the child population and adolescent health provides an opportunity to optimize pediatric care at the regional level to identify the needs of children and adolescents in the pediatrician, as well as specialized forms of care to the outpatient phase of care.

Tiwari Pawan Kumar, Oyebamire Mussa Abimbola

INNOVATIVE BIO-TECHNOLOGICAL DEVELOPMENTS OF UKRAINIAN SCIENTISTS IN THE AREA OF PROBIOTICS

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Actuality. (AIT) is a chronic inflammatory disorder of the thyroid gland caused by abnormal blood antibodies and WBC that damage healthy thyroid cells. As accompanying disease AIT with rheumatic desease was studied in adult. Clinical manifestation of (JIA) in children with AIT is not investigated deeply.

The aim it was to analyze the clinical presentation in patients with JIA which is accompanied by AIT and possible relations with polymorphism of genes of folate cycle enzymes.

Matherials and methods: 9 patients with JIA of age group 2-18 years were divided in to 2 groups according to presenting of AIT. 25 % of patients, who developed AIT, were placed in main and comparison group. The diagnosis of AIT was based on rised level of thyroperoxidase antibodies, stT4, stT3 and USG of thyroid gland. The megerment of genotypes of genes of folate cycle,eg: 5-methyltetrahydrofolate-homocysteine (MTR), 5-methyltetrahydrofolate-homocysteine (MTRR), 5,10 methylenetetrahydrofolate reductase C677T and A1298C variants (MTHFR-677 and MTHFR 129) by (PCR). For statistical processing of materials stagraphics 3.0 and Student-Fischer test were used.

Results: in children with AIT infection as a trigger factor of manifestation of JIA more frequency ($p<0.001$) was found. In group of patients with AIT more common symptom of JIA onset was arthritis of knee joints ($p<0.001$) in comparison with children of 2 group, where JIA began from fever in 26.6 % patients, from rush - 14.3 %. Joints syndrome in persons from I group characterized by more frequent involving of ankle joints ($p<0.001$), presence of regional amyotrophy ($p<0.001$), proliferative type of arthritis without acute joint pain and swelling and with deformation and decreased range of motion of affected joints ($p<0.001$), fast development of limited joints function I-III degree ($p<0.001$). Children with JIA in accompanying with AIT more frequently had neutral alleles (AA) of MTHFR1298 gene ($p<0.001$) and heterozygous genotype of risk allele (AC) of MTHFR677 gene ($p<0.001$) in comparison with persons of II group. Differences of genotypes of MTR and

MTRR genes in comparison groups fell just short of statistical significance.

Conclusions: clinical presentation in patients with JIA which is accompanied by AIT is different in comparison with patients with JIA without AIT, it characterized by manifestation from knee joints, frequent involving of ankle joints, proliferative type of arthritis, fast development of limited joints function, frequently presenting of neutral alleles (AA) in MTHFR1298 gene and heterozygous genotype of risk allele (AC) of MTHFR677 gene.

Tkachuk Ljubov', Deonega Anna, Uryvaev Andrey

ANTIPHOSPHOLIPID SYNDROME. CASE STUDY.

Research advisor: PhD., docent Uryvaeva Marina Kuzminichna
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Actuality. Antiphospholipid syndrome (APS) is a variant of system thrombotic vasculopathy of autoimmune origin. The disease is more common among young people (20 - 40 years), but can also affect young children and infants. Late diagnosis of APS leads to dysfunctions of the central nervous system, cardiovascular system, kidneys, liver, endocrine glands, gastrointestinal tract.

The aim describe such a rare disease of childhood with the definition of criteria for the diagnosis at the earliest possible time.

Materials and methods: child D., 5 years 2 months old, was treated at the neurology department of the RCCH, Kharkov. In admission to hospital mother complained of attacks of tonic-clonic seizures in the right extremities, vomiting, cramps in the background. From history we know that the child was born from I pregnancy, occurring against the backdrop of I half edema syndrome at mother. On the 3rd day of life the child has a tonic-clonic seizures, in connection with which it was treated at the Department of Anesthesiology and Intensive Care, where diagnosed intracranial hemorrhage, which was seen as a birth injury. At the age of 1 year, the child had an episodes of tonic-clonic seizures occurred against the background of raising temperature to 39°C. At the age of 1 year 2 months old, attacks were with fading and red face.

Results: an objective examination in the hospital: general state of moderate severity. Severity of the condition is caused by neurological symptoms. The liver is palpated to +2 cm, dense consistency. Spleen +1cm. Neurological status: consciousness is

kept, drowsy. The head is round. Marked flattening of facial muscles on the right. Reduced range of motion in the right extremities. Reduced muscle strength in the right extremities. Proprioceptive reflexes increased, D>S. In the clinical analysis of a blood relative moderate neutrophilia, lymphopenia. Urinalysis and stool without deviation from the norm. Biochemical analysis of blood: increase in alanine aminotransferase to 0,25mkat/l. Antiphospholipid antibody IgG - 18,2 U/ml for IgM - 6.3 U/ml. ECG: sinus rhythm, repolarization broken. EEG pattern expressed disturbances. Symptoms of paroxysmal activity presented diffuse sharp waves, polygenic activity. MRI study of the brain: signs of asymmetric internal hydrocephalus. Based on these facts were find the consequences of intracranial hemorrhage. During treatment in hospital the child's condition improved slightly.

Conclusions: feature of this case is the late diagnosis of antiphospholipid syndrome. Because APS is a system thrombotic vasculopathy, in the presence of organic CNS symptoms in the first place, it is necessary to suspect this pathology, and complex diagnostic procedures include a detailed medical history, identification of antiphospholipid antibodies AT IgG in the blood.

Yanovska K., Moskalenko V., Tereshchenko S.

Microbiological status of the children with cystic fibrosis in Kharkiv region

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Actuality. The basic respiratory tract microflora in cystic fibrosis (CF) is Staphylococcus aureus (S. aureus) in the initial period, then Haemophilus influenza (H. Influenza) and Pseudomonas aeruginosa (P. aeruginosa). In recent years, the role of Burkholderia cepacia (B. Cepacia), Nontuberculous mycobacteria, Stenotrofomonas maltophilia (S. Maltophilia), Alcaligenes xylosoxidans (A. xylosoxidans), Aspergillus sp. and others has increased.

The aim to define correlations of microbiological status in CF patients with the disease morbidity.

The materials and methods: 30 CF children are followed-up in the Pulmonology Department of Regional Children's Clinical Hospital No. 1. 23 CF children (12 boys and 11 girls) underwent complete physical examination in 2014 year. Clinical and paraclinic (bacteriological examination of sputum) were performed.

Results: the following CF-specific respiratory pathogens were determined in sputum culture in 23 children, who were treated in the Pulmonology Regional Children's Clinical Hospital No. 1. 23 in 2014: P. aeruginosa – in 13 (56,5 ± 10,3) % children, in (80,9 ± 8,1)% cases the heavy colony growth was observed, and in (19,1 ± 8,1) % – the moderate growth; S. aureus – in 10 (43,4 ± 10,3) % patients, B. cepacia in (13 ± 7) % patients, S. maltrophilia – in 1 (4 %), Acinetobacter 1 (4 %), A. xylosoxidans 2 (8 %), Candida 16 (70 ± 9,5) %.The most frequent association was combination of P. aeruginosa + S. aureus in (22 ± 8,6) % patients, and P. aeruginosa + B. cepacia in (13 ± 7) % patients. Except P. Aeruginosa, the following nonfermentative gram-negative microorganisms were determined in those associations – S. maltophilia – in 4 % patients.

In the group of severe patients the chronic P. Aeruginosa colonization was observed in 8 (100 %) children, in 4 (50 ± 17,6) % of them – together with S. aureus, S. maltrophilia (1), Acinetobacter (1), A. xylosoxidans (2), B. cepacia complex – in 3 (37,5 ± 17,1) %. The earliest age of the observed chronic colonization was 6 months. P. aeruginosa, B. Cepacia were significantly more frequent in group of patients with severe CF than in group of children with moderate severity ($p < 0,05$). Determination of these infections in CF patients' sputum may be the adverse prognostic factor for the disease severity. Multi-drug resistant strains of P. Aeruginosa were observed in groups of patients with severe CF in 50% and significantly more frequent, than in group of children with moderate severity.

The conclusion:

1) Condition severity of CF patients is associated with chronic infection by P. aeruginosa and B. cepacia.

2) None of patients in Kharkiv region has determined any of pathognomonic respiratory causative microorganisms – M. Tuberculosis and non-tuberculous micobacteria, H. influenza, Ralstonia picketi.

PREVENTIVE MEDICINE

Adeyemi A.A.

THE EFFECTS OF SOME ENVIRONMENTAL FACTORS ON THE REPRODUCTIVE SYSTEM

Research advisor: Chehovskaya I.N., MD
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Actuality. According to recent reports, 2-3% of newborns have congenital malformations. These malformations are caused by interaction of genetic and environmental factors. Exposure of paternal or maternal organisms to environmental hazards may damage germ cells resulting in malformation of various organs.

The aim of the research, based on literature review discusses the effect of selected environmental factors on the female and male reproductive system, fetal development and growth.

Materials and methods: severalresearch publications, journals, write ups and articles.

Results: In the 1930s, DES (diethystilbestrol), a synthetic hormone was developed with the aim of preventing miscarriages. DES was administered to approximately 10 million women worldwide and caused devastating damages to females. For instance, mothers who took DES had daughters who later suffered from clear-cell vaginal adenocarcinoma, uterus abnormalities and difficulties in conceiving. Male offspring were not spared, as they also suffered from epididymal cysts, hypospadias, and cryptorchidism. Even the women who were on DES medication were not spared as they showed higher rates of breast cancer development. DBCP (dibromo-3-chloropropane), a pesticide used in banana & pineapple plantations. This pesticide has been linked with azoospermia and oligospermia in 64 to 90% of men exposed for 3 years, failure of spermatogonial development in rats. DBCP-treated human sperm does not penetrate the oocytes.Paternal exposure to: Hg, ethylene oxide, rubber chemicals, solvents have been linked to spontaneous abortion, there have been links between painters and anencephaly, welders/mechanics and Wilms tumor, Textile industry workers and still births/pre-term delivery.

Conclusions: given the persistent nature of DBCP contamination in areas of past use, and also other environmental factors, efforts should be made to remediate these areas and to follow exposed populations for development of certain human cancers, including breast, ovarian, stomach, and respiratory, oral and nasal cancers, among others. It is

important to study more of these environmental factors to determine their effect on human reproductive health, and thus prevent their catastrophic consequences.

Alale Mumuni Anass, Sibamba Mutelo Faith

INFLUENCE OF EMOTIONAL AND VOLUTIONAL SPHERE ON THE STUDENT'S EDUCATIONAL ACTIVITY

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Actuality. Contemporary world is a difficult, ambiguous time that combines with globalization, the military and religious conflicts, information technology and low level of economy. Some times in this world it is difficult to find the correct guidelines, priorities and especially for a young person, whose psychis not yet completely formed and can asily give into negative influences from outside.

Aim of this work. To reveal the influence of emotional and volutional sphere on foreign students while study in gat the university.

Results: contemporary research in psychology and pedagogy demonstrate that it is important for every student (both Ukrainian and foreign students) that not only his physical condition, but also the ability to consciously respond to the processes of the environment reflects in the brain and are relieved like satisfaction ordis pleasure in this emotional state and volutional sphere. For a foreigner who comes from another country for studies, it is a peculiar stress, that to overcome requires time. At first, the process of the adaptation is fast, which is caused by new friends, classes and individual characteristics (temperament, character, ability). But at the same time, the student often feels loneliness and despair, because sometimes friendship is not formed with the group members. Also the fear may be caused by the (presentiment accomplishment in the full) volume of the academic load. All these factors lay heavy weigh to his emotional state. As a result, he does not feel the inner harmony and the pleasure of learning, then loses interest in any cognitive activity. As a result, there are problems with attention, to replace the joy, openness, sincerity come pessimistic thoughts that lead to stress. The stress that build sup, preventing the full and multifaceted life of a young man narrows the range of his interests to a minimum and may even lead to frustration,

disorganization as lack of awareness and training activities.

The student should not be exposed to the seemotions, do not try to run away from this, and try to analyze their behavior and actions, understand, identify the cause, rectify the situation and avoid it in the future.

Conclusions. That to avoid appearance of stressful situations, it is necessary to think positive, set goals and go hard for it and understand that the problem is part of our lives and try not to focus only on them butal so realize that there is another side of life. It is necessary during training not to forget about the free time to visit gyms, museums, cultivate aesthetic feeling and confidence and to educate the feels of respect to other opinions, discover the new skylines for dreams and achieve them.

Andrew Brian Amoah-Danful, Reznichenko O.G., Grygorian O.V.

PSYCHOLOGICAL EFFECTS OF SOCIAL MEDIA

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Introduction. We live in an age of massive technological advancement and find ourselves on a daily basis surrounded by computers of all sizes that have immense power. In our desire to be connected to other people all over the world, various “social networks” have been brought into existence by virtue of the internet. The result of all this is unprecedented interaction with electronic screens in our need to be “online”.

Aim. To determine the extent of the psychological toll that social networks such as Facebook, Snapchat, Instagram as well as messaging applications like WhatsApp have on the population, with a special look at the effect on students.

Materials And Methods. A group of thirty students currently residing in Kharkiv, Ukraine were involved in the study. Participants were asked a series of questions within a three week period concerning their use of social media. Furthermore software installed on their phones and tablets was used to measure the time spent on social media applications and websites.

Results. Out of the 30 participants, 29 admitted to regularly being distracted whilst in class by notifications, 25 to spending time on their phones when they were in a room with other people, 24 to regularly being indoors for more than 4 hours a day because they were on their phones or tablets, 20 to sleeping at least an hour later than

they normally would without access to social media and 12 also said they found it quite difficult to sleep at night. Also 15 of the 30 believed that their usage of social media in one way or the other affected their relationships with their close friends and relatives. Furthermore, students that spent about 3 hours or more on social platforms admitted to succumbing more to depression than in those whose usage was less. Finally, students who continually had good grades were found to spend on the average not more than 45 minutes a day on social platforms. There were exceptions, however, as 2 excellent scoring students used social networks for about 4 and 5 hours respectively, everyday.

Conclusion. Clearly, a major effect is seen is in the constant flow of notifications that make students vulnerable to distractions. Students' sleep also seemed to be affected. Studies by Burkhart and Phelps (2009) and Sasseville et al (2009) point to the fact that blue light emitted by screens of mobile devices is a culprit in disrupting sleep. Also, as witnessed from the results, students who spent less time on social platforms could make more time for their studies.

However, the results obtained for this study could not yet be fully ascertained as no control group was involved in the study and subsequent work done will look into that. Nonetheless it seems to be clear that social media does have a negative effect on mental health.

Antonovich Svetlana

SOME PROBLEMS OF SOCIAL AND PSYCHOLOGICAL ADAPTATION OF THE VISUALLY IMPAIRED DISABLED PEOPLE

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Actuality. The increasing number of the visually impaired disabled people is one of the up-to-date problems of our society. Disturbing or losing of vision leads to the changing in mentality and behavior. Such persons are characterized by their own rhythm opposite to the usual life stereotype which is accompanied by psychological difficulties of adaptation in the society.

The aim. This work is devoted to the peculiarities of social and psychological adaptation of the visually impaired people to the conditions of modern society.

Materials and methods:

sociological interview, questionnaires, training.

Results. Defects of vision disturb personnel interaction in the society, as a result it is difficult to establish and maintain social contacts, it is a so-called "falling out" of society. There is a problem of mutual relations developing between members of different groups, including disabled persons. The peculiarities of such relations influence on the psychological state of the person, his attitude to educational work and social activities, to others, to himself.

The blindness becomes a psychological problem when people with disabilities are aware of their own unlike healthy people. They cannot fully satisfy their material and spiritual needs (93% of respondents), content with a small range of interests (68% of respondents), they are permitted to engage in certain types of activity (77% of respondents). The person with defects of vision shows negative character traits. For example, selfishness, stubbornness, negativism, indifference etc. Such traits as isolation, unsociability are an indication of the limited contact between persons with disabilities on the vision and others.

It is possible to overcome the negative emotional states of persons with disabilities in the case of creating the conditions for a successful compensatory adaptation. The most important condition is the inclusion of the visually impaired persons in the activity, the forming of their positive motivation and attitudes. As soon as the persons with disabilities are aware that they can work, take care of themselves in everyday life, they restore their social status if only partially are involved in activities. So it is beginning of the process for going out a state of psychological conflict.

Conclusion. Adaptive process of the persons with disabilities is necessarily accompanied by their active position in the groups. The purpose of communication, learning different ways of perceiving and understanding the partners' communicative act enables to significantly expand the area of communication of each person with the vision defect and thus realize their social and psychological adaptation.

Bogachova O.S., Mensah Seth Omari, Skibo O.Yu.

RISK FACTORS OF AGRICULTURE IN GHANA

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Introduction: Agriculture is a risky business. Farmers and fishermen always have had to cope with a wide variety of risks. Basically risk factors of agriculture are factors that affect the environment negatively. Since 40% of health problems in Ghana arise from agricultural risk factors, my aim is to investigate about those risk factors.

Aim: my purpose is to enumerate all the possible risk factors of agriculture to the environment and the things in it In order to understand a better way of farming and fishing.

Materials and methods: our investigation states the possible effects of the risk factors therefore It will be better to ensure the use of information vans to educate farmers and fishermen on the risk factors and ways they can farm and fish to prevent risk to the environment, moreover the organisation of seminars also can help to educate farmers and fishers on agricultural risk factors.

Results: some farmers and fishermen in some communities in Ghana are using the right way of getting their products especially the use of natural fertilizers for soil and burning farming residues far away from the community which has prevented respiratory diseases. Fishers also use food and animals to rather than chemicals or artificial light to attract fishes which also has prevented water borne diseases since they have understood its hygienic norms.

Conclusions: thus, our investigation and preventable methods has been understood with its hygienic norms thereby has minimized risk factors of agriculture which to some years to come agriculture would be done in a right way with risk factor free.

Dziuba. V.

PATHOGENIC PROPERTIES OF EDIBLE MUSHROOMS

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Actuality. Mushrooms are the most balanced and nutritious product of plant origin and contain plenty of proteins, amino acids. It has recently been more and more cases of poisoning with edible mushrooms. Together with edible mushrooms grow their poisonous "doubles", representing a mortal danger to humans. Despite the well-known external signs of poisonous mushrooms annually occurs serious mass poisoning ending in some cases with death. There are about 25 species of poisonous and harmful mushrooms in our country. Poisoning can cause poisonous mushroom or incorrectly cooked edible mushrooms or "mutants" (mushrooms, which accumulate toxic substances, degradation products of mushroom proteins and waste products of insects).

The aim To study how can edible mushrooms acquire poisonous properties.

Materials and methods. Bibliography semantic method.

Results of research. When the fungus begins to grow old, the process of self-destruction, biomass decrease and reactions of disintegration of tissues start. The result is the formation of toxic protein source, ammonia, phenols. Eating these mushrooms without sufficient heat treatment or even raw can cause toxic effects on the human body. The most toxic mushrooms are Amanita phalloides from Amanita family - contains toxic polypeptides, and amanitines, faloidines; Amanita muscaria - contains toxic substances muscarinic, choline, putrescine, hallucinogen bufotenin; Gyromitraesculenta - contains heat-resistant hepatotoxic toxin gyromitrin. In recent years, edible mushrooms researchers noted a high concentration of pesticides, heavy metals, radioactive substances. When it enters the body, they cause poisoning. Mushrooms can absorb heavy metals from the environment. Fungi contamination by heavy metals is more dangerous to humans when they enter into the structure of the fungus and includes in the biosynthetic process, forming unusual mushroom compounds, toxic to humans. The main adversely effects to the living organism include blocking enzymes, tissue respiration, carcinogenic effects, mutation. Artificial radionuclides makes the greatest influence on mushrooms. Radioactive substances distribute in the mushroom differently: the plates contained 48%, the bonnet 33%, the stipe 19%. Under the influence of

radiation occurs damage to DNA and enzyme systems. The genetic material of cells lose the ability to reproduce and eventually dies or creates a new cell progeny. These modified cells can give rise to generation of mushrooms with unusual properties.

Conclusions. Edible mushrooms acquire pathogenic properties in the process of aging of the mushroom, the development of flies, worms that produce toxic waste products, because of environmental contamination with xenobiotics. In addition, poisonous mushrooms often mimic the appearance of edible.

Elkosh Mohamed Moneir

STUDY OF ANTIBACTERIAL ACTIVITY OF COMBINATIONS OF TEA TREE ESSENTIAL OIL WITH ANTIBIOTICS AGAINST OPPORTUNISTIC MICROORGANISMS IN VITRO

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Actuality. Due to absence of a proper antibiotic policy or non-adherence to it firmly, common strains of bacteria develop new mechanisms of resistance to widely used antimicrobial agents which are used for many years. These strains are still increasing in number by the time. The resistance has been observed in both Gram-positive and Gram-negative bacteria isolated from specimens of patients with community-acquired and hospital-acquired (nosocomial) infections.

A new revolution in the field of combating antibiotic resistance is the development of new pharmacological regimens by using combination therapy of conventional antibiotics with essential oils as sort of phytopharmaceuticals. This combination therapy exhibits efficacy even with plasmid-conferred multidrug resistant bacteria.

The aim of our research was to investigate synergistic outcome between the tea tree essential oil (Melaleuca alternifolia) and antibiotics against facultative anaerobic bacteria such as standard strains Staphylococcus aureus ATCC 25923, Staphylococcus epidermidis ATCC 14990, Escherichia coli ATCC 25922 and Klebsiella pneumoniae ATCC 5505.

Materials and methods: Antibacterial activity of the tea tree essential oil and antibiotics was studed by disc diffusion test according to recommendations of the International Committee of Clinical Laboratory Standards (NCCLS, 2002).

Results: The tea tree essential oil was dissolved in ethanol and introduced into melted and cooled meat pepton agar at a concentration of 70 mcg/ml or 0,007 wolume %. Suspension of microorganisms (microbial load 2•109 CFU/ml) was added on the surface of cooled agar then standard paper discs with antibiotics were placed. Inoculated Petri dishes were incubated in an incubator at 370 C for 24 hours. Record of the results was carried out by the diameter of the zones of growth inhibition around the discs.

Synergistic effects of the tea tree essential oil were demonstrated in combination with doxycycline, ceftriaxon, cefoperason and ciprofloxacin against both Gram-positive and Gram-negative bacteria. Besides that the tea tree essential oil enhanced the azithromycin, cefuroxim and clindamycin activity against S. aureus. Doxycyclin and ofloxacin were more effective in combination with the tea tree essential oil against K. pneumoniae. Essential oil also potentiates the effect of cefotaxime and ofloxacin against E.coli.

Conclusions: Synergistic effect of the tea tree essential oil with antibiotics decreases the minimum effective dose of antibiotics in the treatment of infections that reduces the adverse effects of antibiotics. For continuation of these promising investigations we need more studies about molecular basis of synergistic interactions to understand its mechanism of action more and more.

Litvinenko A.

POLLUTION OF DRINKING WATER WITH HEAVY METALS SALTS AND REMOVING THEM FROM SOLUTIONS BY MEANS OF NANOCOMPOSITE ZIRCONIUM (IV) OXIDE

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Actuality. Last years in Ukraine among the most dangerous environmental pollutants are the heavy metal salts, heavy metals themselves, phosphates, nitrates, nitrites.

The aim of the investigation was to study the increasing of harmful gases emissions to the atmosphere from cars, pollution of the water basin through various harmful and uncontrolled household wastes reduce the quality of natural waters, cause a dysfunction of the gastrointestinal tract, nervous and immune systems, have a great burden on the liver and kidneys,

violate the water-salt balance, change the rhythm and the work of the body.

Matherials and methods. The scientific data obtained in recent years allow to assume that an increase of heavy metals emissions to the environment is capable of exerting an immunotoxic effect, to stimulate the development of cancer and autoimmune diseases.

Results. The increase of heavy metals content and their salts in the water, the increase of their emissions to the environment, the poisoning of soils and food products by them are the basis for complex researches, an application of the modern ways of heavy metal ions extraction and their salts from water solutions by nanocomposite sorbent "zirconium (IV) oxide - activated carbon", the search for new means of the development prevention of chronic intoxications in the population.

The purification of water samples by this method gave the results that allow us to assert the water that was purified by these methods corresponds to all hygienic normatives, requirements SSanPiN 2.2.4.-171-10 – The state sanitary norms and rules of "Hygienic requirements for the drinking water intended for human consumption" on sanitary-chemical indicators. The obtained results show that the developed methods of performance of heavy metals concentrations measurements can be applied in clinical laboratory practice for both the diagnosis of acute poisoning and during execution of occupational pathological researches because the main criterion of environmental quality and ecological safety indicator is the health of the population.

Conclusion. The presented data show that the pollution of environmental objects, including drinking water, by means of salts of different metals can have some serious consequences for healthy man and points to the need for constant monitoring and adoption of appropriate actions. It is established that the sorption capacity of nanocomposite sorbent for Cu2+ is 11 mg/g, Pb2+ is 85 mg/g. In the work is shown the character of Cu2+, Pb2+ sorption extraction in time and that the obtained sorbent not only better removes Pb2+ but is more selective for it. The sorbent may be used in water treatment processes from heavy metals and activated carbon is promising for removing heavy metals ions.

Medyanik E.A., Boyarskiy O.O.

ANALYSIS OF THE IMPACT OF EXOGENOUS FACTORS ON INDICATORS OF KHARKIV NATIONAL MEDICAL UNIVERSITY STUDENT'S HEALTH

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Actuality. The problem of the student's health is one of the most important for society in general and for medicine in particular. College students are special social groups. Large intellectual stresses, sudden changes of a usual way of life, the necessity to adapt to the new conditions of intellectual labor, accommodation and food can be attributed to the group to a significant risk of disease development.

The aim. To assess the impact of exogenous factors on the indicators of the state of KhNMU student's health.

Materials and methods. There were 605 medical students under supervision. The health of students studied on the basis of in-depth medical examinations by specialists of the Kharkiv Regional Students' Hospital №20.

Results. The most common diseases of medical students were the chronic diseases the eye and adnexa. So the students values were equal to 30,14 ± 1,76% boys and 29,02 ± 1,53% girls, p> 0.05. However, among this group of diseases prevailed violation of refraction and accommodation. More than 78.89% of medical student's disease in this group was presented myopia. The diseases of the nervous system were on the second place among medical students. So these ones had 19,33 ± 1,11% boys and 17,60 ± 1,03% girls, p> 0.05. The diseases of the musculoskeletal system and connective tissue were represented mainly scoliosis, flat feet and arthropathy. The level of these diseases amounted 17,01 ± 1,06% boys and 15,79 ± 0,98% girls, p> 0.05. The chronic diseases of the digestive system were introduced mainly diseases of the esophagus, stomach and duodenum. The proportion of these diseases was 15,55 ± 0,94% boys and 14,23 ± 0,77% girls, p> 0.05. The respiratory diseases accounted for 9,02 ± 0,56% and 10,36 ± 0,67% in boys and girls, p> 0.05. Therefore the rate of chronic morbidity study group of the student youth showed no significant differences (p>0.05). In the structure of chronic illness on the first place there were diseases of the eye and adnexa, on the second – diseases of the nervous system, the third - diseases of the musculoskeletal system, the fourth – diseases of organs of digestion and respiration.

Conclusions. The unsatisfactory health status of

students can be associated, primarily, with violation of the regime of the day (a shorter night's sleep, irrational organization mode of work and rest), disorders of qualitative and quantitative nutrition, physical inactivity, inadequate sanitary-hygienic conditions of educational process organization at the university, the lack of programs to the prevention and correction of the eye pathology and other diseases, the level of medical care to this cohort, and with the careless attitude of students to their health and the presence of harmful habits.

Mohamad Sultan, Enemegene Eserogene, Katelevskaya N.M.

PREVENTION OF STRESS DISORDERS OF STUDENTS IN MEDICAL UNIVERSITY

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Actuality. According to the literature on the health status of the population in different countries there is present a strong tendency to growth psycho-emotional disorders in young people.

The aim. The study of stress levels of the foreign students (english-speaking). Rationale measures for the prevention of stress disorders in students of Kharkiv National Medical University.

Materials and methods. Analysis of stress among foreign students made by examining the literature and a survey of foreign students. The poll involved 135 3rd year students of the Medical Faculty. In the survey, the following methods of stress evaluation were used: Scale of Holmes and Ray stress, study level and resistance to stress, questionnaire assessment of personal anxiety by Spielberger.

Results. According to poll results over 82% of foreign students have varying degrees of stress disorders. Analysis of risk factors of stress among students has shown that the most important are social factors, such as separation from family, change of residence, financial difficulties and other. Long-term stress can cause a lot of physical and mental problems: decreased performance, social exclusion, chronic fatigue syndrome, depression, neurosis, some psycho-somatic diseases, such as hypertension and other. In some cases decrease in academic performance also occurs in the stress result.

Conclusion. Prevention of stress disorders among university students is an important way of maintaining their health and a high level of assimilation of knowledge.

Nlend Michel Pharrell, Olamaekugbe B., Katelevskaya N.M.

RISK FACTORS OF TEEN SUICIDE AS PSYCHO-HYGIENIC PROBLEM

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Actuality. Promoting mental health and well-being, and the prevention and treatment of substance abuse, are integral parts of the Sustainable Development Agenda to transform our world by 2030 adopted by the United Nations General Assembly on 25 September 2015. This is recognition of the importance of these areas of health within global development and health priorities. Especially important a question of is the preservation of mental health in the case of the discussion of mental health and the causes of teen suicide. Suicide is the second leading cause of death among 15–29-year-olds (WHO).

The aim. Study of risk factors of teen suicide and methods of prevention of mental disorders that contribute to suicide attempts.

Materials and methods. In our work we carried out the analytical study and generalization of modern data published about problem of the teens suicide and methods of prevention of mental disorders, that contribute to suicide attempts.

Results. Experts point out that suicidal behaviors in young people are usually rooted in multiple social, economic, medical, familial, and individual risk factors, with mental health issues playing an important role in the overall mix. as scientists say, suicide is the result of a "perfect storm" of complex, interrelated psychological problems, many of which are not under the teenager direct conscious control. Especial risk group are adolescents with borderline mental health problems such as chronic stress and depression. An aggravating factor is that in the age of 11-15 years old teenagers undergoing major hormonal changes and accelerating growth.

Conclusion. Identification and ccorrection of specific psycho-emotional risk factors of suicide for the mental health of modern teenagers is an important direction of psychohygiene.

Obinyan Ofure Abigael

SCHISTOSOMIASIS EPIDEMIC IN NIGERIA

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Actuality. Schistosomiasis, also known as snail fever, is a disease caused by parasitic flatworms called schistosomes. The disease is spread by contact with fresh water contaminated with the parasites. The disease is especially common among children in developing countries as they are more likely to play in contaminated water. Other high risk groups include farmers, fishermen, and people using unclean water during daily living. It belongs to the group of helminth infections. Schistosomiasis is of epidemiological importance in Nigeria because the two known human forms of schistosomiasis ie S.haematobium and S. mansoni, are currently widespread throughout the country and also because the highest prevalence of infection within Sub-Sahran Africa is seen in Nigeria.

Aim. The aim of this abstract is to identify the complication rate of Schistosomiasis and the effect of such complications.

Materials and methods. Data of World Health Organization and World Bank were used and analyzed.

Result. The estimated prevalence of infection seen in Nigeria is 29 million people infected, out of which S.mansoni is the chief cause of clinical abnormalities with presentations of 3.7% hepatomegaly, 7.4% splenomegaly, 12.3% periportal fibrosis and 6.3% schistosomal appendicitis. Appendicitis is the most common childhood pathology that requires surgery. In a case such as schistosomal appendicitis which could be adequately prevented, having such a high percentage of children infection is of epidemiological significance to the society. Having a large at risk group of children between the ages of 5-10, inhibits the children from going to school while they are infected and without an education, most of the children are unable to break the endless cycle of economic hardship.

Conclusion. Prevention and adequate treatment of Schistosomiasis is the only way of inhibiting the complications that can occur due to the infection. While the government and Non-Governmental Organization (NGO) partners have already taken several steps to address the burden of disease, comprehensive epidemiological mapping had not been available until recently. Moving forward, the Federal Ministry of Health has recommended that all levels of government (Federal, State and Local Governmental areas), Neglected

Tropical Diseases (NTD) partners and other stakeholders, to scale up uninterrupted provision and administration of appropriate medicines alongside other environmental improvement interventions such as clean water and sanitation provisions. Plans should also be put in place for impact assessment after the third year of consistent mass administration of treatment.

Otaigbe P.A., Goodlite S.N.

PSYCHOHYGIENIC ASPECTS OF TEST ANXIETY AT MEDICAL STUDENTS

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Actuality. Test anxiety is typical for the student populations of the world. It is a physiological condition in which people experience extreme stress, anxiety, and discomfort during and before taking a test. In psychohygiene we understand it as a combination of physiological over-arousal, tension and somatic symptoms, along with worry, dread, fear of failure, and catastrophizing, that occur before or during test situations. This anxiety creates significant barriers to learning and performance. Research suggests that high levels of emotional distress have a direct correlation to reduced academic performance and higher overall student drop-out rates. Test anxiety can have broader consequences, negatively affecting a student's social, emotional and behavioral development, as well as their feelings about themselves and school. Some anxiety is normal and often helpful to stay mentally and physically alert. When one experiences too much anxiety, however, it can result in emotional or physical distress, difficulty concentrating, and emotional worry. Inferior performance arises not because of intellectual problems or poor academic preparation, but because testing situations create a sense of threat for those experiencing test anxieties.

The aim of our research is to determine evidence of test anxiety in English medium students who study in KhNMU.

Material and methods. It was used Learning Questionnaire (MSLQ), we analyzed 97 personality research forms of 3d year students of Medical Faculty of (58 % male and 42 % female) with an age of 19-23 years. The majority of the participants were from India (48 %) and Africa (30 %); the remaining participants came from Israel,

Palestine, Lebanon and other countries.

Results. According to results of our studies, most of 3d year students respondents (64.2 %) showed average level of test anxiety. Highest level of this characteristic was inherent for Arabian girls (4.26). In another national and sex groups results were similar (from 3.5 at Indian boys up to 3.99 at African girls). Comparative analysis showed that girls in all groups worry more about results of their academic performance (4.03 to 3.67 at boys). African students-boys were more quite (36 % have low level of anxiety).

Conclusions. Increasing anxiety resulting from the sense of threat then disrupts attention and memory function. Founded features of test anxiety evidence allowed proposing some directions of self-regulation for students with high level of uneasiness. This program includes special physical exercises, well-balanced meal excluding caffeine, alcohol and food with high sugar content, and psychohygienic techniques for relaxation before test and reinforcement memory during it.

Vladislava Sarkis-Ivanova, Andrey Sokoltsov, Yegor Buzevich

ANTIBIOTIC RESISTANCE OF PSEUDOMONAS AERUGINOSA STRAINS AS A CRITERION OF ASSESSMENT PUBLIC HEALTH REGIMEN OF MEDICAL PREVENTIVE INSTITUTIONS

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Relevance: The development of anesthesiology and intensive care units as well as the increasing the capabilities of surgical treatment and the introduction of new invasive methods of diagnosis and treatment in health care institutions increases the incidence of nosocomial infections. This phenomenon is spread in various hospital environments, and leads to many serious consequences (e.g. complications, lengthening hospital stay, increase in expenses), and causes higher mortality than community-acquired infection. In the majority of cases, the reason is Gram-negative bacteria among other things Pseudomonas aeruginosa (P. aeruginosa). One of the characteristics of nosocomial infections that is highly

resistant to the majority of hospitals antibiotics.

Aim: The major aim of this study was to determining sensitivity of P. aeruginosa strains to different groups of antibiotics. The twenty strains were isolated from environmental objects of surgical departments and intensive care units.

Materials and methods: In this cross-sectional study, P. aeruginosa isolates were collected from different clinical specimens. Antimicrobial susceptibility was done against P. aeruginosa strains by disk diffusion test. The results analyzed by software application WHONET 5.1.

Results: Profiles of resistance in major cases were varied, that probably indicate to accidental contamination of environmental objects. Although, data varied between strains, four strains had the highest drug resistance to cephalosporins- aminoglycosides-fluoroquinolones (profile of antibiotic resistance– CFTPMGAN). Selected strains might be the main cause of nosocomial infections in city's hospitals.

Conclusion: Considering the wide prevalence and clinical importance of P. aeruginosa isolates using of appropriate infection control measures as microbiological environmental monitoring is necessary to prevent further spread of infections by these resistant organisms. These data may serve to M. D. for scheming antibiotic treatment in different hospitals. Consequently, it is necessary to strict monitor the antibiotic resistance of circulating strains and committed to methods of balanced antibiotic therapy in the medical preventive institutions.

Singh Shivam, Vasava Prashant

PSYCHOLOGY AS A MEDICAL INSTRUMENT IN STRUGGLING WITH DEPRESSION

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Actuality. The topicality of the problem is caused by different factors presented in different fields of life. Today's world is characterized by the presence of race education. It means that students may appear under a strong pressure of marks and ratings. That can lead a person to depression. And psychology is important for such people to help them in struggling with depression and decreasing harm of their mentality. Thus, psychology becomes a medical instrument. Psychological science is also important in medicine when we need to promote health, improve health care or prevent illness.

The aim. So, our goal is to study psychology as a medical instrument in struggling with depression.

Results. According to scientists, in medicinal field psychological profession is becoming primary care setting. Like some are more and more getting used to smoking, drugs and alcohol, eating disorder and disability, depression is also the main psychological problem. Depression is considered as a state of low mood and aversion to activity that can affect a person's thoughts, behavior, feelings and sense of well-being. It is a serious condition that affects your physical and mental health.

In clinical psychology the psychological science integrate with the treatment of complex human problems. These problems are mainly related to their past. It is proved that psychological problems occur mainly when a person is faced hilarious tragedy in the past which can't be healed out yet now. So such people have to be given a special type of treatment (not only medical, but also psychological ones) so that they get out of depression. According to different researches the best kinds of such psychological treatments are sharing feelings, making good friendship, spending lot of time with the person and make him / her happy.

That is why psychological science unveils new and very important way for people to exist and thrive in this today's new world.

C**onclusion**. So, in our opinion, psychology is necessary in all professions. It plays very important role in our life, especially in such its fields like education (where it can improve our brain mentally and also

retain knowledge), health, psychological knowledge, etc where it helps people not just to adopt in different conditions but also to struggle with diseases (e. g. depression) caused by these conditions. Thus, psychology is a powerful medical instrument that must be used not only by doctors but also by every person who thinks of other's health.

Tinuola Olajide, Andikan Udoh Effiong, Olga S. Sasina

PSYCHO-HYGIENIC HEALTH RISK FACTORS OF CHILDREN AND TEENAGERS WITH VISION PATHOLOGY

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Actuality. An estimated 19 million children are visually impaired. Of these, 12 million children are visually impaired due to refractive errors, a condition that could be easily diagnosed and corrected. 1.4 million are irreversibly blind for the rest of their lives and need visual rehabilitation interventions for a full psychological and personal development (WHO). Children should all be able to achieve their optimal physical growth and psycho-emotional development, even if they have certain features of development, such as diseases of the view that lead to blindness or deterioration in vision function.

The aim. Study of psycho-hygienic health risk factors of children and teenagers with vision pathology.

Materials and methods. In our work we carried out the analysis and generalization of data published on the problem of the proper mental and physical development of children and teenagers with vision pathology.

Results. The study environment for visually impaired adolescents shows to perfectly ensure correct and complete acquisition of knowledge is necessary to provide a good psycho-emotional climate. Schools are adapted to physical assist children and teenagers with visual pathologies. Safety considerations are a priority. Class rooms are organized so that the students can know just where to go for what they require. The learning environment has a sufficient set of tools for acquiring knowledge, such as: Braille code, tactile graphic and tactual books. They are designed to ensure that the students effectively acquire knowledge without limitations. But, unfortently, level of psycho-emotional help is low.

Conclusion. Identification of specific psycho-emotional risk factors for the health of children with

pathology of vision is an important direction of hygiene.

SURGERY

Ahmed R.B.

DIFFERENT MANAGEMENT APPROACHESFOR PATIENTS WITH PANCREATIC TRAUMA

Research advisor: Teslenko S.N., Professor
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Actuality. Pancreatic trauma occurs in approximately 4% of all patients sustaining abdominal injuries. Most patients with pancreatic trauma have concomitant injuries. The pancreas has an intimate relationship with major abdominal vessels, and there is significant morbidity and mortality rate associated with severe pancreatic injury.Pancreatic injury occurs infrequently after blunt or penetrating abdominal trauma and so many conservative and surgical approaches have been introduced for its management.

The aim. To assess the efficacy of different tactics in management of patients with pancreatic trauma depending on the grade and its location.

Materials and methods. The study included 40 patients with pancreatic trauma. According to the severity of the trauma the patients were divided into five grades using American Association for the Surgery of Trauma (AAST). 15 patients in grade 1 with minor contusions without duct injury, 10 patients in grade 2 with major contusion without any duct injury or tissue loss, 7 patients in grade 3 with laceration and pancreatic duct injury, 5 patients in grade 4 with proximal transection of the pancreas and also involvement of the ampulla, and 3 patients in grade 5 with massive disruption of the pancreatic head. Each group of patients had different clinical manifestations from mild to severe. Patients in grades 1&2 were relatively satisfactory with nonspecific symptoms, while patients in grades 3-5 had symptoms like flank ecchymosis, jaundice, back pain.

Results. Based on the degree of manifestations, all 40 patients were treated differently. Patients in grade 1 and grade 2 were treated with non-surgical methods because of absence of involvement of the pancreatic duct. Debridement and drainage was carried out for these patients. Closed suction drains wereused for the above patients, other non-operative management introduced were; bowel rest and total parenteral nutrition. These management strategies proved effective. Patients who were classified into grade 3, grade 4 and grade 5 required a different management strategy due to the involvement of pancreatic duct, laceration of the ampulla and massive disruption of the pancreatic head. In these patient the therapeutic

approach given was drainage and surgery. Patients in grade 3 were treated with distal pancreatectomy performed, while patients in grade 4 and 5 underwent drainage and Whipple procedure.

Conclusions. From our study, after different management, patients from grades 1 and 2 had absolute recovery with no complications. About 80% of patients from grades 3, 4, 5 recovered within 4-5 days, 10% of the patients had pancreatic fistula and the other 10% had pancreatic pseudocysts as complications.

D.Yu Artemchuck, scientific director Ph.D. V.Yu. Shapovalov

LAPAROSCOPY IN DIAGNOSIS OF ACUTE APPENDICITIS

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Actuality. Onset of using laparoscopy made better quality of the diagnosis and results of acute appendicitis treatment. According to the data of World Health Organization about 30 % of the inpatient department patients have combined pathology of the abdomen cavity organs. Frequency of the detection of simplex (superficial) appendicitis during traditional appendectomy – 40%.

Aim of this study was to evaluate laparoscopy in diagnosis of acute appendicitis.

Materials and methods. In our clinical investigation 251 patients with suspected acute appendicitis were operated by using of videolaparoscopy techniques. In case of determined acute appendicitis laparoscopic appendectomy was carried out.

Results. We managed to inspect appendix in 99.6% cases during laparoscopy. In one case we couldn't detect it because of expressed peritoneal commissures after the previous operations. In 42(16.7%) diagonsis of acute appendicitis were excluded during the diagnostic stage of laparoscopy because of determine another diseases of abdomen cavity or appendiceal mass. Operation ended by diagnostic laparoscopy in 8 cases of them, in 34 cases diagnostic laparoscopy came into therapeutic for another abdomen pathology. Only one patient underwent removing of the non-inflamed appendix during laparoscopy, it compound 0,4%. During the traditional open surgery quantity of the removing of non-inflamed appendices was 6,5%, what confirm that laparoscopy is more effective. Frequency of the detection of simplex appendicitis who was operated laparoscopically less than such patients with open surgery reciprocally 10,5% and 36,4 %.

Conclusions. Videolaparoscopy allows to determine the diagnosis of acute appendicitis, diagnosis of another diseases of abdomen cavity and to avoid ineffectiv appendectomy in 6,5%.

Basylaishvili S.

MORPHOLOGICAL EVALUATION OF NEOADJUVANT CHEMOTHERAPY IN PATIENTS WITH LUNG CANCER

Research advisor: Starikov V.I., Doctor of medicine
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Actuality. At stage 3A lung cancer (LC), two cycles of neoadjuvant chemotherapy (NCT) are recommended by the standard of care. However, often there is no objective effect. At the same time introduction of NCT postpones terms of radical surgery performance and deteriorates the patients' condition.

The aim. To study therapeutic pathomorphosis in tumors of patients with lung cancer who received NCT followed by surgery.

Materials and methods. For morphological studies we used histological specimens from 27 patients aged from 46 to 68 years old males, in whom the first stage of treatment was chemotherapy. Before surgery they received 2 cycles of NCT (cisplatin 70 mg/m2 body surface area on the first day, etoposide 120 mg/m2 on 1-3 days i.v.) with 3 week intervals.

Results. After chemotherapy in tumors develop irregular atrophic and degenerative processes, represented by foci of regression, necrosis and their organization with a significant suppression of the mitotic activity of up to 4,5‰ and 100% of pathological mitosis. However, along with the destructive changes there are extensive solid fields with practically unaltered or little modified tumor structure and high mitotic activity 17‰ and up to 41.14% of abnormal mitosis. In general, after NCT only 34% of patients had moderate therapeutic damage of tumor. In the tumor appear uneven decrease in parenchyma volume and clearly visualized laminating tumor monolith, islets of connective tissue, of already tumor stroma.

Conclusions. Therapeutic pathomorphosis of lung cancer after chemotherapy is characterized by a low degree of damage at the cellular and tissue levels with increasement in the number of pathological mitosis in a stable mitotic index, activation of local stromal immune responses and apoptosis. This explains the lack of clinical benefit from NCT in the majority of patients with lung cancer,

and casts doubt on the feasibility of its implementation.

Bilchenko Sofiia

CORNEAL CHANGES AFTER THE NON PENETRAITING DEEP SCLERECTOMY AMONG PATIENTS WITH GLAUCOMA AND DIABETIC POLYNEUROPATHY

Kharkiv National Medical University Ophthalmological department
Scientific supervisor: Zavoloka Olesya

The risk of resistant glaucoma development is increased in patients with diabetes mellitus that often leads to the surgery. It is known that vegetative nervous fibers influence on the corneal neurotrophical state. Diabetic patients suffer from an early affect of sensitive and vegetative nervous, that can cause a change in epithelization of incision after a non penetraiting deep sclerectomy in patients with glaucoma.

The aim was to study the corneal neurotrophical state after the non penetraiting deep sclerectomy among patients with glaucoma and diabetic polyneuropathy.

Methods. 30 patients with glaucoma and diabetic polyneuropathy and 30 patients with glaucoma without diabetes mellitus were made the non penetraiting deep sclerectomy. Research methods were Corneal Confocal Microscopy, esthesiometry, pupil cycle time, Schirmer's, Jones' and Norn's test. They were under supervision during 1 month.

Results. In patients with glaucoma and diabetic polyneuropathy the sensitivity of the cornea was decreased 7 days after surgery, was not statistically changed 14 days and was increased 1 month after the nonpenetraiting deep sclerectomy in comparison with the data before surgery (p=0.02 and p=0.04). In patients with glaucoma the sensitivity of the cornea was not statistically changed 7 days and increased 14 days and 1 month after the surgery (p=0.02 and p=0.01). patients with glaucoma and diabetic polyneuropathy 7 days after surgery, were not statistically changed 14 days and increased 1 month after the nonpenetraiting deep sclerectomy in comparison with the data before surgery (p=0.03 and p=0.04) not statistically changed patients with glaucoma 7 days and 14 days after surgery, and increased 1 month after the nonpenetraiting deep sclerectomy in comparison with the data before surgery (p=0.04 and p=0.02).

Conclusions. In patients with glaucoma and diabetic polyneuropathy the neurotrophical corneal changes are noted after the nonpenetraiting deep sclerectomy. The sensitivity of the cornea, common tear production and tear

film break-up time are decreased 7 days after surgery.

Bohdanets O., Ivachnova K., Novikova K.

THE CONTENT OF FAS LIGAND IN PRIMARY OPEN ANGLE GLAUCOMA

Research advisor: Panchenko M. V., Professor
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Actuality. Glaucoma is a group of eye diseases characterized by an increase in intraocular pressure resistant to the subsequent development of the visual field defects, decreased visual acuity and optic atrophy. Glaucoma may result from apoptosis. Fas ligand - cytokines, which triggers a cascade of biochemical reactions, which is the final stage of defragmentation of chromosomes and cell death.

The aim. To study the literature on the content of FAS ligand in primary open angle glaucoma.

Materials and methods. The review of works of scientists engaging in determination of Fas ligand in the aqueous humorof front chamber of eye at POAG from 2007 to 2013 was conducted.

Results. The results obtained that the level of Fas ligand in patients withPOAG, pseudoexfoliative glaucoma and cataract groups were not significantly different (Razeghinejad MR, et al .; 2007). For the data of other authors Fas ligand in the aqueous humor of the anterior chamber in patients with open-angle glaucoma is below the detection level (Borkenstein et al.; 2013).For the results of other scientists research findings suggest that patients with suspected glaucoma, increased secretion of sFas /Apo-1 in the tear fluid, with a lower concentration of such blood serum, at relatively moderate levels sFasL in tears, and the absence of it in the serum . The progression of the disease, for their information, associated with the weakening of both sFas / Apo-1 and sFasL, reflecting the propensity to "deplete" Fas - mediated apoptosis level and possible transition to the next phase of the apoptotic process with the other markers (Slepova OS, et al .; 2012).Results are available for researchers who also confirmed on the influence of Fas markers - mediated apoptosis in the development of the disease , they say that signs risk of POAG is the spot " hypersecretion » sFas / Apo- 1 (as compared to the system) and the apparent prevalence it over sFasL in the tear fluid , also an unfavorable sign of the disease is considered strengthening local and system sFasL secretion and smoothing the gap

between the content of sFas / Apo- 1 in serum and tear (Frolov, MA, et al , 2012).

Conclusions. The study showed the absence of scientific consensus on the role of FAS ligand in primary open angle glaucoma that demonstrates the need for further research.

Borachok T., Kopanska D.

IMPACT OF PREOPERATIVE FASTING TIMES ON BLOOD GLUCOSE, KETONE BODIES AND ACID-BASE BALANCE IN CHILDREN YOUNGER THAN 36 MONTH

Research Advisor: Assistant Svitlyk Y.
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Actuality. Preoperative fasting is important to reduce the risk of regurgitation and pulmonary aspiration of gastric contents in children undergoing anaesthesia. For children, the preoperative fasting guidelines published by the Amer-ican Society of Anesthesiologists (ASA) and European Society of Anaesthesiology (ESA) allow clear fluids up to 2 h, breast milk up to 4 h and other milk and solids up to 6 h before induction of deep sedation or general anaes-thesia.1,2 However, actual fasting times in children are often longer than recommended and many children suf-fer from a considerable amount of preoperative discom-fort because of excessive fasting times.

Materials and methods. 100 children aged 0–36 months scheduled for elective paediatric surgery were included in this prospective, noninterventional, observational study, all of them in a stable haemodynamic condition. Children who received intravenous fluids during the fasting period, were admitted to critical care, experienced nausea and vomiting, or had a metabolic disorder were excluded. The study was conducted from June 2015 to November 2015 in the Pediatric Clinic “OHMATDYT”, Lviv, Ukraine. As a routine, the ward staff were given written individual instructions for fasting times before the estimated time of induction of anaesthesia according to the institutional guideline: 6 h for solid foods, 4 h for breast milk or infant formula, and 2 h for clear fluids (apple juice or sugared tea). After induction of anaesthesia, a venous blood sample was collected routinely from all children. Ketone bodies less than 0.6 mmol/l were accepted as normal and hypoglycaemia was

defined as glucose concentration less than 2.8 mmol/l.

All recorded data were analysed using MS Excel and Medcalc Statistical Software and presented as mean values standard deviation (SD) (range) or frequency. Wilcoxon test, Mann–Whitney test and linear regression analysis were performed for metric data with a predefined sig-nificance level of a equal to 0.05.

Results. Mean fasting period was 7.8 - 4.5 (3.5 to 20) h, and deviation from guideline (DGL) was 3.3-3.2 (-2 to 14) h. Linear regression showed a significant correlation between fasting times and ketone bodies, anion gap, base excess, osmolality as well as bicarbonate (for each, $P < 0.05$), but not glucose or lactate. In children with DGL more than 2 h (54%), ketone bodies, osmolality and anion gap were significantly higher and base excess significantly lower than children with DGL less than 2 h (for each, $P < 0.05$).

Conclusion: After prolonged preoperative fasting, chil-dren younger than 36 months can present with ketoacidosis and (low) normal blood glucose concentrations. Actual fast-ing times should be optimised according to existing guide-lines. In small infants, deviations from fasting guidelines should be as short as possible and not longer than 2 h.

Boyarskiy A.A.

THE ASSESSMENT OF THE EFFICIENCY OF USING THE TRAM-FLAP ON THE NUTRIENT PEDICLE AS THE BREAST RECONSTRUCTION METHOD

Research Advisor: Beliy A.N., PhD, Associate Professor
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Actuality. Breast cancer (BC) occupies a leading place in the structure of women's oncological morbidity. The success of BC treatment depends on many factors, among which the main role belongs to the time of treatment's beginning, the histological features of the tumor and the extent of its distribution. The main part of the BC treatment is the surgical one. It is used a radical mastectomy in the vast majority of cases. This operation provides a radical removal of the tumor, but it brings physical and mental suffers to the patient. And due to the fact that BC occurs in women of reproductive age in 20% of cases, one of the important issues in the treatment of this disorder is to restore the breast. The most common method is to wear a special underwear. But this method has several disadvantages, especially among young patients: inability to wear a deep neckline and swimwear, a sense of inferiority in the absence

of this bra, so women are offered the breast reconstruction. There are the following reconstructive operations: dermotension with subsequent arthroplasty, thoracodorsal flap + implants, TRAM-flap on the leg of the rectus abdominis, TRAM-flap on the free microvascular anastomoses, plastic free vascular grafts on microvascular anastomoses.

The aim. The aim of this work is the assessment of the efficiency of TRAM-flap on the nutrient pedicle transplantation, as one of the most physiological methods.

Material and methods. We performed the TRAM-flap on the nutrient pedicle transplantation 12 patients aged under 55 years with stage 1-2 BC. We made them directly after radical mastectomy.

Results. 40% of patients were smokers, however, we have not received the expected high percent of flap marginal necrosis in this group according to the information of literature. This complication was noted only in 2 patients. Seroma was detected in 1 patient. Regular puncture under ultrasound helped to cure it without suppuration. Postoperative hernias were noted. Patients used a three-dimensional tattoo to restore the appearance of the nipple-areola complex. Periods of observation all the patients after the operation is 1-2 years. They received adjuvant treatment according to the protocol after the operation. Prolongation of the disease in this group of patients is not yet marked.

Conclusion. Thus, using of TRAM-flap for the breast reconstruction after radical mastectomy is a perspective and safe method, but we should remember that every patient needs a comprehensive and individual approach.

Davydych Alina

PATHOGENETIC ASPECTS OF DRY EYE SYNDROME IN SJOGREN'S DISEASE

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Introduction: The increasing amount of patients with the syndrom of dry eye is admited during last years .27-29% are patients with Sjögren's syndrome (by statistics). In the literature, there is a few information about this syndrome, that is why it is the specification of the basic pathogenetic links of the process with this systemic disease is topical.

The aim: To improve the differential diagnostics of dry eye syndrome in Sjogren's disease by studying development mechanisms of this disease.

Materials and methods: Analysis of reviewed literature of the last 5years. A retrospective analysis of medical records of Kharkiv Regional Clinical Hospital, Center of Emergency Medical Care and Disaster Medicine. We have studied 73 case histories of patients with Sjögren's syndrome.

Results: As a result of research such information was obtained: Sjögren's syndrome arises up at:
• 15-25% patients with reumatoid arthritis;
• 5-10% patients with collagenoses; Sialoschesis occurs due to autoantibody production to M3 muscarinic receptors, which are involved in the transmission of nerve impulses required for the synthesis of aqueous saliva component and tears, as well as increased content of proinflammatory cytokines - IL-1, which leads to a compensatory production of IL-1RA and it causes inflammation and oral mucosal dryness and its activation triggers the proliferation of B-lymphocytes, which induces apoptosis in epithelial cells and affects the salivary glands, causing dry mouth.
• 50-60% postclimacteric women (in the women's body decreases estrogen levels, which leads to lower production of mucins and dryness of mucous membranes, namely the mucin layer of the lachrymal film;

• 50-100% patients with autoimmune liver disease (Anti-Ro/SSA and anti-La/SSB, antibodies directed against Ro/La ribonucleoprotein complexes, can serve as a diagnostic hallmark of Sjogren's syndrome. Comes out as the lesion of lacrimal glands and, consequently , it violates their secretory function . Reduced production of tears and mucins. As a result of impaired stability precorneal lachrymal film , its strength is reduced, evaporation is increased, which leads to the development of xerosis.);
• 50-70% heredity (in families with different autoimmune and connective tissue diseases);

Conclusion: Updated information about the development of dry eye syndrome in patients with Sjögren's syndrome. So , there is a decrease production of the mucin layer of the lachrymal film and aqueous component as a result of systemic connective tissue diseases , autoimmune diseases , hereditary and post-menopausal.

Duras Anastasia, Baraniuk Mariia

ULTRASOUND BIOMICROSCOPIC FEATURES OF PIGMENTARY GLAUCOMA

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Scientific supervisor: Duras Inna

Introduction In pigment dispersion syndrome, friction between the posterior iris surface and the anterior zonular bundles causes the disintegration of iris pigment epithelial cells and the release of pigment granules, which are then dispersed by aqueous currents. The liberated pigment is deposited throughout the anterior segment. The classic diagnostic triad consists of a Krukenberg spindle, slitlike radial midperipheral iris transillumination defects, and increased pigmentation of the trabecular meshwork. The angle is typically wide open, the iris is inserted posteriorly, and the configuration of the peripheral iris is posteriorly concave. Elevated intraocular pressure develops in many patients and may lead to glaucomatous damage (pigmentary glaucoma).

Purpose To examine patients with pigmentary glaucoma or pigmentary dispersion syndrome using ultrasound biomicroscopy. Interventional case series.

Methods Ultrasound biomicroscopy was performed on both eyes of 23 patients with asymmetric pigment dispersion syndrome without a known cause for asymmetric involvement. A radial perpendicular image in the horizontal temporal meridian detailing the scleral spur, angle anatomy, and iris configuration was obtained for each eye.

Results There were no differences in lens thickness, refractive error, or axial length between more and less affected eyes. However, iris concavity, iris-lens contact distance, and distance from the scleral spur to the iris insertion were greater in the more affected eye of each patient.

Conclusion A more posterior iris insertion predisposes to the phenotypic expression of pigment dispersion syndrome.

Duras Anastasia, Aksjonova Nadiia

CHANGES IN THE ANTERIOR CHAMDER AFTER PHACOEMULSIFICATION CATARACT

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Scientific supervisor: Duras Inna

PURPOSE: To report quantitative changes in the anterior chamber configuration after small-incision cataract surgery with implantation of a posterior chamber intraocular lens by means of ultrasound biomicroscopy.

METHODS: We examined the anterior chamber configuration of 12 eyes of 12 patients before and 3 months after phacoemulsification cataract surgery plus intraocular lens implantation by ultrasound biomicroscopy. The following variables were measured: the anterior chamber depth at the center of the cornea, the angle-opening distance 250 μm from the scleral spur (AOD250), the angle-opening distance 500 μm from the scleral spur (AOD500), and the trabecular-iris angle.

RESULTS: The anterior chamber depth at the center of the cornea, AOD250, AOD500, and trabecular-iris angle increased significantly after surgery. The preoperative anterior chamber depth at the center of the cornea and trabecular-iris angle were negatively correlated with the differences between the postoperative and preoperative values. The preoperative values of all variables examined were negatively correlated with the ratios of the postoperative value to the preoperative value.

CONCLUSIONS: The present results showed that small-incision cataract surgery significantly deepened the anterior chamber and widened its angle. The more shallow the preoperative anterior chamber was, the greater the postoperative change of the chamber was; and the more narrow the preoperative angle was, the greater the postoperative change of the angle was.

Elena Fundovna, Ilyina Yevgeniya

COMPARATIVE CHARACTERISTICS OF THE EFFECTOF LUMINESCENT AND LEDLIGHT ON THE ORGAN OF VISION

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Actuality. Natural daylight is the most physiological illumination for our eyes. However, in the age of technological progress the importance of using artificial light cannot be understated. On this basis it isrelevant to examine the extent of the pathological effects of luminescentand LED light on the eyesight.

The aim. To study and to compare the influence of luminescentand LED illuminationon the accommodativesystem.

Materials and methods. Literature data. The authors have been conducting a study on 63 volunteers who were 20-25 years old with normal vision or with its spectacle correction for 6 months. The volunteers were divided into 2 groups: 31 and 32 people. The first group was exposed to LED lighting, the second – luminescent light for 7-8 hours a day. Visual acuity, the amplitude of accommodation, fatigue factor of the ciliary muscle and the intraocular pressure were measured.Biomicroscopy was performedto inspect the anterior eye segment.The posterior eye segment was visualized with ophthalmoscopy.

Results. Visual acuity before and after the study did not vary significantly, and the average value was equal to 1,0 ± 0,1 and 1,0 ± 0,3, respectively, in groups with luminescent and LED light, p = 0,16. The amplitude of accommodation in the beginning of the study in the LED group was 9,63 ± 0,02 diopters, after 6 months of the study it coincided 9,76 ± 0,04, p = 0,14. In the group of young people who used the luminescent light its value was equal to 9,62 ± 0,34 diopters and 9,86 ± 0,24 respectively in the beginning and after 6 months of the study, p = 0,20.While normal values are 9,47 ± 0,02 diopters and 10,16 ± 0,12. The coefficient of the ciliary muscle fatigue was 7,40 ± 4,37 in the LED group and 8,34 ± 0,36 in theluminescent group equally at all stages of observation, p = 0,06, at a rate of up to 10,7 ± 4,8. Intraocular pressure before the study was 17,3 ± 1,1 mm Hg, after the completion of study - 17,6 ± 1,1 mm Hgin the group of volunteers using LED, p = 0,26 and 17,70 ± 1,1 mm Hgduring the entire period of observation from persons applying luminescent light, p = 0,61 (at a rate of 9-21 mm Hg). By means of biomicroscopy and ophthalmoscopy no pathology was detected.

Conclusion. During the applying of luminescent and LEDlightingfor 6 months the change

in visual acuity and accommodation volume did not occure.

In this case, the absolute value of the accommodation increases, which gives an indication of decreasing its voltage while working with the luminescent lighting.

Dynamics in the rate of exhaustion of the ciliary muscle is absent, which means the beneficial effect of the two types of lighting.

Negative effect on intraocular pressure have not been identified.

Galkina Karetyna, Samoilenko Svetlana, Nikolaenko Alina

THE EFFECTS OF PHYSICAL ACTIVITIES ON THE GLYCEMIA LEVELS OF CHILDREN WITH THE DIABETES MELLITUS

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Aim: To estimate factors that have influence on glycemia changes within children and adolescents with type 1 diabetes mellitus (DM).

Materials and methods: During performance of work in Endocrinology department of GT "HICA NAMS" 25 children and adolescents with type 1 DM were examined. There were 10 boys and 15 girls among them, all of 9-16 years old and 2-8 years of disease duration. The questionnaire used to define initial level of physical activity (PA) was based on the two leading foreign questionnaires (International Physical Activity Questionnaire and Physical Activity Questionnaire for Older Children and Adolescents), changed and adapted to the conditions. PA was evaluating during 7 days considering activities during classes, after classes and on weekend. Patients were divided into 3 groups due to their PA levels: 1 - with low PA level (n=5); 2 - with moderate PA level (n=14); 3 - with high PA level (n=6). Glycemia levels were measured before and after standard moderate physical. Patients were divided into two groups depending on the glycemia level before physical exercises (A - under 15 mmol/l, n=14; B - over 15 mmol/l, n=11). Statistical data processing was carried through using Excel software package.

Results: Our research revealed that most patients' glycemia levels decreased (by 1,7-9,2 mmol/l) in response to standard complex of physical exercises of moderate intensity. Only 3 of 25 patients (12%) had their glycemia levels slightly increased (by 0,9-1,8 mmol/l) with no relation to its initial levels. According to test data high PA level was accompanied by lower

glycemia indexes (10,2±1,3 mmol/l) as compared with the results of groups with low and moderate PA (13,7±1,1 mmol/l and 13,7±0,8 mmol/l, p<0,05). Glycemia levels in boys tend to decrease more than in girls (5,5±1,3 mmol/l compared to 2,8±0,6 mmol/l, p<0,05), initial glycemia levels being the same. The revealed tendency was also shown in cases of moderate glycemia levels - 5,8±1,3 mmol/l in boys and 2,8 mmol/l in girls (p<0,05). Glycemia levels in the group of patients with higher initial levels of glycemia (group B) have shown to decrease more significantly regardless of patients' sex. Similar changes were observed also in groups with moderate and low PA, among which the most decrease of glycemia levels was shown in group A (5,1±0,6 mmol/l).

Conclusions: The dynamics of glycemia levels change in children with type 1 DM exposed to physical exercises depends on sex, initial glycemia level and general physical activity. Thus we can distinguish groups of patients with high hypoglycemia risk, especially boys with initial normoglycemia and high level of physical activity.

Gillies N.P.

MANAGEMENT OF PREMATURE EJACULATION CONCERNED WITH COMPARISONS OF PHARMACEUTICAL AND THERAPEUTIC MANAGEMENT VERSUS SURGICAL INTERVENTION

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Actuality. Although clinical practice shows an apt to employ pharmaceutical and therapeutic modes of management for premature ejaculation especially in Western and Central European countries, a comparison to surgical intervention, more commonly practiced in Ukraine and Russia. Where benefit outweighs risk, adverse effects, sequelae and duration of effectiveness of each mode has been compared.

The aim. The primary objective of this study was to parallel and adverse effects of pharmacological therapy and non-lasting effectiveness of therapeutic (behavioral and technique based) methods of management, compared to surgical intervention – selective neurotomy; of branches dorsal penile nerves.

Materials and Methods. 162 patients with premature ejaculation disorder initially self-managed with

pause-squeeze techniques and managed pharmacologically with SSRI dapoxetin (Priligy) 30mg on-demand 1 hour before sexual intercourse. In case simultaneously ED we added phosphodiesterase-5 inhibitors 50mg of Sildenefil. Of the 162 patients with premature ejaculation disorder, 72 reported severe side effects of pharmacological treatment, an additional 25 reported ineffective pharmacological management, of those, 16 still reported ineffectiveness after dosage adjustment. Those with severe side effects of headache, epistaxis and anxiety with loss of libido or no therapeutic effectiveness, even after dosage adjustment, underwent a selective neurotomy by means of selected dorsal penile nerve ligation and resection.

Results. Of the 25 patients reporting ineffective pharmacological management, 9 reported improvement following dosage adjustment. Total of 88 patients underwent a selective neurotomy. Intravaginal Ejaculation Latency Time was 1.5 - 3.5 min (average IELT was 2 min 37 sec). Follow-up time was 3 months. Average IELT after surgery was 7 min 55 sec.

Conclusions. Surgical intervention (selective neyrotomia) is safe, profitable and highly effective method treatment of PE and may prove to be a last resort for traditional treatment and in case of severe side effects and pharmacological ineffectiveness, instead offering a more permanent solution for premature ejaculation.

Miasoiedov K.V.

APPLICATION OF THE HYDRAULIC DESOBLITERATION IN TREATMENT OF PATIENTS WITH CRITICAL LIMB ISCHEMIA

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The aim. To estimate the significance of hydraulic dissection of the arterial wall in treatment of patients with critical limb ischemia as potential method of artery desobliteration.

Materials and methods: there were 20 parts of the arteries harvested from the amputated lower limbs in patients with critical limb ischemia examinated. Hydraulic dissection was performed on these atherosclerotically changed arteries in order to disobliterate its lumen. To perform such a method we injected isotonic fluid in the

subadvetitial layer to separate obstructing substrate from the residual artery wall in its lumen. After atherosclerotic plague separation the last one was extraxted from the lumen from the longitudinal arteriotomy. In case of incomplete plague separation we added mechanical endarterectomy.

Results: we managed to complete hydraulic enarterectomy on segments of femoral and popliteal arteries over 5±2,1 cm, on the tibtial arterias this index amounted 3±1,7 cm. In 17 cases we managed to separate the plague completely from the wall and extract it from the arterial lumen from a single arteriotomy orifice as a sole conglomeration. At the same time the plague was extracted from the arteriotomy orifice sized 1,5±0,8 cm. In 3 cases we needed to add mechanical endarterectomy to our method.

Conclusions: offered method of hydraulic endarterectomy allows to perform a dissection of arterial wall in that way to separate the obstructive substrate from the wall and to extract it from the lumen or to prepare the arterial wall for further endarterectomy with Vollmar rings.

N.M. Goncharova

MINI-INVASIVE SURGICAL TREATMENT OF COMPLICATED PSEUDOCYST OF PANCREAS SECOND TYPE

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Relevance. Availability variety of surgeries, and widespread adoption of the practice of minimally invasive surgery, creates a dilemma regarding the choice of method of surgical treatment of patients with complicated pseudocyst (PC) of the pancreas.

The aim - to improve the results of surgical treatment of complicated PC software second type classification and D'Egidio A. Schein M. (1991) using a mini-invasive techniques.

Materials and methods. The results of surgery 119 patients with complicated PC software second type, classification and D'Egidio A. Schein M. (1991). All patients examination by conventional methods.

Results and discussion. In the first phase of 119 patients performed mini-invasive technique. Pseudocysts puncture under ultrasound control were made of 55 patients, percutaneous drainage of the PC software by type «pigtail» was made of 17 patients, percutaneous puncture drainage of abdominal

ultrasound – 2, pseudocysts endoscopic ultrasound puncture performed in 16 patients, endoscopic stenting with cystogastrostomy – 4, endoscopic cystoduodenostomy – 1. Laparoscopic drainage external PC made the 3 patients, laparoscopic cystoejunostomy – 5. As of first stage 15 patients with PC software, complicated by bleeding in their cavity, performed X-ray endovascular occlusion vessels, which led to bleeding. In 1 patient with bleeding from major vessels (common hepatic artery) was established stent-graft as an alternative method of X-ray endovascular intervention allowed to keep blood flow through the vessels, and closed the defect in the vascular wall.

Conclusions. Patients with complicated PC software in 81.5% of cases of mini-invasive techniques have been the final step in their treatment. In 18.5% of these techniques were used to "expectant" tactics, to facilitate the general condition of the patient, followed by performance laparotomy intervention.

Ievtushenko D., Ievtushenko A.,Vinogradov B., Belousova M.

ACUTE CHOLANGITIS IN PATIENTS WITH CHOLELITHIASIS

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Actuality. Gallbladder disease is a chronic recurrent hepatobiliary disease, the basis for which is the impaired metabolism of cholesterol, bilirubin and bile acids, which is characterized by the formation of gallstones in the hepatic bile duct, common bile duct, or gallbladder. Cholangitis is an infection of the biliary tract with the potential to cause significant morbidity and mortality. Many patients with acute cholangitis respond to antibiotic therapy; however, patients with severe or toxic cholangitis may not respond and may require surgical treatment.

The aim. The objective of this study was to analyze diagnostic features and surgical outcomes in patients with acute cholangitis caused by choledocholithiasis.

Materials and methods. 184 patients with obstructive jaundice was included. Acute cholangitis diagnosed in 62 (33,7%) patients. All patients underwent surgical treatment. All patients classified according TokyoGuidelines 2013(TG 13). Surgical tactics and dynamics of laboratory data changes analysis providedat patients with obstructive jaundice and cholangitis caused by choledocholithiasis.

Results. TG 13 is simple in use and informative in diagnostic sand severity grading of cholangitis. Acutecholangitis development leads to liver malfunction and changes of peripheral blood, that correlate with haematological indexes, most informative among them- index of intoxication.

Ilyukha Sergey, Mitrofanyk Valeriya, Bogun Marina

ALLOPLASTY OF VENTRAL HERNIAS

Research advisor: Antonova Marina
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Introduction. Nowadays about 3-7% of population have ventral hernias. And hernioplasty takes 25% from all operations in surgical hospitals. More than 50000 hernioplastic surgeries are made in Ukraine every year.

The aim. To investigate positive and negative aspects of alloplasty of ventral hernias and to define indications for that operation.

Materials and methods. There were 79 patients with hernias. We have made standard clinical tests for patients and any abnormality was withdrawal criteria. For all the patients alloplasty of hernia was made.

Results. In 20.9-49.2% of patients there was a risk of specific complications from wounds such as long exudation, seroma (11.4%), hematoma (5.3%), marginal necrosis of skin (1.6%), suppuration (3.5%), fistula between skin and transplant, granulomas et al. Lichtenstein hernioplasty was the most reasonable method of hernioplasty.

Conclusion. The basic group for alloplasty of ventral hernias is patients with high risk of relapse of hernia (elderly people, high intraabdominal pressure, incompetent tissues around hernia orifice). It is important to remember that small and medium sizes of hernia are indications for laparoscopic hernioplasty. This type of operation decreases quantity of complications and the term of post-operative period and other. But there are some disadvantages such as total anesthesia, post-operative hematomas, tense carboperitoneum, expensive operating expendables and equipment. The number of relapses after laparoscopic operation is about 0.6-3%.

Ivakhnova K. Bogdanets O., Novikova K.

CONTENTS OF BRAIN-DERIVED NEUROTROPHIC FACTOR FOR PRIMARY OPEN-ANGLE GLAUCOMA

Kharkiv National Medical University
Department of ophthalmology
Ukraine 2016
Supervisor: prof. Panchenko N.V.

Introduction: Brain-derived neurotrophic factor (BDNF) is a polypeptide growth factors, essential components for the establishment and maintenance of neurons. The normal plasma level of BDNF with increasing age or weight, as the platelet level does not change(Lommatzsch M, et al .; 2005). A decrease in serum BDNF in Alzheimer's disease and hydrocephalus(Mansour-Robaey S, et al .; 1994), multiple sclerosis (Laske C, et al .; 2007), chronic schizophrenia(Azoulay D, et al .; 2008), Huntington's disease (Ikeda Y, et al .; 2008), chronic heroin and cocaine abuse (Ciammola A, et al .; 2007), bipolar disorder (Angelucci F, et al .; 2007), alcohol dependence (Kapczinski F, et al ., 2008), affective disorders (Joe KH, et al .; 2007), eating disorders povedeniyatakie as bulimia and anorexia nervosa (Karege F, et al .; 2002). Individuals who suffered from epilepsy, and long-term treatment with antidepressants, show an increase of serum BDNF (Nakazato M, et al .; 2003).

Objective: To study the literature data on serum BDNF, a tear in primary open angle glaucoma.

Materials and methods: we studied work on serum BDNF, a tear in primary open-angle glaucoma between 1996 and 2015.

Results: According Ghaffariyeh, et al .; 2011, mean serum levels of BDNF 27.16 ± 5.53 ng / ml in the control group and 18.42 ± 4.05 ng / ml in patients with early stage of glaucoma. In patients with glaucoma, which had a lower concentration of BDNF in the serum revealed a significant negative correlation with standard deviations model (Puyan, et al .; 2011). In determining the BDNF in tears of normal subjects of marked reduction of his (p <0,001) (Ghaffariyeh A, et al .; 2009). Pease ME, et al .; 2000 termination of retrograde transport of BDNF and TrkB in the accumulation of the optic nerve head in acute and chronic models of glaucoma assume the role of neurotrophins in the pathogenesis of deprivation of RGC death in glaucoma. The study Schwald M, et al .; 2002, the role of BDNF in the blood platelet and central nervous system,

there was a positive correlation between the serum levels and cortical BDNF (r = 0,81, P <0,01), particularly in young animals. In rats, an increase in IOP slows retrograde transport of BDNF colliculus in the retina (Quigley HA, et al .; 2000). High concentrations of BDNF were found in human and rat serum, and up to 50 times lower levels of BDNF present in citrated human or rat plasma confirms abundant widely distribute this action neurotrophic factor (Radka SF, et al .; 1996).

Conclusion: The findings indicate pathogenetic role of BDNF in primary open angle glaucoma.

Amritpal Singh Khangura

TROPHIC LEG ULCERS

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(Department of Surgery No. 2)

Actuality. It is ulceration of the lower leg caused by peripheral vascular disease involving either arteries & arterioles or veins & venules of the affected limb. According to statistics ulcers complicate the course of chronic venous insufficiency (CVI) in 15-18% of cases and occurs in 1-2% of the working population; with age, their frequency increases to 4-5% in patients older than 65 years, and the radical elimination of the disease can only be achieved in every tenth patient (I.A. Zolotukhin, 2007). In addition, even in the event of the closure of venous ulcers is high frequency of recurrence: after surgery, according to different authors, from 4.8 to 31.6%, as a result of conservative methods - from 15 to 100%. The key to successful management of a chronic ulcer would be to correctly identify the etiology as well as the local and systemic factors that could be contributing to its nonhealing nature.

Aim. The aim of our study is to identify the results of different methods of treating venous ulcers.

Materials and methods. In Kharkiv regional hospital were treated 26 patients with chronic venous insufficiency 6th grade (CEAP). We did 18 (69%) venectomy as method of decrease of venous stasis. 19 (73%) ulcers healed by conservative care, and 7 (27%) patients undergone skin grafts by Tires. All patients were receiving medicamental treatment according to the guidelines. After 1 year of supervision we have got recurrency of venous ulcers in 5 (19%) patents, which were not operated.

Conclusion: The management of patients with trophic ulcers and their consequences is difficult not only because it is a recurrent and recalcitrant problem but also because the pathogenesis of the ulcer may be different in each case. If the patient understands that changing habits and making a few lifestyle changes could help in preventing the progression of disease, the prognosis are good.

Khodak A.S.

THE CASE OF PRIMARY – PLURAL MALIGNANT TUMORS OF FOUR LOCALIZATION

Kharkov National Medical University
Department of oncology, Kharkiv, Ukraine

Actuality. The frequency of primary multiple cancer (PMC) or polyneoplasia in humans ranges from 3.4% to 11%. According to various authors heredity, age, sex, addictions and therapy, carried out at the first tumor (radiation and chemotherapy) are considered to be the most frequent causes of PMC. Most often develop 2 tumors, rarer 3, and 4-7 tumors are very rare. Depending on the time of PMC appearance they can be synchronous (that develop simultaneously) and metachronous that develop in succession with a time interval.

Materials and methods. We conduct surveillance of metachronous PMC having our locations. 47 year old patients ch. consulted with the physician for the first time regarding tumor in the right breast in 2004.

In the study cancer of the right breast T2N1M0 was diagnosed with. Radical mastectomy, according to Peity, a course of distant gamma therapy and chemotherapy were made.

Results. Melanoma in the retina of the right eye was diagnosed in 2011. Enucleation of the right eye was made. A made third tumor - renal - cell carcinoma of the right kidney in the same 2011 was diagnosed right nephrectomy. Cancer of the left breast. T3N1M0 was in 2013 diagnosed. A 3-course neoadjuvant chemotherapy, radical mastectomy of the left breast, and the postoperative course of gammaterapy 3 courses of adjuvant chemotherapy were made. The patient was observed by the local oncologist. In 2016 established The generalization of the process in the form of metastases in the lungs, liver and left adrenal gland was in 2016 established chemotherapy was started carrying out. The longest interval was observed between the 1 st and 2 nd tumor and it lasted for 7

years. The period between the first and the 4 tumor was 9 years.

Conclusions. Study of PMC is current because it allows to identify a group of patients with increased risk of recurrent malignancies.

Khvorostinko Ruslan

THE OPTIMIZATION OF TREATMENT OF THE RETINOPATHY OF PREMATURITY

Research advisor: Ilyina Yevgeniya
Kharkiv National Medical University
Department of Ophthalmology, Kharkiv, Ukraine

Introduction. The retinopathy of prematurity (ROP) is serious disease of the retina due to its unfinished development, which leads to vascular proliferation and retinal detachment. Currently, humanity has the ability to birth prematurely-born babies (gestational weeks 28-40), weighing from 700 grams. However, the full development of the retina occurs to 40 weeks of gestational age. Therefore, actual task for ophthalmologists is to reduce disability due to this disease and to prevent pathological changes of posterior segment of the retina.

The aim. the optimization of treatment of ROP by developing an algorithm of activities, depending on the stage of the disease.

Materials and methods. A retrospective analysis of medical records of the perinatal center and children's ophthalmology department of Kharkiv Regional Clinical Hospital, Center of Emergency Medical Care and Disaster Medicine. We have studied 579 medical histories of infants with gestational age more than 29 weeks and birth weight more than 700 grams for the period 2013 - 2016.

Results. Following results are obtained: treatment for ROP depends on the stage of the condition. Stage 1 and 2 usually require nothing more than observation.
The treatment of stage 3 disease involves laser or cryotherapy to burn the avascular retina. Laser therapy (transpupillary diode laser therapy) is first-line treatment. If this is unavailable, cryotherapy or argon laser treatment may be used. Cryotherapy requires conjunctival incisions. Intravitreal VEGF injections show some promise for zone I but not zone II disease. Steroid, antibiotic and mydriatic eye drops are used afterwards.
For stage 4-5 disease: vitreoretinal surgery is required to re-attach the retina. Lens-sparing vitrectomy for early degrees of retinal detachment results in good outcomes for lens clarity and vision in the majority of

babies with ROP.

Babies with only stage 1-2 ROP need only have the routine national vision screening, unless there is specific concern.

All babies with stage 3 ROP or more in which ROP resolved spontaneously, and babies requiring treatment of ROP, require ophthalmic review at least until 5 years of age.

The risk factors of ROP progression are oxygen therapy (odds ratio [OR] = 3,7), comorbidities: respiratory distress (OR = 2,2), intraventricular haemorrhage (OR = 2,4), sepsis (OR = 2,2), and apnea (OR = 1,5). Meanwhile, phototherapy was significantly protective against ROP development, with an OR of 0.6.

Conclusions. Thus, according to the above data it's necessary to select a treatment regimen, depending on the stage of the disease. It is possible to prevent undesirable consequences and complications during the early stages of the disease because of timely diagnosis and the use of new methods of treatment (like laser or cryotherapy; VEGF injections).

Kruglyak V.

TREATMENT OPTIMIZATION OF DELAY EJACULATION

Research advisor: Knigavko A., MD, PhD, Professor
Kharkiv National Medical University
Department of Urology, Nephrology and Andrology, Kharkiv, Ukraine

Actuality. Every man during his life faces with sexual problems. Ejaculatory problems are the most susceptible and delicate ones. A lot of scientific works are dedicated to premature ejaculation, at the same time delay ejaculation is not completely explored.

The aim. Is to determine the optimal treatment method depending on MIEF, HDRS with psychopathology and sexual intercourse satisfaction based on different treatment regimens in delay ejaculation patients (DE).

Materials and methods. In the HCPI “KhRCCUN named by V.I.Shapoval” 82 DE patients with all equal indexes were examined and treated. 40 patients’ DE (group 1) is caused by organic reasons (diabetic neuropathy, prostate infections, alcoholism, transurethral resection of the prostate) and 42 patients’ DE (group 2) by nonorganic reasons (psychogenic disorders, depression, experienced stress, "male" complexes). Patients were gathered: sexual history, intravaginal latency time (IVLT) duration, questionnaire as MIEF and Hamilton scale for assessing depression (HDRS), ultrasound of the genitourinary system.

Results. In group of organic reasons of DE mainly all MIEF points were worse (17,6±3,1 points). In subgroup 1a patients were taking Keltican with vit.B6. In the subgroup 1b to the medications above tropho-stimulating therapy of neuro-reflex centers of the spinal cord was prescribed. Group 2a was taking Buspirone. Group number 2b – Sertraline. In group 1a taking in of Keltican with vit.B6 has improved MIEF up to 20,5 ± 1,7, however tropho-stimulating methods adding to this treatment has shown us bigger effect to 22,1 ± 2,0. In group of Buspirone (14,4±2,3) results are higher than in sertraline group (12,8±1,5) from the beginning 9,3±1,8 for both. According to the results of the sexual intercourse satisfaction all groups have improvements due to treatment – the best results are in groups 1b (22,1 ± 2,0) and 2a (14,4±2,3). The analysis of patient groups shows a decline of neurotic manifestations in nonorganic DE patients due to taking in agonist5-HT1A (Buspirone) and I33C (Sertraline).

Conclusions. The biggest effect that is reflected in improving indicators of MIEF index, sexual intercourse satisfaction and general satisfaction is in group 1b (22,1 ± 2,0 starting from 17,6±3,1 points) thanks to combined treatment: keltican, vit.B6 and physiotherapy. In the second group buspirone (14,4±2,3 from 9,3±1,8) is more effective than sertraline (12,8±1,5 from 9,3±1,8) in treating nonorganic DE. Finally to sum up, the therapy provides improvement of the results in men with delay ejaculation.

Kruglyak V.

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Kharkiv National Medical University
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Nahorna D., Yakovenko V.

ENDOSCOPY DISSECTION OF SMALL STROMAL TUMORS OF THE UPPER GASTROINTESTINAL TRACT

Research advisor: Kuryk O., MD PH
Bogomolets National Medical University
Miniinvasive surgery (pathomorphological), Kiev, Ukraine

Actuality. Gastrointestinal stromal tumors (GIST) are rare neoplasms arising from connective tissue elements of the gastrointestinal wall. They show a great heterogeneity with respect to their histogenetic, morphologic and prognostic characteristics.

The aim. To analyze the cases of endoscopy dissection of small stromal tumors of the upper gastrointestinal tract.

Matherials and methods. A total of 10 patients with esophageal and gastric submucosal tumors emerged from the muscular layer identified by endoscopic ultrasonography were collected from 2010 to 2015. Extramural or dumbbell-like lesions were excluded by an enhanced computerized tomography scan. All patients had intravenous anesthesia with propofol and then underwent the ESD procedure to resect these submucosal tumors.. All the specimens were evaluated by immunohistochemical staining, with antibodies against CD117, CD34, desmin, α-smooth muscle actin and vimentin to identify the characteristics of the tumors.

Results. The study group consisted of 4 men and 6 women aged 34-65 years. Two tumors were located in the esophagus, 3 in the gastric corpus, 2 in the gastric fundus, 3 lesions in the gastric antrum. All tumors were rermoved by endoscopic submucosal dissection (ESD). The average maximum diameter of tumor was 10.6 ± 4.8 mm, with a range of 6 to 20 mm, and another lesion was ligated by an endoscopic ligator after most of the lesion was dissected. After pathological and immunohistochemical analysis, 8 tumors were identified as a gastrointestinal stromal tumor and 2 were leiomyoma. Perforation occurred in 1 patient and conservative treatment succeeded by a suturing clip and no post-operative bleeding occurred.

Conclusions. ESD is a safe and feasible technique to resect esophageal and gastric submucosal tumors and the incidence of complications was very low.

Olaniyan M.M., Kasiev S.

IMPROVEMENT OF THE SEXUAL FUNCTION OF PATIENTS WITH VENO-OCCLUSIVE ERECTILE DYSFUNCTION AND BILATERAL VARICOCELE

Research Advisor: Knigavko A., PhD
Kharkiv National Medical University
Department of Urology, Nephrology and Andrology,
Kharkiv, Ukraine

Actuality. ED is more likely to occur in men, young or middle age. The link between varicocele and erectile dysfunction is proved in a study by Keller JJ, Chen YK, Lin HC.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(KRCCUN), Shapoval, significant reduction of testosterone was not revealed. Australian School of Advanced Medicine, Sydney, Australia and Department of Urology, National Taiwan University Hospital, Taipei, Taiwan concluded that 'venous' aetiology should be an important factor in young males who suffer from erectile dysfunction (who practice the Jelqing maneuver) in their thesis.

For ED caused by abnormal venous discharge, significant outflow of venous blood in pathological shunt takes place (via the great saphenous vein, dorsal or enlarged cavernous veins), which makes it impossible to maintain an erection at the proper level (to achieve orgasm). Given that the varicocele is also a manifestation of pathology of veins due to abnormal flow of blood, it can be assumed that there's an innate predisposition to ectopic veins and insufficiency of genitalia in patients with varicocele and comorbid ED. When patients have distal venous leakage through deep dorsal veins and Santorini plexus, sclerotherapy of deep veins by R.Hervig shows good results. Unfortunely there are no officially registered sclerosants in Ukraine. That is why to stop pathological bloodflow, we use embolization with metallic spirals. But if the patients have proximal venous leak we suggest better effectiveness of treatment by ligation of the pathological shunts.

Materials and Methods. On the basis of the KRCCUN, comprehensive examination and treatment of 65 patients suffering from ED, veno-occlusive form and bilateral varicocele was conducted. The average patient age was 37.5 +4.4 years. This form of ED is diagnosed by medical history and by Doppler mode ultrasound of the scrotum and penis. The patients underwent surgical treatment: bilateral operation of "Marmar" with ligation of the veins (pathological

shunts) coming from the penis to the spermatic cord and vena superficial penis. Before the operation, we injected 10 mg of alprostadil and 1 ml of papaverine into the penis for enlargement and better searching of the pathological shunts.

Results. The efficacy of surgical treatment of the subjective (questionnaires on IIEF) - 83.7%, the objective –in the absence of venous shunt on Doppler US -94%.

Conclusions. 1) Bilateral 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 of Marmara is a highly effective (85-94%) method of treatment for patients with proximal venous leak. 3) Angiosurgery with embolisation of the deep pelvic vein is a satisfactory method (67%) for treatment of ED in patients with distal venous leak.

Olefir O., Zamyatin D.

HEART AND PERICARDIUM DIAGNOSTIC FEATURES DURING MINE-BLAST TRAUMA

Mentor: Zamyatin P.
Department of surgery #1
Kharkiv National Medical University

Mine-blast trauma of heart is considered to be the most common type of fatal injuries during peacetime and wartime. The experience of treating this kind of trauma is negligible, even in the world`s leading hospitals.

Aim: The aim was to evaluate the informativeness of symptoms obtained by objective examination, as well as the data of instrumental and laboratory studies in patients with mine-blast injury of the heart.

Material and Methods: There were 74 patients with mine-blast trauma, to perform our tasks we used such methods as 1. Physical examination of the patients cardiovascular system: - palpation - percussion - auscultation 2. Instrumental methods: - electrocardiography 3. Laboratory methods: - determining CK and it`s MB-fraction level - determining troponin I level

Results: 1. According to the information content of the clinic clinical symptoms: -
Pain in the heart - in 25.65% -
Voiceless heart tones - at 100.0% -
Systolic murmur at the apex - to 9.45% -
Pericardial rub - 5.4% -

Tachycardia - 120 bpm. 1 min. - 16.2% -
Decrease in systolic blood pressure <60 mm Hg. Art. - In 37,8-47,25% -
Decrease in pulse pressure <15 mm Hg. Art. - In 32,4-44,55% 2.
ECG in patients with cardiac injury – Changes in the T wave detected in 75, 7% of cases, - P wave - 35.1%, the segment S-T - 35,1%, - Arrhythmia - in 68.9% of cases. Conclusion: 3. - Increased level of CK in patients with heart contusion was observed in 100% cases - Increased level of MB-fraction was observed in 96.7% - Ratio of MB-CK and total CK higher than 5% occurred in 26.7% of cases 4. The troponin I level in patients with heart contusion was increased in 100% of cases.

Onuchukwu Chibuzor Victor, Gavura M.

EFFICACY AND SAFETY OF SURGICAL TREATMENT OF THE VITREOMACULAR TRACTIONAL SYNDROME

Research advisor: Zubkova D.
Kharkiv National Medical Iniversity
Department of ophthalmology, Kharkiv, Ukraine

Actuality. Background Vitreomacular tractional (VMT) syndrome is a disorder of the vitreo-retinal interface characterized by an incomplete posterior vitreous detachment, an abnormal strong adherence of the posterior hyaloid membrane to the macular and anteroposterior traction leading to formation of macular hole. This pathology is becoming a menace in the society due to its prevalence reported to be 22.5 per 100,000 population annually and high incidence rate in Ukraine and in Europe and is becoming more among the aging population.

The aim. Was to analyze efficacy and safety of the pars plana vitrectomy with inner limiting membrane peeling among patients with VMT syndrome.

Materials and Methods. Under supervision there were 17 patients with VMT syndrome. Research methods were best-corrected Snellen visual acuity, static perimetry, Amsler grid and optical coherence tomography before and after the operation. The follow-up period was 3 years.

Results. The pars plana vitrectomy with inner limiting membrane peeling caused disappearance of retinal traction that results in a gradual decrease of macular edema according to a data of optical coherence tomography as well as improvement of distant prognosis. After 3 years, visual acuity increased from 0.42± 0.05 to 0.61± 0.04 (p =0.01), scotoma frequency decreased from 100 % eyes to 57.1 % (p =0.04), and metamorphopsia

frequency decreased from 100 % eyes to 79.2 % (p=0.04).

Conclusion. This study show that pars plana vitrectomy with inner limiting membrane peeling is effective and safe in complex treatment of VMT syndrome.

Pazhin S.O., Ponomareva K.V., Minuhin D.V., Lozhko N.V.

ROENTGEN-ENDOVASCULAR METHODS OF HEMOSTASIS IN PATIENTS WITH PULMONARY HAEMORRHAGE

Research advisor: Boyko V.V., Professor
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Department of Surgery No. 1, Kharkiv, Ukraine

Actuality. Pulmonary haemorrhage (PH) as a complication can be found in 7-14% patients with different diseases of lungs that reach thoracic region.
A great number of control means for this pathology, the part of which is based on wrong belief about pathogenesis of PH, typically complicates the choice of optimal treatment tactics, and leads to ungrounded extension of indications for major surgical interventions that is detrimental to short-term results and unsatisfactory rehabilitation of patients in remote period. Endovascular embolization of bronchial arteries makes it possible to accomplish final hemostasis in 90-95% cases and this is one of the main treatment methods of this severe complication in patients with malignant tumors.

The aim. Efficiency improvement of treatment of patients with PH of different etiology using endovascular surgery methods.

Material and methods. Roentgen-endovascular intervention was performed for 119 patients in clinic of State institution called "Institute of General and Emergency Surgery named after V.G. Zaytsev of National Academy of Medical Sciences of Ukraine". Among them 39 patients had acute and chronic inflammatory lung diseases and 80 patients had malignant diseases complicated with PH. Bronchial and intercostal arteries angiography makes it possible to define the source of haemorrhage and the following roentgen-endovascular embolization of bleeder allows temporary or final controlling of PH. Catheterization of bronchial arteries was performed according to standard methods. Synthetic emboli treated with sclerosing agents from poly-urethane foam or hemostatic sponge of 1-3 mm in diameter were used as embolic agent. Bronchial arteries occlusion was stopped if contrast agent reflux occurred in thoracic aorta and clear symptom

called "blood flow retention" appeared in bronchial arteries.

Results. It was found that out of 119 patients after endovascular occlusion of bronchial arteries the final hemostasis was achieved in 107 (89%) patients. Relapse of haemorrhage in remote periods after roentgen-endovascular embolization occurred in 12 (10%) inoperable patients with malignant diseases of lungs. Repeated roentgen-endovascular embolization with positive results was performed for 10 (8.4%) patients and conservative therapy used for 2 (1.7%) patients was without effect.

Conclusions. Therefore angiography of bronchial arteries is highly effective in defining localization and source of PH and solving the problem of hemostasis in oncologic or obstruction lung diseases. Endovascular intervention provides effective (89%) hemostasis in PH and allows reducing mortality from 10.2% to 1.7%.

Petiunin Pavlo; Petiunina Victoriya; Petiunin Olexij

A NEW NONINVASIVE TECHNIQUE FOR EVALUATION OF ACUTE-ON-CHRONIC LIVER FAILURE IN THE CIRRHOTIC PATIENTS.

Research advisor: Byzov Denys, Assoc. Prof.
Kharkiv National Medical University
Department of General surgery №2, Kharkiv, Ukraine

Actually. "Acute-on-chronic liver failure" (ACLF) is a most common postoperative complication in the cirrhotic patients, which results in a patients death in 33,9% - 53%. That's why the early diagnosis, prevention and treatment of ACLF is one of the important problems of modern hepatobiliary surgery.

The aim. Of this study is to work of new noninvasive technique of functional liver reserve evaluation in cirrhotic patients, based on use of Doppler ultrasound, in order to prevent and diagnose ASLF postoperatively.

Materials and methods. We included 137 patients with liver cirrhosis, at whom surgical treatment was performed. In 81(59,12%) cases was performed the distal splenorenal shunt by Warren, in 56 (40,88%)– devascularization surgery. Doppler ultrasound of portal blood vessels was done at admission by Moriyasu et al. method. The statistical analysis was performed by use of "Microsoft Excel 2000" and "SPSS 10.0 for Windows".

Results. Patients with postoperative ACLF had portal vein diameter to be enlarged up to 1,5 □

0,026 (P<0,001), splenic vein diameter also becomes to be enlarge up to 1,32 □ 0,035 cm (P<0,001) in comparison with patients without ACLF. Patients with postoperative ACLF had linear portal blood velocity to be decreased to 10,8 ± 0,48 cm/sec (P<0,02) with simultaneously increased portal congestion index up to 10,8 ± 0,48 cm x sec (P<0,001) in comparison with patients without ACLF.

Volumic portal blood velocity at development of ACLF decreases to 997,57 □ 72,11 ml/min, but differences are statistically insignificant. These changes of potal hemodynamics can be explained by more expressed increase in connective tissue mass in hepatic parenchyma at patients with developed ACLF.

Analysis of portal Doppler ultrasound results revealed that linear portal blood velocity together with portal congestion index are most significant indexes, reflecting character of pathological liver changes. Liver cirrhotic patients with developed postoperative ACLF had linear portal blood velocity 1,6 times less both portal congestion index 2,8 times more than patients without this complication.ACLF developed in patients, who had portal vein diameter more than 1,5 cm, linear portal blood velocity less than 10,8 cm/sec, portal congestion index more than 0,14 cm x sec.Conclusion. Doppler ultrasound, used for evaluation of a portal hemodynamics, is a modern noninvasive effective technique in diagnosis of acute-on-chronic liver failure.

Conclusion. ACLF development is accompanied by increase in diameters of portal and spleenic veins, decrease in linear portal blood velocity, volumic portal blood velocity, increase in potal congestion index.

Linear portal blood velocity and portal congestion index most exactly reflexes the character of pathological changes in liver.

Petrychenko I.I.

DILATED PUNCTURE TRACHEOTOMY

Research Advisor: Kalashnik J., Assistant
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Actuality. Over the last years the priority is being given to the dilated puncture tracheotomy method. This technique is widely used in the world practice.

This kind of tracheotomy has to be executed by a team of doctors consisting of a resuscitator-anesthesiologist, anesthesiology nurse, endoscopist. The surgery must take place in the intensive therapy unit. The primary ground for percutaneous tracheotomy is the necessity of prolonged ALV to prevent ventilator associated pneumonia and pressure injuries of mouth corners. The surgery is conducted under general intravenous anesthesia. Neuromuscular blockers are also absolutely necessary in order to avoid coughing during the trachea puncture, which, in its turn, significantly reduces the risk of injuring the trachea back. The main methods include: one-step dilatation (Smiths-Portex), subsequent dilatation (Rusch), Grigg's method (Smiths-Portex), «twisting in» method (Rusch). The first stage of the surgery is the same for all methods. It includes regulation of the endotracheal tube and installation of a conductor according to the Seldinger method. The bronchoscope is inserted into the endotracheal tube and its end is installed at the distal opening level of the tube. The syringe is filled with low-concentrated local anesthetic (for better hydropreparation of tissues), a needle hub is put on, the skin is punctured at right angle to the skin in the spot of the bronchoscope visualization and the needle moved inwards injecting the anesthetic and intermittently pulling the plunger. Having got air from the aspiration, the needle is moved another 2-3 mm, the hub is moved down the needle and into the trachea. A metal flexible conductor is entered through the hub. Skin incision with a lancet is carried out where the stoma is supposed to be, left a right of the conductor. The size of incision should correspond to the size of the installed tube. Further actions depend on the chosen method.

The most frequently used method is the Griggs method, due to its numerous advantages. When this method is used, the stoma is shaped by means of Howard-Kelly clasp, which has an internal channel for the conductor. The primary dilatation is carried out with a small-diameter dilator. Then the opening in the trachea is done by clasp. The tube with an integrated obturator is put

on the conductor and injected into the trachea. Then the tube cuff is inflated and the obturator is removed together with the conductor. The breathing circuit is switched to the tracheotomy tube, endostomic tube is removed lowering the cuff.

Conclusions. Unlike the traditional way, this method is less traumatic, the risk of bleeding during the execution is reduced, and the surgery takes less time compared to the open method. At a later stage it reduces the risk of the surgery wound infection and the size of the surgical scar.

Prykhodko D.O., Arustamova G.S., Khatsenko I.O.

CLINICAL FEATURES OF EXPERIMENTAL MODELS OF OCULAR HYPERTENSION AND GLAUCOMA

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Scientific leader – professor Panchenko M.V.

Topicality: The research of glaucoma always causes the great interest for doctors and scientists. Glaucoma is the leading matter of blindness and visual impairment worldwide. Currently there are some available models in which glaucoma is caused by corticosteroids (L. Bonomi et al., 1978). However, this model has a range of complications such as the formation of purulent corneal ulcers and steroid cataract development. It is a model of primary and hormone glaucoma. There is also a model of glaucoma induced by injections of hypertonic saline into episcleral veins (J.C. Morrison et al., 1995). The advantage is a gradual increase of intraocular pressure (IOP), but it can be associated with inflammatory complications, corneal opacity, vascular ingrowths, which complicates the fundus examination. There are models of glaucoma with using of administering substances in the anterior chamber - viskoelastik- (L. Tongren et al, 2000) and microspheres - (J.H. Urcola et al, 2006). There are complications as inflammation of the anterior segment of the eye, which makes difficult visualization of the clinical picture. These models are accompanied by rapid and sharp increase of IOP and used as models of ophthalmohypertension. Also the outflow of intraocular fluid can be blocked by coagulation of episcleral veins (S.R. Shareef et al. 1995). In the experimental result there is an increase of IOP due to an acute process, while a human glaucoma is a chronic pathological condition.

Objective: To create a model of glaucoma in rabbits as close as it is possible to human disease and to evaluate the dynamics of the IOP.

Materials and methods: Model of glaucoma was established in old rabbits (n=10), bred chinchilla and white giant by the injections of adrenaline into the ear vein (E.M. Lipovetskaya, 1966) by proposed method of I.N.Miheytseva (2011). There was a control of IOP before the injections of adrenaline and after development of glaucoma using Maklakov tonometer (weight 7.5 g) under the local anesthesia.
Results: The injections of adrenaline caused a gradual increase in rabbits' IOP with the subsequent development of excavation of the optic nerve.
Conclusion: The experimental glaucoma, caused by the injections of adrenaline in rabbits, corresponds to the clinical picture of the primary open-angle glaucoma in human. It can be used as a model for studying of the drugs' effects in the treatment of glaucoma.

Riznychenko A.N.

ANALYSIS OF FEATURES GUNSHOT BONES WOUNDS

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Actuality. Character of wounds taking in time of hostilities has change, when the firearms emergence. Firearms of old time fractures were perforated and diameter of wound channel matched diameter of bullet nearly 15-17 mm. Because of low start bullet speed outlet did not have and wounds were closed. In modern conditions 35-40% of gunshot wounds accompanied bone fractures. This is very important fact because in 65% of gunshot wound bones accompanied with shell-shock, 96,7% - with massive blood loss, 31% - secondary bacterial infection.

The aim. In conditions of situation in the East part of Ukraine, it's necessary to know most frequent features of gunshot bones wounds and take to consideration experience of wars from WWII to modern time.

Materials and methods. Outlet have biggest dimensions, if bullet have shifted center of gravity outlet can to be near inlet and crack manifest between them. Seriousness of spinal wound depends on damage or contusion of spinal cord, save of bone structures and nearly organs. Even if bullet directly not damage spinal cord, contusion of spinal cord is occur. The most common complication of spinal cord wounds is peripheral paralysis. Moreover, other complication are shell-shock, blood loss, festering of wound,

sepsis, pneumonias, arachnoiditis, scarring of spinal cord. Treatment is replacement of destroyed vertebrae implants, fixation of broken processes with intraosseous ostheosynthesis. Outlet have biggest dimensions, if bullet have shifted center of gravity outlet can to be near inlet and crack manifest between manifest them.

Wounds of human limbs divide depending on marginal and fully: transverse, longitudinal, oblique, comminuted and crushed. Most frequently this wounds are primary open and primary bacterial infected. High kinetic energy of bullet causes destroy of bone tissue with form a lot of fragments and damage closed placed nervous and blood vessels. In case of wound limb must be fixed in Krame bus or cast to avoid the occurrence of shell-shock. In next stages of medical evacuation after X-ray survey held wound excision and determined seriousness of bone wound. Lost contact with periosteum fragments and contaminated extremities of bones are deleted from wound. Remaining bone fragment are fixated with extramedullary ostheosynthesis. After wound healing, especially wound of shin, use methodic of extrafocal ostheosynthesis. Use spoke devises, core devises are commonly use in case of femur wounds.

Conclusion. Because of high level of military techniques and increase of start bullet speed number of though wounds are increase, gunshot bones wounds become more destructive. So further study and design of new bone wounds treatment methodic and package of complication prophylactic are necessary.

Robak Vsevolod, Kurbatov Vadym, Drana Lydmyla

THE CHOICE OF OPERATIVE ACCESS IN PATIENTS WITH ACUTE NECROTIC PANCREATITIS

Research advisor: Syplyvyi Vasyl, Professor
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Actuality: as you know, the choice of operative asses should provide not only conducting of adequate operative method, but also ensure quick postoperative rehabilitation of patient.

The aim: to find the correlation between the operativel access and the regeneration rate of the major body systems in patients with acute necrotic pancreatitis.

Materials and methods: There is an analysis of surgical treatment of 100 patients with acute necrotic

pancreatitis. All patients operated. Laparoscopic sanation and intraabdominal drainage performed in 35 patients. Medial laparotomy performed in 50 patients. Subcostal asses performed in 15 patients. Conversion after laparoscopic diagnostics performed in 10 patients. From them subcostal asses performed in 7 paients, medial laparotomy – in 3 patients. For determining the recovery rate in early postoperative period we used Acute Sepsis Severity Evaluation Scale – ASSES (Syplyviy V., 2005).

Results: The degree of severity of patients before operation was (15,05±1,04) points. 24 hours after operation degree of severity of patients undergoing laparoscopy was (11,5±1,37) points, undergoing subcostal laparatomy – (13,44±2,01) points, undergoing medial laparotomy – (15,1±1,02) points ($p<0,05$). 72 hours after operation degree of severity of patients undergoing laparoscopy was (9,1±1,97) points, undergoing subcostal laparatomy – (11,3±1,52) points, undergoing medial laparotomy – (12,2±1,76) points ($p<0,05$).

Conclusions:

1. The course of acute necrotizing pancreatitis accompanied with multiorgane failure.
2. There is a direct correlation between the operative asses and recovery rate in early postoperative period in patients with acute necrotic pancreatitis.
3. The least traumatic access to operations in acute necrotic pancreatitis ensuring rapid recovery of the major body systems is the laparoscopic. If the conversion is necessary, the preference should be for subcostal access as possible.

Salawu K.T.

ROLE OF DIFFERENT PARTS OF THE DUODENUM IN THE SEVERITY OF DUODENAL TRAUMA

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Actuality. The occurrence of duodenal trauma is rare due to the deep location of the duodenum, its relatively small size, and protection from surrounding organs. The duodenum is divided into the 1st(superior part), the 2nd(descending part), the 3rd(inferior part), and the 4th(ascending part).

The aim. Of the research.To determine the connection between the affected parts of the duodenum and the severity of duodenal trauma.

Materials and methods. The study involved 20 patients. The

patients were divided into 4 groups: 5 patients with trauma of the 1st part of the duodenum (D1) had injuries of the pancreas, gallbladder and bile duct, 5 patients with trauma of the 2nd part of the duodenum (D2) had injuries of the pancreatic duct and common bile duct, 5 patients with trauma of the 3rd part of the duodenum (D3) had injuries of the superior mesenteric artery, and the remaining 5 patients with trauma to the 4th part of the duodenum (D4) had no accompanying injuries.

Results. The severity of the duodenal trauma was assessed according to the duodenal trauma scale by the AMERICAN ASSOCIATION FOR THE SURGERY OF TRAUMA. Patients in groups D1 and D2 had the most severe symptoms. Their symptoms included pancreatitis, cholecystitis, cholangitis, duodenal diverticulum, and peritonitis. While, patients in groups D3 and D4 had mild symptoms of colitis, and a slight risk of superior mesenteric artery syndrome. Patients in groups D1 and D2 fell into grades 4 and 5 of the duodenal trauma scale while those in groups D3 and D4 fell into grade 1 of the trauma scale.

Conclusions. Patients in groups D1 and D2 were in grave conditions and had a higher risk for mortality. Only 5% of patients in groups D3 and D4 with superior mesenteric artery syndrome were at high mortality risks. We have come to a conclusion that patients with affection of more vital organs like pancreas, gallbladder, and bile duct had the most severe forms of duodenal trauma while those with less affection of surrounding organs had milder forms of duodenal trauma.

Ivzhenko L., Sheremeta I.

THE NATURE OF CHANGES IN MEIBOMIAN GLANDS IN PATIENTS WITH DIABETIC POLYNEUROPATHY

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Actuality: Diabetic neuropathy is interpreted as dysfunction of the somatic and/or autonomic peripheral nervous system, caused diabetic and dysmetabolic pathophysiological processes. The frequency of diabetic neuropathy, according to different authors, varies from 40 to 95% of all cases of diabetes. Disorders of innervation of the meibomian gland in DPNP leads to changes in the composition and stability of the tear film, which is manifested by blurred vision,

dryness and burning of the eyes, in some cases, their redness.

Objective: to examine the nature of changes in the condition of meibomian glands in patients with diabetic polyneuropathy.

Materials: The main group - 50 patients with diabetic diabetic polyneuropathy aged 45-75 years (20 male, 30 female). The control group - 40 healthy persons of the same age (19 males, 21 females).

Methods: Besides standard ophthalmological examination the Schirmer's and Norn's tests, meibography were carried out as well. We determined the quantity and condition of the meibomian glands over one-third century of eyelid according to Korb classifications, 2005. Pflugfelder scale. According to the DPNP classification (Bowker J., 2001 года), все patients were divided into groups. The first group (17 patients) – patients with asymptomatic A и B DPNP, the second group (19 patients) – patients with symptomatic A и B DPNP, the third (14 patients) – patients with severe complications of diabetic polyneuropathy.

Results: All indicators of meibomian glands secretion among patients with diabetic polyneuropathy were decreased in comparing with the control group. The result of Schirmer's test in patients with asymptomatic A и B DPNP was 7 ± 2,6 mm and 6±1,8 mm, on the scale of the Pflugfelder patients was graded as 1 and 2 classes. The second group, patients with symptomatic A и B DPNP, the results of Schirmer's test were 4,7 ± 2,2 mm и 3,6±2,4mm, the scale of the Pflugfelder patients was graded as 2 and 3 classes, in the third group, patients with complications, the results were: 3.8 ± 1.5mm, and class 3, respectively. **Conclusions**: Our findings suggest that meibomian gland dysfunction develops among all patients with diabetic polyneuropathy. In the first group of patients the results of the Schirmer's test decreased by 53.4% compared to the standart results, in the second – 68,7%, in the third – to 74.7%. The results of our investigations confirm functional disorders of the meibomian glands in patients with DPNP.

Shirgba Sonter Sonte' Jacob

AORTIC ANEURYSMS (ABDOMINAL AORTIC ANEURYSM)

Research advisor: Goni Kateryna
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Actuality. An aortic aneurysm is enlargement (dilation) of the aorta greater than 1.5 times normal size. Approx. 36.5 cases of abdominal aortic aneurysms are diagnosed per 100,000 individuals. It occurs mostly in individuals older than 50 years of age. And they occur in men more than in women with the ratio 2:1. The ratio of aortic aneurysms of different localization similar to the following: aneurysm of the abdominal aorta account for 37% of cases, the ascending aorta - 23% of the aortic arch - 19% of the descending thoracic aorta - 19.5%. The leading causes of aortic aneurism are atherosclerosis, uncontrolled hypertention, inherited or congenital syndromes such as Marfan syndrome, infection, tobacco use, blunt or shape trauma. Complications include rupture, peripheral embolization, acute aortic occlution and aortocaval (between the aorta and inferior vena cava) or aorta duodenal (between the aorta and duodenum), fistulae, colon ischemia if ruptured, blue toe syndrome and cholesterol embolization of feet, renal failure, bowel obstruction, impotence in male, stroke, fetal hemorrhages, myocardial ischemia, death.

Materials and methods.Case report: In the surgical department at regional hospital was admitted a 70yr old man complaints about the presence of pulsating tumor formation in the abdominal cavity. Patient considers himself sick 1.5 months ago, after carry a heavy load he noticed an appearance of pulsating tumor formation. He was sent for further examination, treatment.

Patient had history of CHD, atherosclerosis, and never controlled and treated hypertension.

Results. After all the required test was carried out on this patient he was finally diagnosed with abdominal aortic aneurysm. Presently, patient is status is moderately severe and is being prepared for surgery.

Conclusion: aneurysms generally life threatening disease, especially the abdominal aortic aneurysms that are asymptomatic at the initial stage. Symptoms appear when the vessels are rupture and it requires surgical attention.

Sykykh V.I., Poradiuk K.V.

PLASMOTHERAPY AS AN ADDITIONAL THERAPEUTIC METHOD IN SURGICAL AND NON-SURGICAL THERAPY OF CRITICAL LIMB ISCHEMIA PATIENTS

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Actuality. Critical limb ischemia (CLI) value of all vascular problems is above 20%. Approximately 2-3% of world`s population suffer from this disease. Nowadays increases amount of combined treatment. Many researches were done to prove the importance of combined therapy. The aim of our research is to show the result of combination of surgical or non-surgical treatment with plasmotherapy. Analysis of the dynamics of the quality of life during one year was made with the questionnaire SF-36 with 2 additional questions - pain-free walking distance and level of pain on VAS.

Materials and methods. 56 patients with CLI with distal type of leasion were enrolled in the research. Etiology of CLI was atherosclerosis or postthrombotic occlusion. Patients were divided into 3 groups. The first group (26 patients) is patients, whom combined therapy was made. The second (30 patients) – treatment without plasmotherapy. Each group was devided into 3 groups - I – treated by open surgical reconstruction, II – by endovascular surgery, III – non-surgical treatment.

Results. If we compare the results of treatment in the group 1.l with group 2.l we can't find significant difference. The same if we compare group 1.ll with 2.ll. The change of physical health in both groups was approximately from 31.15 to 78.47, mental health from 30 to 72.1, pain-free walking from 87 to 540, pain rate from 5.5 to 0.2. But when we compare the results of treatment in group 1.lll with 2.lll we can see, that there is significant difference. Physical functioning in group 1.lll (according to SF-36) grows from 31.21 to 45.43 just after treatment and continue to grow to 68.84 in one year, mental functioning grows from 33.81 to 47.43 and to 66.23, pain-free walking grows from 73.3 meters to 94.6 to 268.4, pain rate on VAS decreases from 5.3 to 2.4 to 2.4. In group 2.lll physical functioning rate changes from 32.64 to 46.61 to 45.32, mental functioning goes from 36.13 to 44.65 to 42.57, pain-free walking changes from 76.4 to 97.3 to 122.4, pain rate changes from 4.9 to 3.1 to 3.2.

Conclusions. According to the results we can say that combination

of non-surgical treatment of CLI with plasmotherapy gives patients better results than just non-surgical treatment. In surgical patients there was no significant difference between combined and non-combined therapy, but the general result was better.

Tregub Yevhenii

USING OF LAPAROSCOPIC TECHNOLOGIES IN TREATMENT OF PERFORATIVE GASTRODUODENAL ULCERS

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Actuality: Perforative gastroduodenal ulcer (PGDU) is a life-threatening complication that occurs in 10-15% of patients with peptic ulcer disease (Vasiliev YV, 2003; Zamyatin VA, 2006). Nowadays laparoscopic technologies are commonly used in urgent abdominal surgery, including the closure of perforated ulcers. According to Yermolov AS(2010), laparoscopic operation may be performed in 50-70% cases of PGDU.

Aim: To learn the results of laparoscopic suturing of PGDU.

Materials and methods: We studied the experience of the application of laparoscopic technologies for surgical treatment of PGDU among 76 patients at the clinic for the period of 2009-2015. Age of patients was 19 to 72 years with an average age of 38.3± 5.6 years. The number of males among the sample was 66 (86.8%) persons, women - 10 (13.1%) persons. The average time from the moment of perforation till hospitalization was 5,7 ± 2,5 hours. The types of peritonitis observed: local - in 49 (64.4%) patients, general - in 27 (35.5%); the type of exudate: serous - in 53 (69%) patients, purulent - in 16 (22%), fibrinopurulent - in 3 (4%) cases. Before the surgery all patients were investigated using classic methods of examination, according to the Order of Ministry of Health of Ukraine № 297 from 02.04.2010. As an indication for laparoscopic intervention we considered: an acute ulcer perforation, size of perforation up to 10 mm and an absence of other ulcer disease complications.

Result: The suturing of perforated hole was performed in simple interrupted suturing technic using an atraumatic needle with monofilament thread. A strand of omentum was sutured over the stitches. The operation ends with peritoneal cavity sanation and setting a pipe drain. Duration of

laparoscopic operation was averaged about 93.5 minutes. After surgery, all patients recieved modern antisecretory and anti-Helicobacter therapy and broad-spectrum antibiotics. All patients had early physical activity (2nd day) and restoration of peristalsis (2nd day). Peroral nutrition started after 3 days. Early postoperative complications were observed in 3 (3.9%) patients, of which pneumonia - in 2 (2.6%), subdiaphragmatic abscess - 1 (1.3%), which was eliminated using puncture-draining method under ultrasound control. The average hospital stay was 8.5 days. All patients continued anti-ulcer treatment after hospital discharge. In the far periods of 1 to 3 years 42 (55.2%) patients were examined. On a scale Visick excellent and good results were obtained in 31 (73.8%) patients, satisfactory results (erosive gastritis, duodenitis) - 10 (23.8%), bad result (relapse of peptic ulcer) - in 1 (2.4%) case.

Conclusions:

1. Laparoscopic suturing of PGDU is an effective and safe method of treatment, which allows to conduct a full revision of the abdominal cavity and adequately sanitize it.
2. Laparoscopic suturing PGDU with further modern anti-ulcer therapy may improve the quality of life of the patient and leads to a convalescence in 97.6% of cases.

Trofimov Mihail Andreevich

DIAGNOSICS AND TREATMENT OF BACTERIAL LIVER ABSCESSES

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Actuality: Bacterial liver abscesses (BLA) constitute 0.16% surgical diseases that need surgical treatment. Traditional open methods of BLA treatment lead to post-operative complications and higher postoperative mortality from 17% to 55%.

Objective: To improve the results of surgical treatment of BAP.

Materials and methods: during the period 2005-2015y. there have been treated 64 patients with BAP in the clinic. All patients were divided into 2 groups. The first group- patients operated conventional open surgical access using the method of Kocher and middle laparotomy- 25 (39%). The second group- 39 (61%) patients who were performed minimally invasive interventions under the control of UZI-25 (39%) and with the use of laparoscopic techniques - 14 (21.8%).

All groups performed a standard set

of clinical, laboratory, radiologic, endoscopic, ultrasound and spiral CT research methods. In all cases evaluated abscess size, localization of liver segments, their number and relative positions of the liver with tubular structures.

Result: In the first group after laparotomy was performed an audit of the abdominal cavity, retroperitoneal space, performed an autopsy and drainage of abscess with double barreled drainage - 8 (32%). The anatomical and atypical liver resection was performed in 7 (28%) patients. Indications for liver resection was considered multiple BAP within the same anatomical region and major abscesses (more than 10cm) occupying the whole anatomy of the liver. Early postoperative complications in this group were: postoperative wound abscess- 4 (16%), abdominal bleeding- 1 (4%), bile leakage- 1 (4%), abdominal abscesses- 2 (8%), exudative pleuritis - 3 (12%) pneumonia- 5 (20%). No deaths were observed. The average period of hospital stay was 18.5 ± 2 per bed-day.

In the second group treatment was to puncture and drainage under ultrasound BLA at the sizes of abscesses from 1 to 10 cm- 29 (74%). Regardless of the number and location of BLA in the remaining 10 (26%) patients underwent laparoscopic drainage of abscesses. After surgery, all patients performed daily sanitation of abscesses with solutions of dekasan and dioksizol and received antibiotic therapy with broad-spectrum and hepatotropic orientation. Postoperative complications in this group were: pneumonia- 17 (43.5%), exudative pleuritis - 21 (53.8%). No deaths were observed. The average length of hospital stay- 10,2 ± 1,5 bed-days. Long-term results were followed from 6 months to three years. Relapse of the disease were not observed.

Conclusions: 1. Minimally invasive BAP treatments are effective and safe method which can reduce the number of postoperative complications and shorten hospital stay.

2.The odds of puncture- draining interventions is no need for general anesthesia, small trauma, high precision drainage, the opportunity to continue treatment as an outpatient.

Tsopozidis Christos, Borisenko Anastasia, Telezhnyi Andrii

CLINICAL CASE: SOMATOPSYCHIC DISORDER IN A FEMALE PATIENT WITH MULTINODULAR EUTHYROID GOITER

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Actuality. Psychogenic disorders referred to as nosogenies due to the influence of psychotraumatic events associated with somatic disorder. In case of combined impact of a number of adverse factors, the reaction to the disease can become so extreme that its management in the early stages of therapy seems no less important than the direct treatment of somatic condition.

Materials and methods. We present a clinical case of somatopsychic disorder in a female patient with Multinodular goiter, grade 2, euthyrosis.

Complains: enlargement of the thyroid gland, tickling, sensation of a lump in the throat, choking in horizontal position, general weakness, chills, dizziness, fear for her life associated with the presence of oncological disease.

On physical examination the thyroid gland is visually identified. On palpation it is of dense elastic consistency, nodular, partly located behind the breastbone, nodal masses in both lobes of up to 4-5 cm in diameter, dense consistency, mobile, painless, no adhesion to the skin.

Thyroid hormone levels: TSH 2.4 mIU/L, total T4 102 nmol/L, total T3 2.2 nmol/L, free T4 16 pmol/L, free T3 8,4 pmol/L, TPOAb 70 mU/l.

Thyroid gland ultrasonography: In the structure of the gland the similar type of isoechogenous masses of heterogeneous cystic-solid structure with clear boundaries: 14×10×12 mm in the middle segment of the right lobe, 35×26×37 mm in the lower segment of the right lobe, and 43×32×35 mm in the lower segment of the left lobe.

Fine-needle aspiration biopsy of the thyroid gland №0402/825. Microscopically: in the midst of the peripheral blood cells and basophilic colloid there are unchanged A-cells in the form of singular layers, and B-cells. No atypical cells were found.

Subtotal resection of the thyroid gland was performed.

Histological conclusion: the nodular micro-macrofollicular colloid goiter with secondary changes, microfocal chronic lymphomatoid thyroiditis.

Results. 2 weeks after receipt of the histological conclusion the patient began to hold demands against medical staff about the unreasonable surgery, which caused, in her words, her disability, inability to perform daily activity at home and

at work. The patient again began complaining to tickle, feeling of a lump in her throat, choking in horizontal position, general weakness, tremor, excessive sweating, hot flushes, chills, dizziness. The patient undeniably refused to re-consultation.

Conclusion. The above example demonstrates the difficulty in selecting the tactics of management for such patients due to development of symptoms primarily determined by psycho-emotional tension. This category of patients should be followed not only by endocrinologists, surgeons, but the multidisciplinary team, including psychiatrists, and psychotherapists.

Volik M.

THE STIMULATION OF PROSTAGLANDINS IN THE TREATMENT OF ERECTILE DYSFUNCTION

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Actuality. The incidence of erectile dysfunction (ED) is 26.2%. Today a man suffering from ED wants to have a full erection at any age and at any time, and also have the ability to control its duration.

The aim. To evaluate the clinical efficacy and safety of intracavernosal injection therapy with prostaglandin E in comparison with other conservative treatment methods.

Materials and methods. We were observing 67 patients with impaired erectile function during 12 months. The mean age of patients was 56.1±12.3 years. The mean duration of ED was 3.2±2.1 years. The evaluation criterion was ED the International Index of Erectile Function (IIEF), calculated using questionnaire. All patients were divided into 3 groups. Group 1 (n=19) used the endocavernosus injections of Alprostadil in a dosage of 10 micrograms combined with 1 ml. papaverine. Group 2 (n=20) applied Tadalafil 10 mg (the group of inhibitors of phosphodiesterase type 5 (PDE5) daily. The 3rd group was prescribed Tadalafil 10mg daily in combination with rectal administration of the drug Vitaprost-Forte which stimulates the production of own prostaglandins.

Results. It was found that among the patients of the 1st group successfully carried out sexual intercourse was registered in 94%, in comparison with the 2nd and the 3rd group, which had number of sexual acts 78.4% and 92.3%, respectively. The erection was achieved most quickly in patients of

the 1st group (7±2.6 min), while in the 2nd gr. – 31, 3±6, 3 min and in the 3rd – 45, 4±12,6 min. The average duration of sexual intercourse was the longest in patients of the 1st gr. - 70±15, 1 min., and the shortest– in the 2 gr. – 5, 6±2, 3 min. In addition, the synthesis of own prostaglandins in patients of the 3rd gr. was increased (in average of 2.32±0.54 times) what was diagnosed by laboratory biochemical analysis of blood. All patients were examined with the purpose of identifying side effects: in the 1st gr. 5, 2% of patients had priapism, 15.6% - pain, 10.3% - hematoma, 5, 2% - development of cavernitis, 21.7% - fibrotic changes in the penis, bound during the ultrasound examination with Doppler. In the 2nd and 3rd gr. 25% and 16.4% of patients had a headache respectively, 30% and 12.1% - redness of the face, 15% and 11, 2% - nasal congestion. After 20 days of the treatment, the 42% of the patients of the 3rd group have stopped using Tadalafil daily because of significant improvements of sexual function, changing the reception on demand.

Conclusions. 1. As a result of our research it has been proven the high efficiency (92, 3%) and good tolerability of the combination of Tadalafil with prostatotropic drugs to improve patients own production of prostaglandins in the treatment of ED. 2. The effectiveness of this combination is comparable to injections of Alprostadil (94%), while it's significantly safer and has fewer side effects compared to the 1st and 2nd groups (16,4% versus to 21.7% and 30%, respectively).

YaremkoI.Ya., TrofimovaA.V., MelnikovV.V., SapayA.V., TyshkoO.S.

FEATURES OF RHE LAPAROSCOPIC CHOLECYSTECTOMY IN PATIENTS WITH PNEUMOCONIOSIS

Research advisor: LupaltsovV.I., Corresponding member of NAMS of Ukraine, Professor Kharkiv National Medical University Department of Surgery №3, Kharkiv, Ukraine

Actuality. Tense carboperitoneum during laparoscopic cholecystectomy (LCE) in patients suffering from pneumoconiosis, negatively affects on the function of the respiratory system, which complicates the postoperative period.

The aim. To improve the results of LCE in patients with acute cholecystitis suffering from pneumoconiosis.

Materials and methods. To 49 patients with pneumoconiosis about acute cholecystitis two types of operations were performed: group 1 - laparotomic cholecystectomy

(LtCE) - 26 patients, 2 group - LCE – 23. External respiratory function (ERF); level of saturation (Sa); indices of blood gases (PaCO2 and PaO2) and state of the acid-alkaline balance (pH); endothelial dysfunction markers: endotelein-1 (ET-1) and fibronectin (FN) in the blood plasma; level of intra-abdominal pressure (IAP); degree of endothelium-dependent vasodilation (EDVD) were investigated at 1 and 2 days after surgery.

Results. Level of IAP in group 2 was maximized at 1 day after surgery, and did not change significantly in group 1. On admission in all patients it was noted a moderate decrease of lung vital capacity (LVC) and normal speed parameters of ERF. Volume and speed parameters were within normal limits in patients of group 1. In group 1 parameters of blood gases did not change. In group 2 - Sa rate decreased in 1.16 times; pH shifted towards acidosis; PaCO2 increased in 1.2 times against decrease of PaO2 in 1.3 times. Also in group 2 heart rate increased in 1.4 times, average level of blood pressure - in 1.14 times, and respiratory rate in 1.7 times. In both groups before surgery the average rate of EDVD was 13,5±1,1%, indicated of hypoxia and arterial hypoxemia. In group 1 degree of EDVD was slightly reduced (11,4±1,5%), in group 2 degree of EDVD decreased to 9,7±0,8%. These EDVD indicies were confirmed by increased levels of ET-1 to 8,2±0,28 ng/l and FN to 698,7±16,2 mg/l in group 2, which indicates a significant deterioration of the broncho-pulmonary system. In group 1 level of FN remained practically unchanged (666,7±19,1 mg/l).

Conclusions. 1. In patients with pneumoconiosis with respiratory failure (RF) of III degree to perform LCE about acute cholecystitis is inadvisable because of the high risk of respiratory dysfunction.

2. To improve the results of LCE in this category of patients with RF of I-II degree we must consider the level of ET-1 in blood serum as the level of ET-1<1 ng/l is predictive safe for managing of LCE.

Zheleznikova M.O.

OUR EXPERIENCE IN DIAGNOSTICS AND TREATMENT OF CHRONIC RENAL TRANSPLANT DYSFUNCTION IN PATIENTS WITH CHRONIC KIDNEY DISEASE BASED ON THE STUDY OF POLYOMA VIRUS INFECTION

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Introduction. Kidney transplantation is now an accepted treatment of patients in end-stage kidney disease and widely impleented around the world. Its restores an acceptable quality of life to such patients. However, receiving of immunosupression is the risk factors for infection and cancer of graft recipients. The most consistent risk factor identified across studies is the overall degree of immunosuppression, that leads to low-level of acute transplant rejection. But it is associated with a higher incidence of activation latent viruses. Among them can mark polyoma virus infection (BK virus). Renal damage caused by BK virus comprises progressive tubulointerstitial nephritis and ureteral stenosis. Viral screening to facilitate identification of BK virus reactivation is not conducted. The influence of different immunosuppressive regimens (calcineurin inhibitor, mycophenolate, inhibitor mTOR) on the risk of BK replication post-transplant is discussed.

Material and methods. On the basis of the Department of kidney transplantation of the Kharkiv Regional Nephro-urological Center was examined 21 patients with renal transplant dysfunction within the two years after transplantation. Of these, 13 patients were male and 8 patients were female. The recipients was devided into 3 groups:1- renal transplant recipients which received the combination of cyclosporine A, mTOR inhibitor and steroids(14,3%); 2- recipients which received the combination of tacrolimus, mycophenolate and steroids (47,6%); 3- recipients which received the combination of cyclosporine A, mycophenolate and steroids(38,1%).

To determine the structural and functional changes in the kidney transplantat there were performed : creatinine and urea levels in blood, proteinuria, glomerular filtration rate, ultrasound with doppler. Also was determined concentration of tacrolimus. everolimus and cyclosporine levels in the peripheral blood. The marker of reactivation polyoma virus infection was detection of ‘decoy cells’ in urine cytology.

Results. During the study period polyoma virus infection was detected in 2 patients (9,5%) which

received the combination of tacrolimus, mycophenolate and steroids within the first years after related transplantation. One of these (4.8%) has an ureteral stenosis. This recipients got the conversion of immunosuppression to low dose of cyclosporine A. During 6 months was observed the increase of glomerular filtration rate at 30% ($p \leq 0,05$); creatinine level in blood decreased on 40 % ($p \leq 0,05$); proteinuria level decreased on 55 % ($p \leq 0,05$). In the present study we analyzed the incidence of renal transplant dysfunction based on the study of polyoma virus infection and used optimal stategy to prevent their loss.

Conclusion. The lack of specific targeted therapies has prompted a pre-emptive active surveillance strategy with routine screening intervals post transplantation for polyoma viral replication. Reduction or conversion of immunosuppression remains the mainstay of therapy in patients with polyomavirus –associated renal transplant dysfunction.

Gillies N.P.

MANAGEMENT OF PREMATURE EJACULATION CONCERNED WITH COMPARISONS OF PHARMACEUTICAL AND THERAPEUTIC MANAGEMENT VERSUS SURGICAL INTERVENTION

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Actuality. Although clinical practice shows an apt to employ pharmaceutical and therapeutic modes of management for premature ejaculation especially in Western and Central European countries, a comparison to surgical intervention, more commonly practiced in Ukraine and Russia. Where benefit outweighs risk, adverse effects, sequelae and duration of effectiveness of each mode has been compared.

The aim. The primary objective of this study was to parallel and adverse effects of pharmacological therapy and non-lasting effectiveness of therapeutic (behavioral and technique based) methods of management, compared to surgical intervention – selective neurotomy; of branches dorsal penile nerves.

Materials and Methods. 162 patients with premature ejaculation disorder initially self-managed with pause-squeeze techniques and managed pharmacologically with SSRI dapoxetin (Priligy) 30mg on-demand 1 hour before sexual intercourse. In case simultaneously ED we added phosphodiesterase-5 inhibitors 50mg of Sildenefil. Of the

162 patients with premature ejaculation disorder, 72 reported severe side effects of pharmacological treatment, an additional 25 reported ineffective pharmacological management, of those, 16 still reported ineffectiveness after dosage adjustment. Those with severe side effects of headache, epistaxis and anxiety with loss of libido or no therapeutic effectiveness, even after dosage adjustment, underwent a selective neurotomy by means of selected dorsal penile nerve ligation and resection.

Results. Of the 25 patients reporting ineffective pharmacological management, 9 reported improvement following dosage adjustment. Total of 88 patients underwent a selective neurotomy. Intravaginal Ejaculation Latency Time was 1.5 - 3.5 min (average IELT was 2 min 37 sec). Follow-up time was 3 months. Average IELT after surgery was 7 min 55 sec.

Conclusions. Surgical intervention (selective neyrotomia) is safe, profitable and highly effective method treatment of PE and may prove to be a last resort for traditional treatment and in case of severe side effects and pharmacological ineffectiveness, instead offering a more permanent solution for premature ejaculation.

Zhurba Y. P., Goncharova N.N., Kozhemyaka K.O.

MODERN SURGICAL DECOMPRESSION OF BILIARY TRACT OBSTRUCTIVE JAUNDICE

Research advisor: Krivoruchko I.A., m.d.
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Actuality. Obstruction of bile ducts (BD) is one of the important problems of modern surgery. Gallstone disease (GSD) - the most common cause of it, according to various authors occurs in 8-12% of the population of Ukraine.

The aim. Analysis of the results of treatment in patients with jaundice.

Matherials and methods. Retro - and prospectively analyzed the outcomes of 102 patients with OJ in the last 3 years, men - 38 (37.2%), women - 64 (62.8%) aged 45 to 69 years. In a survey it was found that 26 (25.4%) patients had jaundice caused by cancer processes in hepatobiliary zone: BD benign tumors, pancreatic cancer, cancer of the large duodenal papilla (LDP); Other 76 (74.6%) had non-tumor genesis of OJ (lithio BD obstruction, constrictive papillitis). All patients were examined by generally accepted methods. All patients applied the principle of phased treatment.

Results. At I phase of 26 (25.4%) patients with cancer of the biliary stents were set (8 pieces. French) by endoscopic retrograde prosthetics, including pancreatic cancer - 12 (11.7%), cancer LDP - 6 (5 8%), benign tumors of BD - 8 (7.8%). . In 2 patients with pancreatic cancer and cancer of LDP endoscopic biliary stenting was the final method of palliative treatment BD obstruction due to the presence of distant metastases. Another 24 (23.5%) patients with stages II were performed radical surgery: patients with pancreatic cancer and cancer of the LDP made 6 pancreatoduodenal resections, 18 - made biliodigestive anastomoses. Endoscopic papillosphincterotomy (EPST) and lithoextraction performed in 37 (36.2%) patients with choledocholithiasis, also held EPST 23 (22.5%) patients with stenosing papillitis. In 16 (15.6%) patients with wedging distal choledochal calculus, the inability lithotripsy was used nasobiliary BD drainage. In stage II of adequate treatment after bilary decompression performed 55 laparoscopic cholecystectomy, 19 open cholecystectomy of choledochotomy and external drainage of choledoch. **Conclusions.** Using endoscopic decompression combined with conservative therapy in obstructive jaundice enable most patients to prepare for radical surgery with minimal risk of intra- and postoperative complications. In

some patients with malignant jaundice, these interventions can carry final character due to the prolongation of the primary pathological process.

Zienovieva O.

APPLICATION OF INTRAVITREAL AFLIBERCEPT INJECTIONS FOR DIABETICS WITH MACULAR EDEMA

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Actuality. A new method of treatment of diabetic macular edema (DME) based on the local suppression of vascular endothelial growth factor (VEGF) is widely distributing in clinical practice. The mechanism anti-VEGF therapeutic realizes by several ways: direct binding to VEGF, block the expression of its genes or receptors.

The Aim: To investigate the effectiveness of intravitreal injections of aflibercept ("Eylea") in the treatment of DME in patients with diabetes type II.

Materials and methods: 12 patients with DME were monitored (6 with Pre-proliferative retinopathy, 6 with non-proliferative retinopathy). All patients had type II of insulin dependent diabetes with subcompensation carbohydrate metabolism, age from 57 to 73 years; 7 women and 5 men. The observation period was from 10 September 2015 to 10 March 2016. Ophthalmic examination methods: visometry, ophthalmoscopy, tonometry, biomicroscopy, study with net Amslera, diagnostic with the Amsler grid, auto perimetry, optical coherence tomography (OCT) of retina (macula report) via "Topcon 3D OCT-1000 MK2 (ver3.51)". Visual acuity decreased for all patients where average visual acuity was 0,208. On the grid Amslera relative central scotoma within 15 ° from the point of fixation and central metamorphopsia have been found in all investigations. Indications with the OCT: intraretinal cysts (single and multiple; various sizes; foveal and parafoveal localization), diffuse edema of the retina with an increase in foveal central subfield (FCS) thickness (from 320μm to 780μm). The average (FCS) thickness was 553,3μm. Intravitreal aflibercept injections were carried 2 ml dose once a month and a half. 5 patients were treated with 3 injections of "Eylea", 4 people received 4 injections and other 3 got 2 injections.

Results: all 12 patients have noted increase of average visual acuity to 0,381, decline DME to FCS

thickness 287,8μm , significant reduction and even absence of relative central scotoma.

Conclusions: application of intravitreal aflibercept injection promotes regression of edema, decreases FCS thickness that gradually improves vision diabetes patients.

THERAPY

Abugu Nnadozie Livinus

A REVIEW PAPER ON INTRAUTERINE GROWTH RESTRICTION AND IMPLICATIONS ON THE CARDIOVASCULAR SYSTEM

Department of internal medicine #2, clinical immunology and allergology
Research advisor Titova Anna

Important role in pathogenesis of chronic heart failure (CHF) has a disturbance of vasodilative function of endothelinum, that determinates by level of synthesis and metabolism of nitric oxide (NO). S-nitrosotiol – complex, that made as a result of including NO into dinitrozol complexes of iron with thiol lygands, forming a physiologically oxidation that reflect the intensity of it's synthesis.

Aim of investigation- determination of peculiarities of NO metabolism in patients of elderly age with CHF.

Matherial and methods : 68 patients with ischemic heart disease of age from 60 to 92 were examined. CHF of II functional class (FC) was determinated in 44 (64%), CHF of III FC–in 24 (35%) patients (NYHA). 29% had hypertensive disease (HD), 19% patients diabetes mellitus (DM). Nitrates and nitrites were determinated in serum by method of Griss' diasoreaction with determination of nitric junction. S-nitrosotiol was determinated by fluorimetric method.

Results: there was found a significantly decreasing of S-nitrosotiol level comparing to control group. Comparing level of S-nitrosotiol in groups 60-75 and 75 years, in men and women, depending on presence of HD and DM in anamnesis meanings of this methabolite had no difference. Nitrate level in patients with II and III FC of CHF was significantly less of those in control ($p<0,05$; $p<0,05$). Nitrites level in patients with CHF II FC was lower ($p<0,05$), in CHF III FC – had no difference from normal one. Level of nitrates and nitrites in CHF III FC was significantly higher CHF II FC($p<0,01$; $p<0,05$). At the age of 75 years level of nitrates and nitrites were significantly lower than at the age of 60-75 years ($p<0,05$; $p<0,05$). Indices of NO were significantly higher in patients with HD and DM comparing to patients without HD and DM in anamnesis ($p<0,05$).

Conclusion : Depression of NO metabolites formation testify about decreasing of intensity of NO metabolism and reflects physiologic and pathologic, that caused by CHF, endothelial dysfunction. In CHF III FC, HD and DM in anamnesis were determinated significantly higher rates of nitrites and nitrates. This fact can be related with induction of iNOS with increasing formation of NO what due to CHF can be caused by growing ischemia, due to HD –

increased endothelial disfynction and high blood pressure, due to DM – metabolic disturbances, which connected to dysbalance of pressore and depressor acting of insulin. In such way, changes of vasodilative function in patients of elderly age depends on severity of CHF, age of the patient and presence of polymorbide background.

Abugu Nnadozie Livinus, Etukudo Ime-Obong

NO METABOLISM IN PATIENTS OF ELDERLY AGE WITH CHRONIC HEART FAILURE

Research advisor: Associate Professor Titova Anna
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Kharkiv National Medical Iniversity

Kharkiv, Ukraine

Actuality: Important role in pathogenesis of chronic heart failure (CHF) has a disturbance of vasodilative function of endothelinum, that determinates by level of synthesis and metabolism of nitric oxide (NO). S-nitrosotiol – complex, that made as a result of including NO into dinitrozol complexes of iron with thiol lygands, forming a physiologically oxidation that reflect the intensity of it's synthesis.

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age of 60-75 years (p<0,05; p<0,05). Indices of NO were significantly higher in patients with HD and DM comparing to patients without HD and DM in anamnesis (p<0,05).

Conclusions: Depression of NO metabolites formation testify about decreasing of intensity of NO metabolism and reflects physiologic and pathologic, that caused by CHF, endothelial dysfunction. In CHF III FC, HD and DM in anamnesis were determinated significantly higher rates of nitrites and nitrates. This fact can be related with induction of iNOS with increasing formation of NO what due to CHF can be caused by growing ischemia, due to HD – increased endothelial disfynction and high blood pressure, due to DM – metabolic disturbances, which connected to dysbalance of pressore and depressor acting of insulin. In such way, changes of vasodilative function in patients of elderly age depends on severity of CHF, age of the patient and presence of polymorbide background.

Ahmed Raliat Balogun

INDUCTORS OF ENDOGENOUS INTERFERON IN THERAPY OF ECZEMA

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Actuality. Eczema is one of the most common chronic dermatosis, the incidence of which has been growing steadily. This is primarily due to the complexity and versatility of pathogenic mechanisms, among which great importance is attached to immune disorders.

The aim is to study the effect of inducing endogenous interferon and some immunological parameters on skin areas during eczematous process.

Materials and methods. The study involved 46 patients with chronic eczema (41 males &5 females, from age 22-64 years).18 patients (39.1%) had limited forms of eczema & 21(60.9%) had severe form. Based on the SCORAD index, patients were divided into: those with easy (40 points)-14 patients (30.4%), moderate (40-60 points)-20 patients (43.5%) &severe course (>60 points) -12 patients (26.1%). All patients had thorough examination and were divided into two groups of 23 each. Patients in the control group received basic therapy: antihistamines, sedatives, calcium, vitamins & weak topical steroids. Patients in the study group received amizon 0.25g 3x/day & basic therapy.

Results. Before treatment, all the patients had a decrease in the

content of CD 3 , CD 4 and CD 19-lymphocytes (cellular immunity) and simultaneous decrease in humoral immunity (more profound in patients with severe forms). After treatment, Clinical recovery was seen in 18 patients (78.2%), significant improvement in 5 patients (21.8%) and absence of deterioration in all the patients irrespective of the presenting severity of eczema. Clinical remission was reached in 7-8 days in 4 patients, 9-13 days in 10 patients. For patients in the control group who received only basic therapy, clinical recovery was seen in 14 patients, significant improvement in 8 patients, moderate improvement in 1 patient and absence of deterioration in all patients. For patients in study group clinical remission was achieved in 9-13 days in 5 patients, 14-18 days in 5 patients & 19-22 days in 4 patients. 18 months follow up of the patients showed that average duration of clinical remission in the study group was 10,3+ 0,13 months & in the control group- only 5,1+ 0.28 months.

Conclusion. It should be noted that patients with true chronic eczema showed violations of their immune system. However introduction of amizon with basic therapy lead to the correction of patients' immune system and marked improvement of their health, with no side effects detected. These results showed the feasibility of introducing amizon in the complex therapy of true chronic eczema.

Albashir Ayat, Mohammed Ahmed

MOST PRONOUNCED PSYCHOLOGICAL SYMPTOMS ASSOCIATED WITH IBS

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Actuality. Irritable bowel syndrome (IBS) is a functional disorder affecting the large intestine specifically the colon causing different physiological and psychological symptoms that manifest by influence of external factors including life style, diet, psychological state, and others. Most well-known physiological symptoms are abdominal pain, flatulence, bloating, constipation, diarrhea, or both.

The aim. This thesis is to highlight the most pronounced psychological symptoms associated with IBS in age category from (20-30 years old) as this category are mostly of junior adults whom are exposed to daily life struggles. Most of those who are

under this category are either university students or daily workers.

Material and methods. Researches has been done by using a questionnaire method of collecting information from a group of 60 people under the age category from (20-30 years old), asking about different psychological symptoms manifested in the last 6 months, in which whether they manifest on almost a daily base, manifest sometimes, rarely, or never. whether it is accompanied by a physiological symptoms or that the physiological symptoms are unpredictable.

Results.The results revealed that participants most pronounced psychological symptoms that manifested during the last 6 months were are follow from highest to lowest:

- Stress (40%).
- Mood swings (27.1%).
- Reduced ability to concentrate (13.6%).
- Major changes in eating habits (8.4%).
- Depression (5.6%).
- Being emotional (3.1%).
- Being anxious (1.4%).
- Low energy (0.8%).

Around 70% of patient declared that emotional distress is usually the cause that aggravate the physiological symptoms of IBS making it harder for them to manage and deal with the symptoms, while 30% of patients stated that the physiological symptoms of IBS are unpredictable in most of the time that it can appear at any time while eating in a restaurant or at a social gathering.

Conclusion.the most pronounced psychological symptoms that is associated with Irritable bowel syndrome is stress and it is usually accompanied by physiological symptoms like abdominal pain, and bloating.

The best way to reduce the severity of these symptoms is by changing the life style and avoiding stressful life manners. Diet and exercises can also help in relieving these symptoms in which IBS will no longer be a suffer for the patients.

Alhaad Mustafa Mohamuud, Knigavko A.

SEXUAL REHABILITATION AFTER DIFFERENT TYPES OF URETHOPLASTY

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Actuality. Urethral stricture disease is defined as a narrowing of the urethra between its origination at the bladder and its outlet at the penis tip. Strictures are managed surgically, either by endoscopic incision or open surgical reconstruction, which often involves

a graft to substitute for the diseased urethra. Outcomes of urethral reconstruction surgery have traditionally focused only on urodynamic parameters on the improvement of urination function and ignore negative impaction of posterior effect of surgery on sexual function. Surgical approaches involving the external genitalia have an unmistakable noxious potential in several domains of sexual function. A successful urethral reconstructive procedure leads to rehabilitation of the patient back into a healthy sexual life.

The aim to perform a systematic review of scientific literatures with the aim to evaluate the results regarding the sexual sphere after various types of urethral surgery and to identify impacts of sexual rehabilitation.

Material and methods: Urethral reconstructive surgery is a long-term cure for urethral stricture disease in most patients with success rates in most series greater than 90%. International Index of Erectile Function (IIEF) questionnaire pre-operatively and 6 months post-operatively is useful for evaluating sexual function after urethroplasty. Concerning erectile and ejaculatory dysfunction, potentially injured structures in the course of urethroplasty include several arterial structures, nerve branches and eventually myogenic components. An increasing number of papers report on sexual dysfunction after urethroplasty, although the results are far from uniform, there is a trend for a higher incidence of sexual dysfunction after anastamotic repair (AR) compared to free graft urethroplasty (FGU) for bulbar urethral strictures. Other authors did not find a significant decline in erectile function nor did they find a difference between AR and FGU. Overwhelming majority of studies conducted in the period of 2012-2015 did not find statistically significant degradation of erectile function after urethroplasty compared to baseline.
In order to minimize this potential problem, several authors have proposed some minimally invasive procedures in an attempt to maximally preserve structures involved in ejaculatory mechanics.

Conclusions: AR is associated with a transient decline in erectile and ejaculatory function (EF). This was not observed with FGU. Bulbar urethroplasty is likely to provoke changes in genital sensitivity. Overall, the men did not report a decline in erectile function or sexual drive after surgery however; older men might have a higher incidence of erectile dysfunction after surgery. Although older men might have higher rates of erectile dysfunction after surgery than younger men, however EF probably recovers with time.

Al-Trawneh O.V.

THE THERAPEUTIC STRATEGY IS A COMBINATION WITH ARTERIAL HYPERTENSION AND TYPE 2 DIABETES MELLITUS

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Scientific supervisor: professor Bobronnikova L.R.

Introduction. Arterial hypertension (AH) is often comorbid with associated type 2 diabetes mellitus (T2DM). These patients belong to high cardiovascular risk group and classified by early onset and atherosclerosis progression and cardiovascular complication. In connection therewith, differential correction is an important and promising subject in a therapy of given group of patients.

Aim of the present research is to estimate the effectiveness of the combination therapy of patients with AH comorbid with associated T2DM.

Materials and methods. 42 AH patients of II stage and 2nd phase of T2DM were examined. The average age of the patients was 54,7 ± 5,4 years. The control group (n = 20) was comparable in age and sex. It was studied the carbohydrate metabolism, index HOMA-IR, disturbance in lipid metabolism, oxidative stress index levels of malondialdehyde (MDA) and superoxide dismutase (SOD). The body mass index (BMI) of the patients of group 1– 27,15; group 2 – 29,13.

To depend upon the type of treatment, the patients were divided into groups: the 1st is a group of patients (n = 23) got the basic antihypertensive therapy with ACE inhibitors and selective β - adrenoblocker; the 2nd group (n = 19) received additional lipoic acid treatment (Berlithion) in daily dosage to 600 mkg per day and rosuvastatin 10 mg once per day. The statistical analysis was performed by using Microsoft Excel program, Statistica for Windows.

Results. BMI hadn't veracious distinctions ($p>0,05$) influenced by therapy. The standard therapy for patients of the 1st group hasn't disclosed the material effect the lipid spectrum index of blood serum: low-density lipoprotein cholesterol level falling far short of the target values (4,79±0,34 mmol/l), while the index for patients of the 2nd group was 3,29±0,25 mmol/l, the total cholesterol of blood serum – accordingly was 6,7±0,16 mmol/l and 5,5±0,28 mmol/l (control - 4,74±0,15 mmol/l), triglyceride 1,29±0,64 mmol/l and 1,26±0,87 mmol/l, (control - 1,25±0.52 mmol/l) ($p<0,05$), lipoproteins of high 1,28±0,5 mmol/l and 1,38±0,32 mmol/l. MDA level of blood serum for 2nd group and control was lower as ($p<0,001$), but SOD activity of blood serum was lower in

comparison with control (p<0,001). HOMA-IR index for patients of the 2nd group accordingly was 4,46±0,3 и 3,45±0,5, (p<0,05).

Conclusions. Prescription of lipoic acid medicine and rosuvastatin in daily dosage to 10 mg per day improved the carbohydrate and lipid metabolism indexes, as well as indicators of antioxidant stress, which can significantly reduce the risk of cardiovascular complications in these patients.

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CLINICAL ASPECTS OF THE TREATMENT OF CHARCOT OSTEOARTHROPATHY

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Charcot osteoarthropathy (CO) at a diabetes mellitus is the most threatening complication of syndrome of diabetic foot (SDF), resulting in irreversible disability and, as a result – to the fall-off of quality of life of patients. Today CO is determined as the disease of bones and joints, characterized by pain or by painless destruction of bones and joints of extremities, what be going on on a background loss of sensory innervation.

RESEARCH. From data of open literary sources of electronic base of PubMed to study the modern methods of treatment of diabetic osteoarthropathy.

MATERIALS AND METHODS. The criterion of selection were publications for period 2010-2015, that answered the canons of evidential medicine.

RESEARCH RESULTS. The analysis of modern literary sources showed that curative measures at CO depend on the phase of development (sharp, chronic, phase of complications) and have complex approach. Thus patients require a supervision and treatment at once for a few specialists, including a surgeon not only, and and endocrinology, traumatologist, orthopaedist. Consultation of vascular surgeon is also needed, as as a rule CO is accompanied by violations of circulation of blood.

In a sharp phase treatment is begun with the complete or partial statics and dynamics mechanical unloading of the staggered extremity (orthopaedic shoe and special off-loading insoles; imposition total gipseous longets; the special orthopaedic shoe ,with holding insoles adaptations, limiting motions in a talocrural joint at walking, orthezis) on 8-12 weeks. Roentgenologic control is carried out in 2-3 months, with the purpose of control after cicatrization of breaks and exposure of new deformations of bones.

In a chronic phase treatment is begun with providing of stability of joints (with limitation or complete freezing of motions in them) by means of surgical methods (arthrodezys, eczostozectomy, the plastic arts of the Achilles tendon, reconstructive operations on a bone-ligamentary vehicle feet). Also reduce statics and dynamics pressure on the different areas of sole part of foot (with the purpose of prophylaxis of on ulcerogenezis a foot) by means of the special orthopaedic shoe with insoles. Podotherape treatment feet and podiatric care of foot in a cabinet the "Diabetic foot" plays one of leading roles the prophylaxis of ulcerogenezis on a foot. No less important is educating patiens to the podiatric care of foot. If necessary use preparations influencing on metabolism of bone fabric.

At presence of complications originally optimize the flow of diabets. It is further correct to conduct local treatment (treatment of wound, antibacterial therapy, aseptic bandage) with the use of system antibacterial therapy and unloading of the staggered area of foot.

CONCLUSIONS. The analysis of literary data showed that CO is the most heavy pathology developing at SDF. Complication of treatment consists in many-sided nature pathogeny resulting in involving of practically structural all of the tools of foot with the loss of basic functions. For treatment CO is used the complex approach sent to the prophylaxis of complications first of all. The important stage of treatment is the mechanical statics and dynamics unloading of foot. No less important is educating of patient to the podiatric care of foot.

Berezhniy H.G., Shaposhuk V.

MORPHOFUNCTIONAL STATE OF HEART AND CAROTID ARTERIES IN MALES AGED 18-25 YEARS WITH DOCUMENTED HIGH BLOOD PRESSURE

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Actuality. The results of epidemiological studies suggest, that the incidence of the disease among young people from 5 to 14 %. In the NHANES study (1999-2006 yr.), which included 2,587 of young people aged 20-45 years, two-thirds of the participants had at least 1 risk factor for cardiovascular disease. According to a meta-analysis (2013) cohort studies, which included 5785 participants aged 20-38 years, which have been studied indicators of ideal cardiovascular health and their

relationship with intima-media thickness of the carotid arteries, confirmed that the ideal cardiovascular health found only 1% of young adults.

The aim of the study was to investigate the structural and functional state of heart and carotid arteries in males aged 18-25 years with different levels of blood pressure (BP).

Materials and methods. A total of 120 males aged 18-25 years (mean age 23,5 ± 0,34 years) with documented high BP were included. Exclusion criteria were: secondary forms of hypertension, professional athletes treated with antihypertensive drugs less than 3 months before the study. The control group consisted of 20 healthy males. Clinical measurement of blood pressure, ambulatory blood pressure monitoring, Doppler echocardiography to estimate left ventricular (LV) diastolic function, ultrasonography of the brachiocephalic arteries were performed.

Results. In the studied group of males aged 18-25 years there was a high prevalence of such risk factors as: smoking (56.6%), dyslipidemia (20.8%), abdominal obesity (18.3%). Wherein 1 risk factor was detected in 31.6% of surveyed, 2 risk factors in 28.3%, and 3 or more in 21.6%. Criteria for metabolic syndrome were found in 15% of patients (pts). Clinically stable hypertension was defined in 81.7% of cases. Increase in clinical BP of I degree had 79,6% of surveyed, II - 18.4% and III - 2,0%. It was noted that the frequency of normotonic males was 16,6%, 57,5% had hypertension, unstable hypertension – 25,9%. Hypertension in 59,2% of cases was expressed by isolated systolic hypertension, and systolic-diastolic hypertension in 40,8%. Pts with isolated clinical hypertension (ICH) and hypertension had significantly higher values of interventricular septum thickness (by 16,7%, $p<0,05$ and 22,2%, $p<0,01$), LV walls thickness (by 11,2%, $p<0,05$ and 20,2%, $p<0,01$), LV mass index (by 16,9%, $p<0,05$ and 26,8%, $p<0,01$), and the relative wall thickness (by 16,7%, $p<0,05$ and 26,9%, $p<0,01$) compared to controls. Concentric LV remodeling was found in 25.8% of pts with ICH, and in 59.4% of pts with hypertension. Concentric LV hypertrophy was detected in 4,3% of pts with hypertension. In pts with ICH and hypertension the E/A ratio was 9,6% ($p<0,05$) and 18.2% ($p<0,05$) lower than in the control group. In this case, the differences were due to the higher values of wave A in hypertension. The values of intima-media thickness (IMT) were within the normal range (0.9 mm). At the same time early wall thickening of blood vessels was found. With an increase in BP there was a significant ($p<0,05$) increase in the IMT by 13.3% and 20% in pts with ICH and hypertension, respectively. This corresponded to impaired arterial elastic properties, as evidenced by a reduced

distensibility coefficient (DC) (by 33,3%, p>0,05 and 41,7%, p<0,05) and the elastic modulus (by 13,9% p> 0.05 and 30,5%, p<0,05) increase in the Young's modulus (by 16,7%, p> 0,05, and 26,2%, p<0,05) and the Peterson's modulus (by 8,3%, p>0,05, and 41,6%, p<0,05) of the common carotid artery compared with the control group.

Conclusions. 1. In a population of male aged 18-25 years with a history of hypertension the main risk factors are: smoking, abdominal obesity and dyslipidemia. 2. Young hypertensive males have LV remodeling and impaired diastolic function, as well as increased carotid IMT and arterial wall stiffening.

Borovyk K.N., Saiika A.I.

THE FEATURES OF THE QUALITY OF LIFE IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION AND CONCOMITANT OBESITY

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Actuality: Acute myocardial infarction (AMI) is one of the most dangerous forms of ischemic heart disease. The risk of AMI increases dramatically in patients with concomitant obesity. The research of the quality of life is a complex medical and social problem of the modern health care system.

The aim of our research was to study the quality of life in patients with acute myocardial infarction depending on the presence or absence of concomitant obesity using the SF-36 questionnaire.

Materials and methods. The study included 60 patients with AMI. The first group consisted of 35 patients with concomitant obesity, the second - 24 patients with normal body weight. Patients in both groups were comparable in age. The quality of life assessment was conducted by a non-specific questionnaire «SF-36 Health Status Survey». Statistical data processing was carried out using «Statistica 8.0» statistical software package, «Microsoft Office Excel».

Results. The analysis of the data showed the significant reduction of points for the role functioning parameters (RP) by 75.3%, vitality (VT) - by 48.3%, and role-emotional (RE) functioning - by 64.1% in patients with acute myocardial infarction with the concomitant obesity compared with the non-obese patients. These results confirm the inverse correlation between body mass index of the

patients and the above parameters of the quality of life (p <0,05).

Conclusions. The presence of obesity is associated with a significant decreasing of the quality of life level in patients with acute myocardial infarction compared with patients who have normal body weight taking into account physical and psycho-emotional components of health.

Butova Ievgeniia

STATINS APLICATION FOR THE TREATMENT OF PATIENTS WITH ARTERIAL HYPERTENSION AND DIABETES MELLITUS TYPE 2

Research advisor: Prof. Bobronnikova Lesya
Clinical pharmacology department
Kharkiv National Medical University

Actuality. A combination of arterial hypertension (AH) and diabetes mellitus (DM) type 2 is an especially serious problem, which is related to the earlier development of target organ damage and subsequent cardiovascular events.

The aim. To evaluate an efficacy of metformin and atorvastatin in patients with AH and DM type 2.

Materials and methods. In our research took part 64 patients (30 men and 34 women) with DM compensated type 2 in combination with AH stage II and 2 degrees. The average age of the patients was 54,5 ± 4,5 years. The control group was 20 healthy individuals. There were evaluated anthropometric indicators, index HOMA-IR, examined carbohydrate and lipid metabolism, circulating adiponectin concentrations in blood's plazma, the echocardiography and ultrasound of common carotid arteries with measurement of the thickness of the intima-media complex of the common carotid artery (IMC CCA)

Results. At the end of 12 weeks of treatment, including a personalized diet, physical exercises, atorvastatin 20 mg/day and metformin 1000-2000 mg/day, it was revealed decrease of HOMA-IR level by 4.5% (p <0.05), glycosylated hemoglobin 16.44% (p <0.001), fasting plasma glucose by 13.9% (p <0.001). Total cholesterol decreased by 2.9%, triglycerides by 11%, HDL content increased by 20.9%, LDL decreased by 12,8% (p <0,001). Body weight decreased by 2.38%, BMI by 1.6%, waist circumference by 1.17% (p <0.05). The level of adiponectin decreased by 1,5 times (p<0,05). IMC CCA decreased by 33% (p <0.01). It was observed a decrease

of systolic and diastolic pressure by 14.5% - 13.7% (p <0.01).

Conclusions. 12-week therapy in patients with AH and DM type 2 with atorvastatin 20 mg/day and metformin in a dose of 1000-2000 mg/day can improve the carbohydrate profile, insulin resistance, lipid metabolism, adiponectin's level, the thickness of the wall of the carotid arteries. There was observed a decrease of body weight, which helps to reduce a blood pressure level and improve a diastolic myocardial function.

Chekhovskoy A.O.

EARLY MARKERS OF ATHEROSCLEROSIS MANIFESTATION IN PATIENTS WITH NONALCOHOLIC FATTY LIVER DISEASE

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Actuality: Nonalcoholic fatty liver disease (NAFLD) is an important factor in the development of atherosclerosis. It's proved that NAFLD promotes the development of atherosclerosis, even in category of people with a lack of signs of metabolic syndrome, which makes it necessary to develop effective diagnostic measures for the early detection of atherosclerosis in these patients.

The aim: to reveal the markers for determining the pre-clinical manifestation of atherosclerosis in patients with NAFLD.

Materials and Methods: The research involved 70 patients with NAFLD at the age of 31-57 years. The control group consisted of 30 almost healthy individuals. Conducted a study of anthropometric parameters, carbohydrate metabolism, lipid metabolism. The thickness of the intima-media complex (IMT) of the common carotid artery was determined by duplex ultrasonography, B–mode. As standards were used IMT values of less than 0.9 mm.

Results: The patients ranged in BMI from 21.5 to 32.4 kg/m^2, the average value in the group of patients with NAFLD-26,1±0,9 kg/m^2, in the control group - 23,7±0 8 kg/m^2. Waist circumference in patients with NAFLD averaged in interval 95,0±3,1 cm and was significantly increased compared with the control group-79,3±2,2 cm. Hip girth did not differ in groups.

During the study of carbohydrate metabolism has been found the increase of HOMA-IR index in the main group (5,8±2,39), control group-2,2±0,54. Insulin concentration was (19,6±2,8) mU/ml in the study group compared to the (4,1±0,9) mU/ml in the control

group (p<0,01). Fasting glucose levels were not significantly different between the groups, and was respectively (6,3±1,2) and (5,6±0,9) mmol/L.

During the study of lipid metabolism in patients with NAFLD was identified proatherogenic serum lipid profile. There was a significant increase in the levels of total cholesterol-6,3±0,8 mmol, TG-2,7±1,4 mmol/l, LDL-to 3,7±0,2 mmol/l versus the control group. The levels of the HDL-1,80±0,16 mmol/L in the study group were significantly lower than in healthy individuals. In the group of patients with NAFLD increase in IMT over 0.9 mm were detected in 33(47.1%) persons, whereas only 2 (6.6 %) in the control group.

Conclusions: In patients with NAFLD revealed violations of carbohydrate and lipid metabolism: insulin resistance, increased concentrations of pro-atherogenic lipid fractions;

Patients with NAFLD are at high risk of early atherosclerosis developing, which is confirmed by the increase IMT of the common carotid artery;

Changes in IMT of the carotid arteries are identified for asymptomatic patients without a history of coronary artery disease clinical manifestations;

Ultrasound measurement of IMT can be recommended for early detection of atherosclerosis in patients with NAFLD .

S.V.Demianiuk, O.A.Viltsaniuk, I.M.Koval

DIAGNOSTIC OF THE LIVER FIBROSIS SEVERITY IN PATIENTS WITH CHRONIC DIFFUSE LIVER DISEASES ACCORDING TO ELASTOMERY RESULTS

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Vinnitsa National Medical University named after M. I. Pirogov

Introduction. The problem of diagnostics of complications that develop against the background of the experience of the liver parenchyma remains one of the topical problems of modern medicine. Despite modern medical advances, the number of cases of complicated liver parenchyma diseases in the world continues to grow and is accompanied by a high mortality rate (Don C. Rockey, 2009). Assessment of severity of liver fibrosis using elastometry allows us to determine the degree of liver fibrosis, which is a basic indicator of severity criterion and prognosis of liver diseases (Hagan.With., Isakov V. A., 2010, Didenko V. I., 2013).

Aim: to determine the severity of changes and the degree of fibrosis of the liver parenchyma in patients with different pathologies of the liver

parenchyma according to the results of elastomery.

Materials and methods: we analyzed 476 elastometry results, which were performed on the basis of the Military medical clinical center of the Central region in Vinnitsa during 2013-2015. Among the examined patients there were 240 men (50.5%), women – 236 (49.5 %). The average age of patients was 42.5±14.3 years.

Results of research: It was found that among the 476 patients: patients with chronic viral hepatitis C – 291 people (50,8%), chronic viral hepatitis B – 82 people (21.8%), hepatitis of unknown etiology – 64 people (6,38%), cirrhosis – 27 (4.5 %), and their combinations – in 6 cases, which amounted to 1.1%. In the analysis of the average age of patients with the most widespread pathology of the liver parenchyma was found that the average age of patients with chronic hepatitis B is 37.3±13,7 years, with chronic hepatitis C is 38.2±12,6 years, in patients with hepatitis of unknown etiology - 44,4±13,6 years, in patients with cirrhosis - 54,7±13,8. As the viral hepatitis C and B are the most common diagnoses was decided to analyzed elastomery results in these groups of patients. Using a METAVIR score of fibrosis stages in patients with viral hepatitis C it was established that: 96 people had a 0 stage fibrosis, 1 stage – 70 people, 2 stage – 43 people, 3 stage - 24, 4 stage – 23, clinical cirrhosis – 15 people, it was noninformative in 20 people. According to the METAVIR score for fibrosis stages in patients with viral hepatitis B it was established that : 2 people had 0 stage fibrosis, 1 stage – 3, 2 stage – 5 people, 3 stage - 21, 4 stage – 28, clinical cirrhosis – 16, noninformative in 7 people.

Conclusion :Considering the obtained data, it can be argued that this method is highly informative for diagnosis of stages of hepatic fibrosis, as well as it is safe for medical staff and does not require additional costs for handling tools and equipment.

T. M.Pryadka, S.R. Dutchak

STATUS OF OXYGENATION AND VENTILATION IN PATIENTS WITH OBSTRUCTIVE SLEEP APNEA HYPOPNEA SYNDROME

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Background. Obstructive sleep apnea (OSA) - a potentially life threatening condition that is marked by numerous episodes of shortness of breath during sleep, in which blood oxygenation indexes are

reduced. Negative cardiovascular effects - fibrillation, bradycardia, hypertension, and hypertensive crises are also observed. The most serious results of OSA are stroke, myocardial infarction, ventricular fibrillation and death in sleep. The key markers in the diagnosis of OSA are a disorder of oxygenation, respiratory function and sleep fragmentation.

The purpose and objectives of the study was to study the changes of oxygenation and ventilation in patients with OSA during the "diagnostic" and "therapeutic" night.

Materials and methods. The study included 15 patients who had a clear medical history and clinical signs of OSA without obvious mechanical impediment in breathing through the natural breathing airways. During the "diagnostic" and "therapeutic" nights the indicator of blood saturation (SpO2,%), carbon dioxide in the final portion of the exhaled air (PetCO2, mm Hg), the number of obstructive events per hour (oRDI), and minimum and maximum heart rate (HR) were monitored with the use of "Somno Chek" (Weinmann, Germany)

The obtained results. It was established that during the "diagnostic" night averages of SpO2,in breathing with an atmospheric air (FiO2 = 0,21) were to 87.5 ± 4.6%, and the minimum 47.8 ± 3.1%; averages of PetCO2 – 43.8 ± 2.6 mm Hg, and maximum 58.2 ± 3.4 mm Hg; the average number of oRDI -19.8 ± 1.1 / h., and the maximum 66.8 ± 3.5 / h .; Maximum heart rate was 142.6 ± 4.9 beats / min., and the minimum- 44.5 ± 2.3 beats / min. These indexes show the pronounced obstructive respiratory disorders, which require treatment. During night "therapy", in which patients were performed the non-invasive (mask) respiratory support in continuous positive airway pressure (CPAP) respirator «Somno balance Auto» (Weinmann, Germany), SpO2 averages were 94.2 ± 1.8%, and the minimum - 88.3 ± 4.9%; averages of PetCO2 – 39.6 ± 2.6 mm Hg, and maximum - 43.2 ± 1.6 mm Hg; average number of oRDI – 4.7 ± 0.3 / h. and max- 5.3 ± 0.2 / h .; maximum heart rate was 87.8 ± 3.2 beats / min., and the minimum – 54.5 ± 3.2 beats / min. The obtained data show an adequate treatment of OSA with the use of noninvasive mask OSA -therapy and full normalization of oxygen status and respiratory function.

Conclusions. Obstructive sleep apnea rapidly destabilizes the oxygen status of the body and the alveolar ventilation. Adequately adjusted CPAP-therapy eliminates life-threatening respiratory disorders and minimizes the cardiovascular and respiratory risks and the fragmentation of a nocturnal sleep.

Dziuba V., Bursak A.

BURNOUT SYNDROME AND ITS CONNECTION WITH HIGH BLOOD PRESSURE

Research advisor: Safargalina-Kornilova N.A., Assistant professor Department of Fundamentals of Internal Medicine N1, Fundamentals of Bioethics and Biosafety, Kharkiv National Medical Iniversity, Kharkiv, Ukraine

Relevance. Intensive social, economic and cultural development of modern society greatly increases the requirements for students. This group of people faced with the need to control emotional states that cause the problem of finding the most effective ways of emotional regulation and self-regulation of students in stressful situations. Emotional "burnout" has a negative influence on student health, which may lead to serious consequences in the future. Therefore, the study of emotional burnout, features of manifestations of this syndrome, its symptoms and clarify the factors that lead to its formation becomes relevant.

Students with emotional burnout may develop high blood pressure. Its origin is connected with the violation of the regulation of cortical and subcortical vasomotor system and hormonal mechanisms of blood pressure control. The reason for all this is a strong stress psycho-emotional state of students. Long periods of high blood pressure lead to violations of hemodynamics, which can lead to strokes, heart attacks.

The object of research. The syndrome of burnout and its connection with high blood pressure.

Materials and methods. Anonymous survey of 200 students of 3 course by questionnaire of Boyko, questions to determine the level of professional self-determination and achievement and blood pressure monitoring, statistical data processing.

Results of research. Analysis of the results showed that the major symptoms, determining the development of burnout among students are improper emotional response (66,2%), reduction of professional duties (44,5%), anxiety and depression (35%), experiencing stressful circumstances (39,4%). In resistance phase is 42,3% of interviewed students, in the voltage phase 15,4%, in exhaustion phase 27,8%, no signs of burnout and stress showed 14,5% of students. Analysis of the development of burnout syndrome, depending on the achievements showed a high level of burnout among the excellent students (resistance phase 45,3% and exhaustion phase 25,6%)and among students, who receives bad grades (46,3% and 42%) compared

to students, who studies well (34,6% and 20%). Analysis of blood pressure monitoring results showed that excellent students, and those, who get bad grades have increased blood pressure. Students who are in the phase of voltage and resistance phase have high blood pressure.

Conclusions. Students are exposed to stressful psycho-emotional state, which subsequently leads to burnout. One of the manifestations of this syndrome is high blood preassure, the appearance of which is associated with the violation of the regulation of cortical and subcortical vasomotor system and hormonal mechanisms of blood pressure control.

Fomina L.V.

CELLULAR AND HUMORAL IMMUMITY IN PATIENTS WITH ECZEMA

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Actuality. Proved the role of immunological disorders in the levels of initial pathogenesis of eczema. This is manifested primarily cell immunocompromised for T-system of immunity.

The aim. Improved treatment of patients with eczema allowing for the cellular and humoral immunity.

Materials and methods It is planned to survey 50 patients with different forms of eczema, while will be a comprehensive clinical examination on the basis of complaints (skin lesions, swelling, itching), data history (history of the disease, family history, detection of genetic predisposition), genetic and constitutional characteristics of the patient: ob` subjective (inspection, palpation) and additional (laboratory, allergic tests, immunogram) methods. All patients will receive basic treatment, according to the standard treatment of eczema, hyposensitization therapy, antihistamines, sedatives, glucocorticosteroid drugs, vasoactive drugs immunocorrectors.

Results. To assess the state level cell immune response in microbial eczema was investigated in peripheral blood content of the total T lymphocytes (CD3), T helper (CD4), -supresoriv (CD8), B - lymphocytes (CD 19) in 30 patients suffering from the disease, and 15 healthy donors. The average content of CD3 -lymfotsytiv blood donors was 42,2 ± 0,2%, CD4 - 39,2 ± 1,86%, CD8 - 29,0 ± 0,87%.

Conclusion. The practical significance of the research is

grounded in scientific efficacy of adjuvant therapy for eczema using immunomodulators. This therapy helps accelerate the regression of clinical manifestations of disease due immunomodulators normalizing effect on cellular and humoral immunity. The use of immunomodulators can to prevent a recurrence of eczema.

Kadykova O., Sheikh Saher

THE RELATIONSHIP BETWEEN ANTHROPOMETRIC AND LIPID PARAMETERS IN PATIENTS WITH ISCHEMIC HEART DISEASE AND OBESITY DEPENDING ON THE GENOTYPE GENE POLYMORPHISM OF ENDOTHELIAL NITRIC OXIDE SYNTHASE (Glu298Asp)

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Actuality. A variety of studies have suggested that the polymorphism in the endothelial nitric oxide synthase was associated with ischemic heart disease.

Aim. The purpose of research – to examine the state of lipid metabolism and constitutional parameters in patients with ischemic heart disease and obesity, depending on the genotype polymorphism of endothelial nitric oxide synthase (Glu298Asp).

Matherials and methods. There have been a comprehensive survey 222 patients with ischemic heart disease. Comparison group consisted of 115 patients with ischemic heart disease with normal body weight. The control group included 35 healthy individuals. All patients underwent general clinical and instrumental examination. Echocardiographic studies were performed by the standard method for H. Feigenbaum ultrasound devices RADMIR. The statistical processing of results was performed with the help of software package «Statistika» (StaSoftInc, USA).

Results. We have not been established relationship between volume of neck waist, hips, levels of total cholesterol, triglycerides, low density lipoprotein cholesterol, high and very low density cholesterol and genotype polymorphism of the gene eNOS (Glu298Asp) in patients with ischemic heart disease and obesity.

Conclusions. We have not been established relationship between anthropometric parameters and genotype polymorphism of the gene eNOS (Glu298Asp) in patients with ischemic heart disease and obesity and not found associations with metabolic lipids.

Kaluzhka V., Markevych M.

HORMONAL AND METABOLIC DISORDERS IN PATIENTS WITH NONALCOHOLIC FATTY LIVER DISEASE AND TYPE 2 DIABETES

Research advisor: Zhuravlyova L.
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Actuality. The basis of the pathogenesis of nonalcoholic fatty liver disease (NAFLD) is insulinresistance (IR), which appears in the background of abdominal obesity (AO), which in turn is a key factor in the origin of an imbalance between adipocytokines that entail disturbances of lipid and carbohydrate metabolism, which ultimately leads to damage of liver cells, development of inflammation, fibrosis and apoptosis.

The aim was to study the peculiarities of changes of adiponectin (AN) level depending on the functional liver parameters and index of IR in patients with NAFLD and diabetes mellitus (DM) type 2 and AO.

Materials and Methods. 25 patients (10 men and 15 women) with NAFLD and DM type 2 (HbA1c <7,5%) were examined. Control group consisted of 12 almost healthy persons. Clinical investigation included estimation of antropometric parameters (body mass index (BMI) and waist circumference (WC)), functional liver parameters (ALT, AST) and index HOMA-IR.

Results. Changes of BMI were noticed in 94,5% of patients: 54,6% had 1st degree of obesity, 31,4% - 2nd degree obesity and 4,6% suffered from 3d degree of obesity. Level of AN was decreased comparing to the control (8,7±2,4 ng/ml vs 15,4±2,1 ng/ml, $p<0,05$) and correlated with the degree of obesity - 6,5±2,1 ng/ml in patient wit 3d degree obesity ($p<0,05$). Negative correlation relashionships were determined between the levels of AN and BMI ($r=-0,36$; $p<0,01$), WC ($r=-0,34$; $p<0,05$). The level of AN was authentically getting lower as the level of ALT ($r=-0,44$; $p <0,001$) and AST ($r=-0,46$; $p<0,001$) became higher. The negative correlation is found between the level of AN and index HOMA-IR ($r=-0,46$; $p<0,001$).

Conclusions.
Hypoadiponectinemia in patients with NAFLD and DM type 2 is associated with AO, worsening of functional liver parameters and progression of IR, which leads to continuous formation of metabolic disorders in liver.

Kashtan Kateryna

THE STUDY OF PHYSICAL ACTIVITY OF CHILDREN WITH TYPE 1 DIABETES USING QUESTIONNAIRE

Research advisor: Assistant Morozov Oleksandr
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Actuality: Currently, the question of the development of safe and reliable methods for assessing the level of physical activity (PA) of children is topical. As the gold standard an accelerometer is often used. Due to the high cost and difficulty in applying some groups of patients (children, emotional and hyperactive patients) it isn't always possible to use it. One of a simple and effective indicator of PA assessment is a method of questioning. It has a number of advantages over an accelerometer, such as fast data acquisition, efficiency, convenience and low cost.

Aim of our study, the assessment of physical activity of children with type 1 diabetes, using questionnaire.

Materials and methods. During the performance examination of 25 children aged 7-18 years with various duration of type 1 diabetes. It was conducted to determine the level of compensation of carbohydrate metabolism (glycated hemoglobin – HbA1c) and also conducting the questionnaire and identification of patients PA level with using questionary The Physical Activity Questionnaire for Older Children and Adolescents (PAQ-C and PAQ-A). Physical activity was assessed for 7 days. By PA level patients were divided into age groups: 1 group – 7-10 years (n = 7), 2 group – 11-14 years old (n = 12), group 3 – 15-18 years (n = 6). Statistical analysis was performed using Excel applications.

Results. It was found that with increasing duration of the substantial difference in the level of the disease were observed PA (fluctuations ranged from (3,38 ± 1,06) points) to ((4,0 ± 0,3) points). Thus the tendency to decrease with increasing level of PA age ((3,2 ± 0,6) points) in comparison to the children groups 1 and 2 ((4,0 ± 0,3) points) and ((4,2 ± 0,5) points). It is accompanied by a deterioration of metabolic control in adolescents (HbA1 (10,3 ± 0,3)%) compared with children of group 1 (HbA1 (8,0 ± 0,7)%). In group 2 in children aged 10-14 years the level of compensation of carbohydrate metabolism was unsatisfactory (HbA1 (11,3 ± 0,1)%), although it was not accompanied by a decrease in PA.

Conclusions. Thus, children with type 1 diabetes there is a

decrease of PA with age, which is accompanied by an insufficient compensation of disease among teenagers of 15-18 years, but not in the early pubertal age.

Kopanska Dzw., Borachok T.

ESOPHAGITIS: REALITY TODAY, PRACTICE PATTERNS AND RESULTS

Research advisor: Yatskevych O., PhD, Associate Professor
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Actuality. Gastroesophageal reflux disease (GERD) is a chronic disease which causes esophagitis, Barrett's esophagus (BE) and esophageal cancer. Esophagitis is one of the most prevalent diseases in the Ukraine ,with up to 16% of the adult population affected by daily symptoms.

The aim. Our objectives were to understand the practice patterns in the management of patients with esophagitis, characterize patients with esophagitis who presented to Lviv Regional Hospital (LRH) for endoscopy, and to evaluate short-term outcomes in these patients.

Materials and methods. We identified patients with an endoscopic diagnosis of esophagitis, who presented to LRH for upper endoscopy for any indication between February 5st and October 28st 2015. After exclusion criteria were considered a total of 96 patients were identified for the study. Laboratory and pathology data were reviewed for initial and follow up endoscopy. Demographics, severity of esophagitis, length of BE, follow-up recommendations, and outcomes were recorded.

Results. Of the 96 patients involved in the study, 7 had suspected BE on EGD. Among those patients with suspected BE, 4 had a follow up EGD, none of which showed severe esophagitis. Although 23 of the 96 patients (23%) had esophageal biopsies, only 2 had tissue pathology confirming Barrett's esophagus.

Conclusion. Our data demonstrates, among other findings, that we are not optimizing acid suppression use in disease processes that are acid mediated. More research and development of standardized protocols to guide care for patients with esophagitis and help decrease endoscopy costs are warranted.

Koteliukh M.Y., Martovytskyi D.V.

THE STUDY OF DYNAMICS OF MATRIX METALLOPROTEINASE-13 AND TENASCIN C IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION AND TYPE 2 DIABETES

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Actuality. Today, the cardiovascular diseases are the actual problem worldwide. It is known that matrix metalloproteinases (MMP) and tenascin C are considered as prognostic markers of the heart diseases.

Aim. Study the role of matrix metalloproteinase-13 and tenascin C in patients with acute myocardial infarction and type 2 diabetes.

Matherials 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 concomitant type 2 diabetes mellitus (DM); the comparison group - 40 patients with AMI absence of type 2 diabetes; control group - 20 people. The matrix metalloproteinase-13 (MMP-13) was determined by ELISA using set of reagent «Human MMP-13» (RayBiotech, Norcross, USA); tenascin C (Tn C) - «Human Tenascin-C Large (FNIII-C)» (Immuno-Biological Laboratories Co. Ltd. (IBL), Takasaki-Shi, Japan).

Results. 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 ($p<0,05$). The content of MMP-13 for 10-14 days significantly increased in patients with AMI and type 2 DM by 17% compared with patients with AMI without type 2 DM ($p=0.0316$). Discovered reduce Tn C in patients with AMI and type 2 DM by 39% ($p=0.0001$) compared with patients with AMI without type 2 diabetes.

Conclusions. Hence, in patients with acute myocardial infarction and type 2 diabetes more likely determined by hyperproduction MMP-13 compared with AMI patients without type 2 diabetes, which may be due to the effects of hyperglycemia. The decrease in dynamic content tenascin C in patients with acute

myocardial infarction in the presence of type 2 diabetes indicates on the disbalance in the system extracellular matrix.

Kotvitskaya Valeria

ENDOTHELIAL DYSFUNCTION BIOMARKERS IN OBESE PATIENTS WITH ARTERIAL HYPERTENSION

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Actuality: obesity is strongly associated with arterial hypertension and cardiovascular disease. Endothelial dysfunction in obese patients plays a pivotal role in the development of hypertension.

Aim: estimation of endothelial dysfunction on the basis of endothelial and inducible synthases activity and nebivolol's impact on the endothelial function in obese patients with arterial hypertension.

Materials and methods: 25 previously untreated hypertensive patients (males/females 7/8; mean age 52.6±0.95 years) were enrolled in this study. We excluded patients with heart failure III NYHA functional class, and with lungs, liver and/or kidney disorders, which influenced nitric oxide production. Plasma Nitric oxide synthases (eNOS, iNOS) levels were examined by biochemical method. S-nitrozotiol level was measured by biochemical method as oxidative stress marker. Differences between the groups were calculated by Student's t-test. Spirmen's correlation coefficient was used to compare pairs of variable and $p<0.05$ was regarded as significant. 5-10 mg nebivolol treatment was provided during 6 weeks.

Results: body mass index - 31,33±4,10 kg/m2,in control - 23,08±1,53 kg/m2. Systolic arterial pressure (SAP) - 171,4±10,3, diastolic (DAP) - 101,7±8,5 мм. рт. ст.before treatment. SAP and DAP after treatment - 135±6,1 and 88,3±6,9 respectively. NO2 was changed from 12,11±6,21 till 14,21±2,42 mcmole/l. NO3 increased after treatment from 19,12±6,74 till 22,67±3,21 mcmole/l, . p<0,05/ As it shown 5-10 mg nebivolol therapy improve endothelial function by increasing of e-NOS activity from 0,731±0,113 till 0,762±0,069 pcmole/min*mg protein, decreasing of iNOS from 0,589±0,116 till 0,232±0,108 pcmole/min*mg protein and as antioxidant action promote declining of S-nitrosotiol levels 0,45±0,19 till

0,33±0,16 mmole/l as markers ofoxidative stress.

Conclusion: e-NOS and i-NOS levels could be used as biomarkers of endothelial dysfunction and also could be used as treatment effectiveness markers. The results suggest that nebivolol improves endothelial function in obese hypertensive patients by stimulating nitric oxide synthesis and its antioxidant ability, can be recommended for long duration treatment as monotherapy.

O. P. Kozlov, S. G. Malanchuk, O. G. Sorokina, A. O. Radchenko

IMPACT OF VIOLET, GREEN AND ORANGE SPECTRA LED RADIATION ON LECITHINASE AND DNASE ACTIVITY OF S. AUREUS AND E. COLI

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Relevance. S. aureus and E. coli are the most common types of gram-positive and gram-negative bacteria, respectively, which cause inflammatory processes. An extracellular enzyme system of the bacteria that inhibit macroorganism protective factors or increase the aggressiveness of the microorganism play an important role in the development of these conditions. These enzymes are lecithinase and DNase. Today, the question of theoretical and experimental justification of the interaction mechanism of LED radiation with enzyme activity is rather relevant and insufficiently studied.

Aim. to estimate the impact of violet, green and orange spectra LED radiation on enzyme activity of S. aureus and E. coli.

Materials and methods of the research. Subject of the study were the reference microorganisms strains of S. aureus, E. coli, obtained from the L. V. Gromashevsky Institute of Epidemiology and Infectious Diseases of NAMS of Ukraine, and clinical strains removed from peripheral venous catheter, drainage structures, catheters and from clinical material from infected children with inflammatory processes that were in Public Healthcare Institution "Kharkiv Regional Children Clinical Hospital № 1"; electromagnetic radiation in the orange (590 - 600 nm), green (490-570 nm) and violet (380 - 430 nm) spectra optical range. We used bacteriological methods. Determination of DNase activity was carried by Jeffries CD method. In order to determine lecithinase activity agar Hotynhera followed by measuring the diameter of the corolla around the colony was used.

Results. When studying the enzymatic profile of strains it was found that the lecithinase and DNase activity output after exposure to violet spectrum LED radiation tends to decrease at 6^{00} and at 18^{00},

moreover high level of activity was not recorded during the day in any strain compared with controls: at 6^{00} were inactive by the ability to produce enzymes DNase and lecithinase 85.7% of S. aureus strains and 80.9% of E. coli strains, at 18^{00} - 90.4% of S. aureus strains, 85.7% of E. coli strains. In S. aureus were found high photoacceptor properties to green spectrum, which may be associated with the formation of pigment by S. aureus. At 12^{00} average activity of all S. aureus strains and 47.6% of E. coli isolates were observed under the influence of the green spectrum LED radiation, at 21^{00} - 95.2% of S. aureus strains and 57.1% of E. coli isolates. At 6^{00} and at 18^{00} lecithinase activity of E. coli strains tended to decrease (19.1% - average active and 33.3% slightly active and 47.6% - inactive microorganisms strains and 19.1% - average active and 28.5% poorly active and 52.4% - inactive microorganisms strains respectively). After exposure to the orange spectrum LED radiation clinical S. aureus strains possessed high DNase (from 47.6% to 100%) and lecithinase (from 52.4% to 100%) activity during the day, all S. aureus strains had high lecithinase activity at 12^{00} and at 21^{00}, high DNase activity of E. coli strains was observed at 12^{00} (80.9%) and at 21^{00} (100%). It is worth to note that at 18^{00} clinical S. aureus strains had no high DNase activity.

Conclusion. Thus, violet, green and orange spectra LED radiation was characterized by changes in the enzyme profile of S. aureus and E. coli cultures, that was not only different in comparison with each other, but also between the same strains according to circadian biorhythms of microorganisms. It was found that the impact of violet spectrum LED radiation contributed most pronounced inhibition of pathogenicity factors, especially such enzymes as and DNase.

Kravchun P.P.

THE LIPID AND CARBOHYDRATE PROFILE IN PATIENTS WITH POSTINFARCTION CARDIOSCLEROSIS, TYPE 2 DIABETES AND OBESITY IN 6 MONTHS AND 1 YEAR AFTER MYOCARDIAL REVASCULARIZATION

Research advisor: Bilovol O.M., MD, Academic AMN of Ukraine
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Actuality. Number of patients with combined pathology - postinfarction cardiosclerosis, type 2 diabetes and obesity is increase year to year as in Ukraine also among Europe population.

Aim. To investigate the carbohydrate and lipid metabolism

in patients with postinfarction cardiosclerosis, type 2 diabetes and obesity in 6 months and 1 year after myocardial revascularization.

Matherials and methods. There were examined 58 patients who took thrombolytic therapy and 32 patients who underwent percutaneous coronary intervention.

Results. Comparison of two methods of revascularization at 6 months showed no preference to any of them in patients with postinfarction cardiosclerosis, type 2 diabetes and obesity

Conclusions. In both groups, 6 months and 1 year after revascularization significant differences in carbohydrate and lipid metabolism in the examined patients, depending on the type of reperfusion therapy have not been established, that indicates, that a comparative analysis of different modes of myocardial revascularization did not show any advantages of them.

Mayorova Margarita, Kovalyova Yulia, Shelest Boris

SMOKING AS RISK FACTOR AT PATIENTS WITH THE COMBINED COURSE OF ARTERIAL HYPERTENSION AND DIABETES 2 TYPES

Research advisor:Prof. Shelest Aleksey
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Actuality: Nowadays the arterial hypertension (AH) and the diabetes (D) 2 types take the big part in structure of incidence of the population. It is known that smoking causes endotelial dysfunction which leads to development of AH and D2 type.

The aim: To define smoking influence extent on the general links of pathogenesis of AH and D 2 type.

Materials and methods: The examinated group have been made by 27 smoking men at the age of 52 ± 8,2 years with a combined course of D 2 type and AH. Control group have been made by 24 men at the age of 52 ± 8,2 years with a combined course of D 2 type and AH which don't smoke. Examination has been conducted according to diagnostic standards. AH have been diagnosed by manipulation measurement of arterial pressure, EHOEKG, assessment of the central haemodynamics and geometry of the left ventricle. For determination of the last two parameters the device "HD11XE" (Philips, USA) have been used. The diagnosis of D 2 type have been made by application of the capillary blood analysis, definition of

glycozed hemoglobin and test on tolerance to glucose. Existence of endotelial dysfunction was estimated by definition of mediators of endotelial damage: homocysteinum and nitrogen oxide (NO).

Results: Presence of smoking aggravates the a combined course of these pathologies. It is confirmed by increase of EDV to 214,5±21,1ml and ESV to 178,25±11,12 ml in examinated group and EDV to198,5±21,1мл, ESVto 168,25±11,12 ml in control group. Besides, in examinated group it is revealed reliable increase of a homocysteinum to 24,7±0,93 ($p<0,005$) mmol/l and decrease of NO to 6,3 ($p<0,005$) mM/ml. At the control group level of a homocysteinum was increased to 19,6±0,93 ($p<0,005$) mmol/, and NO decreased to 6,6 ($p<0,005$) mM/ml.

Conclusions: It is shown the considerable influence of smoking to the deterioration of condition of endotelial dysfunction and deterioration in a combined course of D 2 type and AH.

Medyanik E.A., Maslova E.S.

ANALYSIS OF PROGNOSTIC FACTORS FOR EARLY MYOCARDIAL INFARCTION

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Actuality. In Ukraine cardiovascular disease continues to occupy a leading position in the ranking of the reasons for the high mortality rate. 35% cases of mortality due to acute myocardial infarction according to the Ministry of health of Ukraine for 2015. Despite the fact that most patients seek professional help in the first hours of acute coronary syndrome, a number of difficulties is associated with the outside of the flow, asymptomatic of clinical disease or absence of diagnostically significant ECG changes in 30% of diagnosis cases. Thus, early diagnosis of myocardial infarction (MI) remains an important issue today.

The aim. To analyze laboratory indicators to determine the early signs (MI).

Materials and methods. We conducted a study that involved 22 patients (13 men and 9 women) aged from 52 to 67 years, on the basis of City clinical hospital №11 during 2015-2016. These patients came in the first hours of the disease with a diagnosis of acute coronary syndrome. All patients were assigned to a general blood analysis, and in

the first 3, 6 and 12 hours there were determined for the level of enzymes activity: AST (aspartate aminotransferase), ALAT (alanin aminotransferase).

Results. In 17 patients (77%) there was observed polymorphocellular leukocytosis (mean value - 35±3,3××⟦10⟧^9/l, which indicates nonspecific reactions of an organism in response to myocardial damage. In 19 cases (86%) we found the shift of leukocyte formula to the left, at the expense of band neutrophils. In 21 patients (95%) we noted an increase in the activity of enzymes. The average of indicates were the next: 3 hours AST was 69.2±7,1 IU/l, ALAT – 55,2±4,3 IU/l, 6 hours AST – 57,1±3,2 IU/l, ALAT – 81,5±1,9, 12 hours – AST-105,4±9,1 IU/l, ALAT - 60,3±1,5 IU/l. However, it should be noted that only 18 patients (81%) had confirmed acute myocardial infarction (the diagnosis was based on clinical, objective, laboratory datas).

Conclusions. Thus, leukocytosis, neutrophilia with a pronounced left shift, hyperfermentemia AST, ALAT were found in almost all patients in acute coronary syndrome, indicating a lack of specificity of these indicators.

Melenevych A. Ya.

IMPLICATION OF INTERLEUKIN-18 IN THE PATHOGENESIS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN COMBINATION WITH HYPERTENSION

Research advisor: Kapustnyk V.A., Doctor of Medical Science
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Actuality. Chronic obstructive pulmonary disease (COPD) patients are at a high risk of developing cardiovascular diseases. Airflow limitation is a predictor of future risks of hypertension and cardiovascular events.

Aim of the investigation was to reveal the implication of Interleukin-18 (IL-8) in the pathogenesis of COPD in combination with hypertension.

Materials and methods. A number of population studies have shown that airflow limitation as measured by the forced expiratory volume in one second (FEV1) or the FEV1/forced vital capacity ratio is a predictor of future risks of hypertension and cardiovascular events. The other review described that for every 10% decrease in FEV1, all-cause mortality increases by 14%, cardiovascular mortality increases by 28%, and nonfatal coronary

events increase by almost 20% (Yuki Imaizumi, Kazuo Eguchi, Kazuomi Kario, 2014).

Results. COPD is characterized by a low grade systemic inflammation, closely associated with its extrapulmonary determinations. The relation of inflammation with cardiovascular disease in patients with COPD is complex. Circulating mediators, such as cytokines and C-reactive protein are capable of inducing endothelial dysfunction that initiates and then contribute to the progression of atherosclerosis. The activation of endothelium results in increase endothelial permeability with uptake of oxidized low-density lipoprotein into the atherosclerotic plaque which leads to rupture and thrombus formation with the development of heart attacks and strokes. IL-18 belongs to the interleukin-1 cytokine family, is characterized by proinflammatory activity, and activates the specific immunity. IL-18 induces the production of interferon-γ (IFN-γ) in T cells, macrophages, and NK cells and promotes differentiation of T cells, underlying the development of proinflammatory and proatherogenic immune response.

Several studies have shown that serum IL-18 levels have negatively correlated with FEV1 in COPD patients. Overexpression of IL-18 and IFN-γ-inducing factor lead to severe emphysematous changes and chronic inflammatory changes characteristic of COPD.

Conclusion. Future studies of the role and mechanism of participation of IL-18 and other cytokines in the formation of COPD in combination with hypertension will open new opportunities for effective targeted methods of early prevention and treatment of comorbid pathology.

Melenevych A. Ya.

DIAGNOSTIC AND PROGNOSTIC ROLE OF MARKERS OF IMMUNE INFLAMMATION IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN COMBINATION WITH HYPERTENSION

Research advisor: Kapustnyk V.A., Doctor of Medical Science
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Actuality. Currently 210 million people have chronic obstructive pulmonary disease (COPD) and it is predicted to become the third leading cause of death worldwide by 2030. In 2008, worldwide, approximately 40% of adults aged 25 and above had been diagnosed with hypertension.

Materials and methods We have analyzed the most significant factors associated with increased cardiovascular risk in patients with COPD. Clinical and epidemiological observations indicate that COPD patients are more susceptible to acute cardiovascular events, and about 30% die of CVD (Corbi G., Bianco A., Turchiarelli V. et al., 2013). Some of this increase in risk is likely to come from shared factors, such as smoking, elderly age, decrease in physical activity, but chronic systemic inflammation could be pivotal.

Results. Systemic inflammation is potentially the common pathway leading to the high prevalence of multiple chronic diseases in the same patient. The chronicity of the inflammatory state is promoted by the production of several pro-inflammatory cytokines that increase in serum and in secretions of CVD and COPD patients. Cytokines play a key role in orchestrating chronic inflammation, and over 50 cytokines have now been identified in COPD, but their roles in its complex pathophysiology are still unclear. Cytokines work in complex interacting networks, and there is often redundancy in their functions (Barnes P.J., 2009). Hypertension is related to the increased systemic inflammation observed in COPD and is correlated with higher Medical Research Council dyspnea scores, reduced capacity for physical activity and airflow obstruction (Hillas G., Perlikos F., Tsiligianni I. et al., 2015).

Conclusion. The interrelationships between different cytokines are currently very poorly understood. Future prospective studies should investigate if these markers will give important prognostic information in relation to disease progression and severity in COPD.

Mieshchanina D.R.

THE THERAPY OF CIRCULATORY FAILURE IN PATIENTS WITH CHRONIC PULMONARY HEART DISEASE

Kharkiv National Medical University (Department of Internal and Occupational Diseases, Ukraine, Kharkiv)
Scientific leaders: Ph. D., associate professor Pogorelov V. M., Ph. D., professor Telegina N. D., Ph. D., Ph. D., assistant Maslova E. P., associate professor Brek V. V,

Recently observed increase in chronic obstructive pulmonary disease (COPD). From 4 to 10% of the adult population of the planet are symptomatic stages of COPD. In Ukraine, about 7% of the working population suffer from this disease. COPD is characterized by progressive airflow obstruction, and exacerbation of the pathological process leads to changes in the normal daily variability of symptoms with increased average pressure in the pulmonary artery (STLA) which results in chronic lung heart (CLH).

Purpose - optimization of treatment failure in patients CLH.

Materials and methods for therapeutic department DKL st. Kharkiv in the 2013-2015 biennium. Under observation were 59 patients with B-NKIIA against the backdrop of CLH. The average age of patients was 66 ± 5 years. All patients received general therapy. Group 1 (20 people) additionally included telmisartan 80 mg / day (group). Patients from second group (39 people) - torasemid® telmisartan + 20 mg / day (study group). Both groups of patients were compared CLH as age, clinical and functional form of the disease. There was clinical and laboratory identity of patients.

State of intracardiac hemodynamics assessed by echocardiography, mean pulmonary artery pressure (STLA) - using doplerEhoKH. Condition blood gas composition was evaluated in terms of rCO2 and rO2 in arterial blood.

The results of research on the background of the therapy in patients with second observation group compared with patients from first group noted a significant improvement in the general condition of patients: decreased of dyspnea , weakness, malaise. On palpation determined the reduction in size of liver and almost disappeared edema of the lower extremities, accompanied by improving the transfer of physical activity.

Conclusions. The use of telmisartan combined with furosemidom® in the treatment of patients CLH, accompanied by improvements in intracardiac hemodynamics and reduced clinical manifestations of heart failure.

Therapy failure in patients CLH telmisartan and its combination with torasemidom® clinically accompanied by signs of ion exchange of sodium and potassium, giving rise to more widespread use of this combination therapy in patients CLH.

Mykhailiuk Natalia Valeriivna

APPLYING OF CARDIAC SHOCK-WAVE THERAPY IN THE PATIENTS WITH A STABLE ANGINA PECTORIS II-III FC

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Importance. An increasing number of patients are diagnosed with the stable form of angina pectoris.Such procedures as coronary bypass grafting (CABG) or percutaneous coronary intervention can't be applied to all patients. Nowadays a new way of treatment is being developed - therapeutic angiogenesis , which is achieved by shock-wave therapy (SWT).

Goal. To learn the influence of CSWT on the patients with angina pectoris II-III FC.

To learn the influence of CSWT on duration and of frequency of attacks. To learn the influence on contractility and ejection fraction of left ventricular. To look at the dynamics of functional class of angina pectoris. And also to learn if there are any changes of life's quality according to the questionnaire "SF-36" .

Methods and Materials. In this research two groups of patients with angina pectoris II-III FC take part. The first group are treated with medicines and with a course of SWT. The second one (group of control) are treated only with medicines.

Results. Significant improvement in chest pain symptoms, use of nitrates decreased from about 8 to 3 tablets per week. Ejection of left ventricular has been increased through 6 month from the beginning of course from 31 +-4 % to 36 + -5%. An increasing of quality of life according to special questionnaires has been followed. There was a reduction of functional class of angina pectoris from 2.4 to 1.5. The indicators of veloergometry is increased on 27%.

Conclusions. Extracorporeal cardiac SW therapy is an effective, safe and non- invasive therapeutic option for severe angina pectoris II-III FC. This method of treatment helps to improve the quality of life, to decrease the number of chest pain attacks and also to prevent the progression of heart weakness.

Minukhina D.V., Gabisoniya T.N, Shapirko E.A.

PATHOGENETIC VALUE OF VISFATIN AND ADIPONECTIN IN PATIENTS WITH STABLE ANGINA AND OBESITY

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Actuality. Coronary heart disease (CHD) is the leading health problem in many countries. One of the most common forms of ischemic heart disease is stable angina. Comorbidity of stable angina and obesity is the trigger mechanism of the pathophysiological cascade development and progression of atherosclerosis.

Aim. To optimize the diagnosis and treatment of cardiometabolic disorders on the basis of clarifying the pathogenetic role of adipocytokines -visfatina and adiponectin in the development of atherosclerosis in patients with stable angina and obesity.

Matherials and methods. 60 patients with stable angina. All the patients were divided into 2 groups: patients with stable angina with concomitant obesity (n = 35) and patients with stable angina without obesity (n = 25). The control group consisted of 10 healthy individuals.

Results. The study of the dynamics of exchange adipokinovogo visfatin level reached 30,1 ± 1,2 ng / l, and adiponectin decreased to 5,17 ± 0,15 ng / l , indicating that hipoadyponektynemiya and hipervisfatynemiya associated with the development of obesity in patients with stable angina. Given the above, it can be assumed that adypokin' s dysfunction exchange against the backdrop of increased body weight contributes to the development and progression of atherosclerosis in patients with stable angina by exhaustion antiatherogenic opportunities of adiponectin and activation metabolic disorders by visfatyn.

Conclusions. Thus, the study of pathogenic importance visfatin and adiponectin in patients with stable angina and obesity can be used as a predictor of the development and progression of stable angina.

Molotyagin Dmitry, Mironchenko Anastasia, Sukhomlyn Mykola

CLINICO-EPIDEMIOLOGICAL AND DIAGNOSTICAL ASPECTS OF THE OLLIER DISEASE

Research advisor: profesor, doctor of medical science Kravchun Pavlo Grigorievich
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Actuality: Ollier's disease (OD) (chondralloplasia, dyschondroplasia) – systemic skeletal disease characterized by a slow and perverted ossification of cartilage. The epidemiology of this disease was hardly studied due to its relative rarity.

The aim of this research was to analyze the existing data by using scientometric databases.

Result: Despite the fact that a significant number of studies devoted to this disease had been published all over the world, there are only a few descriptions of the disease in Ukraine, but even they do not always reflect the overall picture of the disease. There is a common belief that the disease is inherented in childhood. Thus, all the diagnostics and treatment issues are considered only for this age group of patients. However, a few cases of chondralloplasia among adults aged 16 to 60 years are known. OD is considered to be a rare disease, but data sources indicate that there was an increase in the incidence rate all over the world. This pathology occurs almost equally among men and women.

Diagnostics of OD is still considered to be very difficult for a wide range of doctors, due to the absence of specific lab-instrumental tests, insufficient knowledge of clinical signs, diagnostic criteria and existence of atypical forms of the disease. Often, patients are exposed erroneous diagnosis of osteomyelitis, rheumatoid diseases, tuberculosis and tumors. Consequently, patients are given specific treatment that increases the severity of the disease.

In most cases, OD is characterized by unilateral damage of ossa, shortening and thickening of the affected limb, changed manner of walking, claudication, and often secondary asymmetry of pelvis and spinal scoliosis. However, bilateral form of the disease was described too, that causes multiple asymmetrical bone disorder. Pain syndrome is considered to be the leading sign in the OD diagnostics, as well as the presence of tumor-like mass in the epiphysial cartilage area of tubular bones. Restraint of movement within the large joints was observed in some cases. Complexity of diagnosing the disease

is given a special emphasis by the researchers, which includes complex diagnostic search using computed tomography, magnetic resonance tomography, scintigraphy and bone-biopsy in addition to the standard diagnostic methods.

Conclusions: Clear understanding of OD epidemiology, nature of the disease for different age groups, possibility of atypical cases and diagnostic criteria will facilitate just-in-time diagnosis of the disease and appropriate treatment.

Movchan Y.O., Yakymenko D.S

DISORDERS OF LIPID METABOLISM IN PATIENTS WITH TYPE 2 DIABETES AND HYPOTHYROIDISM, CORRECTION OF THESE DISORDERS

Research advisor: Docent Lakhno Olga Viktorivna
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Actuality: Disorders of lipid metabolism, along with chronic hyperglycemia and hypertension can lead to macrovascular and microvascular complications in patients with type 2 diabetes mellitus (T2DM). Patients with concomitant pathology, accompanied by a secondary dyslipidemia, that are type 2 diabetes and hypothyroidism, have a higher risk of these complications.

Aim of this study was to investigate the characteristics of dyslipidemia in patients with type 2 diabetes and hypothyroidism, the correction of disturbances.

Material and methods: A total of 15 patients with T2DM and moderate hypothyroidism (the average age of patients was 55,6 ± 1,1 years) were classified into two groups . The control group consisted of 14 patients with type 2 diabetes without disturbance of thyroid function, the average age of patients was 56,4 ± 1,1 years. In both groups patients received metformin and sulfonylurea drugs as hypoglycemic therapy, lipid-lowering therapy has not been evaluated. Patients of the main group also received replacement therapy with levothyroxine, the average level of thyroid stimulating hormone (TSH) was 7.5 ± 2 mkIE / ml. All patients underwent determination of serum total cholesterol, cholesterol levels of low density lipoprotein (LDL), cholesterol levels of very low density lipoproteins (VLDL), high density lipoprotein cholesterol (HDL) and triglycerides (TG).

Results: According to the study, high levels of triglycerides (5,2 ± 1,2 mmol / l) prevailed in patients of the main group, also increasing

levels of VLDL (2,25 ± 0,3 mmol / L) and LDL (4,02 ± 0 3 mmol / l) were revealed. There was a direct correlation between the amount of TSH and TG (r = 0,52, p = 0.03). Preferential increase of VLDL (2,69 ± 0,3 mmol / l) and TG (3,14 ± 0,3 mmol / l) was found in patients of the control group. With the purpose to correct dyslipidemia patients of the main group were assigned to a combination of atorvastatin 20 mg per day and fenofibrate 145 mg per day. At the same time, the correction of doses of levothyroxine was examined. In 6 months of therapy there was a significant level decrease of triglycerides to 2.2 ± 0.7 mmol / l, p = 0.043, VLDL - 1.21 ± 0.2 mmol / l, p = 0.009, and LDL - 2,45 ± 0.2 mmol / l, p = 0.0001.

Conclusions: Dyslipidemia in patients with type 2 diabetes and hypothyroidism had a particular features. It was characterized by an increase of triglycerides, VLDL, LDL. So for correction of the disturbances it is necessary to achieve euthyroid status and to use the combination of lipid-lowering therapy - atorvastatin and fenofibrate.

Onwujekwe Udodi E.

MODERN ASPECTS OF TREATMENT OF RHEUMATOID ARTHRITIS

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Actuality: Biological therapy of rheumatoid arthritis involves the use of certain groups of drugs which modify the activity of certain immune cells. These drugs include groups such as inhibitors of TNF-alpha (infliximab, adalimumab), inhibitors of janus kinase (tofacitinib), inhibitors of IL-1 (anakira), inhibitors of IL-6 (tocilizumab), inhibitors of CD20 of B-lymphocytes (rituximab) and inhibitors of CD80, CD86 and CD28 of T-lymphocytes (abatacept).

Aim: To investigate the efficiency of tocilizumab in the treatment of patients with rheumatoid arthritis.

Materials and Method: 18 patients with rheumatoid arthritis, in the rheumatology department of Kharkov Regional Hospital, were started on treatment with tocilizumab at a dose of 8mg/kg IV once a month for 4 months. The patients were observed before treatment, after two months and after the 4months course of treatment. Evaluation of the efficiency of treatment was carried

out according to: visual analog scale, number of tender swollen joints, biochemical analysis and Xray images.

Results: The most frequent complaints of these patients were deformation of joints (100%), joint pain (100%), limitation of range of motion (100%), swelling of joints(72%), and morning stiffness (89%). In all patients the number of painful joints was decreased by approximately 40-42%, the degree of joint swelling was decreased by about 57% on the average, seromucoid levels dropped by about 9.7% and the level of sialic acid decreased by about 3%. The following side effects were observed: allergic rash on hands (5%), and flu-like reactions (5%) - nasopharyngitis. Xray pictures showed decreased bony deformation.

Conclusions: As a result of treatment of rheumatoid arthritis with tocilizumab, cessation of joint destruction was observed, there was decreased pain and swelling and the patients' quality of life was improved. This group of drugs is very relevant in the treatment of rheumatoid arthritis. More research on biopreparations) should be made on a larger number of patients to observe other side effects if any.

Pochernina V.

TOLL-LIKE RECEPTOS 4 AND 9 TYPES IN THE PATHOGENESIS OF PSORIASIS

Research advisor: Dashchuk A. M., professor
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Actuality. Psoriasis is one of the most common chronic multifactorial disease. Psoriasis weight proportion in the total skin diseases is from 7% to 10% and among hospitalized patients with skin diseases to 20-25%.

The aim is to investigate changes immunohistochemical expression of Toll-like receptor 4 and 9 (TLR4, TLR9) in the skin of psoriasis patients.

Materials and methods. A immunohistochemical study of biopsies from areas of psoriatic skin rashes and skin intact in 25 patients with psoriasis. In addition to comparing the results of immunohistochemical studies carried out the study of biopsy material of skin of healthy people (5 patients). To determine the nature and extent of local cellular immune and inflammatory reactions applied immunohistochemical techniques to determine the expression of markers of CD 284 (TLR4), CD289 (TLR9).

Results. The expression of TLR4 and TLR9 in the epidermis of the skin normally is most pronounced in the cells of the basal and spinous layers. It should be noted that the expression of nuclear receptors mainly in the cytoplasm of epithelial cells of the minimal coloration. In the epidermis intact skin of psoriasis patients determined more active focal expression of TLR4 and TLR9. Topographically observed predominant localization of these receptors in the basal layer of the epidermis. The skin of psoriatic plaques is determined by a significant thickening of the epidermis and the growth number of TLR4 and TLR9 positive cells. Macrophages migrate in the vessels of dermal papilla, had expressed a positive expression of the marker. TLR4- and TLR9-positive monocytes and macrophages appeared in the blood vessels and perivascular space of the papillary dermis. The greatest number of positive cells was observed in the vessels that were placed in the nipples.

Conclusion. Patients with psoriasis and found hypersecretion and hyperproduction of inflammatory skin epithelial biomarkers, in particular TLR4- and TLR9-positive cells, which appear both in the areas affected by psoriatic rash and the intact skin. This indicates a permanent stimulation of macrophages and lymphocytes to sites not only psoriatic plaques and in remote.

Pylov D.I.

THE EFFICIENCY OF COMBINATION THERAPY OF BIGUANIDES, STATINS AND ALPHA-LIPOIC ACID ON LIPID PROFILE IN PATIENTS WITH DIABETES TYPE 2 AND DIFFERENT PHENOTYPES

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Actuality. It is well known, that diabetes mellitus (DM) type 2 is associated with the development of obesity and insulinresistance, which leads to dyslipidemia, atherosclerosis and cardiovascular diseases, decrease the number of fatal cases.

The aim to valuate efficacy of the combination therapy of biguanides, statins and alpha-lipoic acid patients with diabetes type 2 and dyslipidemia with different phenotypes.

Materials and methods Were exanimated 20 patients (5 men) with

DM type 2, average age was 45.5±3.1 duration of DM was 4.2±0.7, HbA1c 7,6±0,4, postprandial glycaemia (PPG) 10,8±0,7. Body mass index (BMI) – 30,12±2.1 kg/m2, IR was calculated by the formula HOMA = 5,5±1,1. Total cholesterol (TC)– 6,2±0,3.High density lipoproteins (HDL) - 1,2±0,15.Low density lipoproteins (LDL)3,98±0,15.Triglycerides (TG) – 1,8±0,2.Dyslipidemia was based on the determination (TC, HDL, VLDL and TG) by colorimetric enzymatic method. Treatment include diet, atorvastatin in daily dose of 10 mg, Metformin in individually selected dose, alpha-lipoic acid at dose of 600 mg number 10 i/v.

Results. Against the background of 3-month therapy, it is possible to notice clinical and laboratory improvement of carbohydrate metabolism as: BCP 1.92 ± 0,43 mmol/l (from 10.8 ± 0.7 mmol/l to 8.85 ± 0,3 mmol/l; p ≤0.001), HbA1c from 7.6 ± 0.4% to 6,8 ± 0,2 % (p ≤0.001), the HOMA Index decreased from 5.5 ± 1.1 to 3,3 ± 0,4 (p < 0,001), BMI (30,12 ± 2.1 kg/m2 to 29.6 ± 1,31 kg)but p ≥ 0,05. Lipid metabolism: reduction in total cholesterol by 11% (from 6.2 ± 0.3 to 5,48 ± 0,2 mmol; p ≤ 0.05), LDL – 5.5 % (3,98 ± 0,15 mmol/l to 3.7 ± 0.10 mmol/l), TG by 33% (from 1.8 ± 0.2 mmol/l to 1.20 ± 0.18 mmol/l, p ≤ 0.05) The level of HDL changes were not reliable.

Conclusion. Combination therapy of biguanides, statins and alpha-lipoic acid leads to improvement of carbohydrate and lipid metabolism and also contributes to the decrease of BMI in patients with diabetes type 2.

Pylova T.V., Dubivska S.S.

THE RISK OF MYOCARDIAL INFARCTION AND ACUTE STROKE AMONG THE PATIENTS WITH A COMBINATION OF THE TYPE 2 OF DIABETES MELLITUS AND ARTERIAL HYPERTENSION

Research advisor: Dubivska S.S., assistant professor
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Actuality. There were 181300 patients of diabetes mellitus (DM) registered in 2013 year in Ukraine (80 -90 % of them had DM type 2). Among those patients, 70-80 % had hypertension. The combination of hypertension (HT) and DM type 2 increase the risk of cardiovascular complications.

The aim is to examine the risk of myocardial infarction (MI) and stroke among the patients with diabetes type 2, in combination with hypertension. Early detection and

prevention of the risk of MI and stroke among the patients with HT and DM type 2.

Materials and methods. 105 patients with DM type 2 in age of 40-74 years were exam. Duration of DM type 2 was from 2 to 16 years. The 1 group included patients with DM type 2 with HT (n = 65). The 2 group included patients with DM type 2 without HT (n = 40). The control group consisted of 10 healthy human.Examination included electrocardiogram (ECG), halter ECG, blood pressure (BP) control, echocardiography, lipid metabolism include total cholesterol (TC), high-density and low-density lipid (HDL), (LDL).Carbohydrate metabolism include glycemic profile: fasting capillary blood glucose (FCG); postprandial blood glucose (PCG). Glycosylated hemoglobin (HbA1c) was used.

Results. It was found that among the patients 1 group level of systolic BP and diastolic BP was above normal; the results of echocardiography showed left ventricular diastolic dysfunction, increasing of atrial systole time and compensatory hyperfunction of left heart the patients of 1 group, as well as significantly increased levels of lipid (TC-6.88 ± 0.21; HDL-1.02 ± 0.05; LDL-4.96 ± 0.25) and the carbohydrate profile (FCG-11.1 ± 0.4, PCG-14.22 ± 0.4, HbA1c-11.75 ± 0.31) in comparing with the 2 group, where such levels of lipid (TC-5.53 ± 0.4; HDL-1.25 ± 0.07; LDL-3.53 ± 0.31) and the carbohydrate profile (FCG-5.98 ± 0.24, PCG-8.19 ± 0.29, HbA1c-6.76 ± 0.4) were found. These parameters in the control group were normal.

Conclusion. Consequently, we noted that among the patients with DM type 2 in combination with hypertension the risk of cardiovascular complications is significantly higher. Therefore, to prevent the occurrence of such complications as myocardial infarction and stroke it is very important to care about early detection and adequate treatment of patients with type 2 of diabetes and hypertension.

Romanenko O.R., Talalaienko O.K.

REPERFUSION ARRHYTHMIAS IN PATIENTS OF DIFFERENT AGE WITH ACUTE MYOCARDIAL INFARCTION

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Actuality. Reperfusion injury is a phenomenon that occurs because of restoration of normal blood flow in ischemic region of myocardium and develops due to calcium-mediated, oxygen-mediated and other pathways. In literature the incidence of reperfusion arrhythmias is: accelerated ventricular rhythm - 80-95%, ventricular premature complexes - 70-80%, ventricular tachycardia - 65-80% and fibrillation - 6-10%.

Aim. To determine the incidence of reperfusion arrhythmias in patients of different age and to describe types of occurring rhythm disturbances.

Materials and methods. Case histories of 40 (40% were women) stented patients with diagnosis of acute myocardial infarction (AMI) were analyzed. Patients were divided into two groups by the age: the first group (n=21) – age under 60, average age 52,7±3,0 and the second group (n=19) – age 60 and above, average age 67,7±3,0. In the first group the localization of AMI in anterior wall of left ventricle (LV) was observed in 12 cases (57,1%) and in posterior wall of LV in 9 cases (42,9%). In the second group AMI was localized in anterior wall of LV in 10 cases (52,6%) and in posterior wall of LV in 9 cases (47,4%).

Results. In the first group arrhythmias in time of or just after stenting were registered in 11 patients (52,4%). Reperfusion arrhythmias consisted of frequent polytopic premature beats in 7 cases (63,6%), hemodynamically significant bradycardia in 3 cases (27,3%) and ventricular tachycardia in 1 case (9,1%). In the second group reperfusion arrhythmias occurred in 7 patients (36,8%). It consisted of frequent polytopic premature beats in 3 cases (42,8%), ventricular tachycardia in 2 cases (28,6%), hemodynamically significant bradycardia in 1 patient (14,3 %) and paroxysm of atrial fibrillation in 1 patient (14,3%).

Conclusions. In both age groups reperfusion arrhythmias are frequent and dangerous complications of successful revascularization in patients with AMI. In patients under 60-years-old as well as in patient 60-years-old and above after restoration of blood flow frequent polytopic premature beats, hemodynamically significant bradycardia, ventricular tachycardia

have occurred. Paroxysm of atrial fibrillation occurred in 1 case in group of older patients. In the first group reperfusion arrhythmias took place on 15,6% more often than in the second group. Frequent polytopic premature beats and hemodynamically significant bradycardia were registered on 20,8% and on 13% more often in the younger group, respectively. In the second group ventricular tachycardia occurred on 19,5% more often than in the other group.

Rynchak P., Rostovtseva M.

DAMAGE OF THE MYOCARDIUM IN PATIENTS WITH MITOCHONDRIAL DISEASES

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Actuality. Mitochondrial diseases result in damage of cardiovascular system including myocardium and the conducting system in approximately 25%, are progressive in nature. In some cases, cardiomyopathy may be the first and only manifestation of the disease.

The aim is to study the pattern of myocardial damage in mitochondrial diseases, methods of medical treatment.

Materials and methods. Echocardiography, cardiomyopathy, analysis of published data.

Results. The causes of many idiopathic and gestational hypertrophic cardiomyopathies are mitochondrial diseases. It was found that the cardiomyopathy in most cases is combined with a sharp decline in the level of carnitine in the mitochondria. The analysis of many multicenter studies showed a more favorable course and prognosis of mitochondrial cardiomyopathy during treatment with L-carnitine: died from cardiomyopathy – 20%, live – 71%, heart transplantation - 9%. In the comparison group: died from cardiomyopathy – 11% died from other causes – 8%, live – 64%, heart transplantation in 17%.

Conclusion. It is important to recognize the origin of mitochondrial cardiomyopathy, as it determines the further tactics of patient's management. Additionally, the including of L-carnitine in standard therapy improves the course and prognosis of the disease. L-carnitine is recommended in all forms of the cardiomyopathy.

Salawu K.T.

THE EFFICIENCY OF DIFFERENT TREATMENT REGIMENS IN PATIENTS WITH PSORIASIS.

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Actuality. For years, doctors and dermatologists have been researching methods of treatment for psoriasis, which is one of the most common diseases of human skin that causes not only physical but also mental suffering.

The aim is to determine the rate of recovery in psoriasis patient receiving different treatment regimens and their connection with changes in levels of Immunoglobulin G (IgG).

Materials and methods. We examined 120 patients with psoriasis (99 men & 21 women aged 16-60 years). Patients were divided into 3 groups. The 1st group (20 patients) received basic therapy-vitamin B6 1ml i/m 1x/day for 20days & vitamin B12 500mcg i/m 1x/day for 20days. The 2nd group (20 patients) received-Dalargin 0.001 i/m 1x/day for 10days and Amizon 250mg p/o 4x/day for 10days. The 3rd group (80 patients) received combined therapy (basic therapy, Dalargin & Amizon). The severity of the clinical manifestation was evaluated by the PASI-index & IgG levels & other immune markers were closely monitored.

Results. Significant differences in recovery were observed between patients in groups 1 and 3 but only a slight difference between those in groups 2 and 3. Clinically, patients who received combined therapy had significant overall improvement. As a result of combined therapy, levels of ESR and Leukocytes which were elevated at the start of therapy, significantly decreased. In groups 2 and 3, 53% of the patients had complete clinical recovery, and 32% with significant improvement. In group 1 35% of the patients had clinical recovery, 25% with moderate improvement, 30% with minor improvement, and 10% showed no response to the treatment. Patients with psoriasis showed marked changes in immune status: suppression of T- & B-linked immunity, activation of humoral immunity and excessive amounts of circulating immune complexes in the blood. Reduced IgG levels after treatment with combined therapy, was due to the reduction of their secretion by reducing severity of pathological process while elevated levels of IgG after treatment with basic therapy was due to the absence of mechanisms that contribute to

suppression of autoimmune reactions in psoriatic plaques.

Conclusion. In analysing the immunological parameters of patients with psoriasis, changes in dynamics of immune components (CD4+, IgG) were revealed in patients of all 3 groups. Fluctuations in these components occurred in the same direction, regardless of the therapy. In our opinion, this is logical because, in patients treated with Dalargin, Amizon and basic therapy was revealed improvement of the skin process expressed in different degrees.

Semenovych O. B.

HYPERTENTION IMPACT ON RENAL FUNCTIONING. REVIEW OF NOWADAYS PROBLEMS

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Actuality. Kidneys - is one of the most important organs in the body, but at the same time they are sensitive to adverse factors of various origins. Therefore, kidneys are one of the first organs who respond and suffer injuries from increased blood pressure. About 5% of all patients who suffer from hypertension have kidney damage, but this figure is growing.

The aim. Identify pathogenetic mechanisms and methods of correction of renal disease for patients with hypertension.

Materials and methods. The study of the literature, its analysis for determination of pathogenic mechanisms and methods of correction of renal disease for patients with hypertension.

Results. According to the author [Kurtz T. Et al.2003] factors of hypertensive kidney damage can be divided into three categories: 1) systematic "load" by blood pressure; 2) the degree at which the load is transferred to the renal vascular bed; and 3) local tissue sensitivity to the desired degree of barotrauma. Along with classic mechanisms of kidney damage development in arterial hypertension, the recent acihevements in this problem study have to be noticed. By the authors [Trudu M. et al.2013] a new mechanism of kidney damage in arterial hypertension was demonstrated, it was found that there is a genetic predisposition to hypertension and uromodulinis expression level that promotes salt reabsorption in the kidney. During researches it was found that pharmacological inhibition of sodium co-transporter - NKCC2 had a greater

effect in lowering blood pressure for hypertensive patients who were homozygous. In other studies [Murray D. Esler et al. 2012] it was proved that one of the pathogenic mechanisms of renal dysfunction in arterial hypertension is increasing activation of renal sympathetic system. It was found that renal denervation provides sustained blood pressure reduction up to 1 year.

Conclusions. It was established that scale of damage to the kidneys and their operationing decrease depends on the amount and duration of high blood pressure impact, uromodulinis expression level and more. In-time diagnosis and correction helps to prevent the development of these disorders.

Shalkovskyi Y.I., Suchok S.O.

SGLT2 INHIBITORS - A NEW NON-INSULIN APPROACH TO THE TREATMENT OF DIABETES MELLITUS TYPE 2

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Actuality. According to statistical data of the International Diabetes Federation (IDF) in 2015 the number of DM patients was 415 million. By 2040, projected number of patients will be about 642 million. Despite the large arsenal of antidiabetic drugs, hypoglycemic means search with maximum efficiency and minimal side effects such as weight gain and hypoglycemia level are continued. There is a need for new drugs with non-insulin-dependent mechanism of action and efficiency which does not depend on the pancreas beta cells function.

The aim. The study of the efficacy and safety of new class of hypoglycemic drugs - SGLT2 inhibitors.

Materials and Methods. Processing and analysis of publications in medical databases Pub Med and Medscape.

Results. SGLT2 inhibitors are a group of oral hypoglycemic drugs which therapeutic target are kidneys. The mechanism of action is glucose and sodium symport blockage, which ensures reduction of glucose reabsorption and normalize glycaemia.

Improved glycemic control under the influence of SGLT2 inhibitors is also reduced glomerular hyperfiltration, which is a positive effect in regard to the development of diabetic nephropathy. Glucose toxicity

reduction at the usage of these drugs is manifested in the recovery of the pancreas beta cells sensitivity, thus increasing insulin synthesis, and sensitization of peripheral tissues to insulin action. The usage of SGLT2 inhibitors not only leads to blood glucose lowering but also to shift the energy balance in a negative way that creates additional benefits in diabetes patients with obesity. Side effects of SGLT2 inhibitors therapy include urinary tract infections, genital fungal infections. These drugs also have a diuretic effect which can lead to the dehydration. Some researches highlight the risks of bone demineralization, cardiovascular complications and ketoacidosis, urinary bladder and breast cancer.

Conclusions. This class of drugs offers a new non-insulin-dependent mechanisms of glycaemia correction in patients with DM type 2 at good tolerability and absence of adverse effect on body weight, the risk of hypoglycemia and other serious side effects.

O. P. Kozlov, S. G. Malanchuk, O. G. Sorokina, D. S. Mikhaylova

THE RELATIONSHIP OF THE RIGHT LOBE' SIZE OF THE LIVER WITH HEMODYNAMIC AND BIOCHEMICAL INDICATORS IN PATIENTS WITH NONALCOHOLIC FATTY LIVER DISEASE IN COMBINATION WITH CARDIOVASCULAR PATHOLOGY

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Relevance. Nonalcoholic fatty liver disease (NAFLD) is one of the most common pathologies in the population. According to different authors the prevalence of NAFLD ranges between 3 and 58%, and among patients with overweight reaches 100%. In the majority of cases (more than 55-80%) NAFLD proceeds as nonalcoholic as nonalcoholic steatohepatitis, and in other cases (20-45%) - in the form of nonalcoholic steatohepatitis. The presence of the latter one largely worsens NAFLD's forecast due to its rapid progress and the development of fibrosis and liver cirrhosis. In conditions of clinical practice both circumstances greatly complicate diagnostics of NAFLD, making the research of the relationship between ultrasound and hemodynamic parameters during NAFLD highly relevant.

Aim. Optimize the diagnostic and forecasting of NAFLD in combination with essential

hypertension and coronary heart disease.

Materials and methods of the research. We tested 46 patients with NAFLD combined with essential hypertension (EH) of I-II degree, and coronary heart disease (CHD) of I-II functional class (the average age of the patients is 44,8 ± 3,6 years, and average record of NAFLD - 6 4 ± 2,6 years). Biochemical parameters were studied on the analyzer «Humalyzer» (Germany), and ultrasound tests - using the diagnostic system «Phillips IU» (USA) with a convex multifrequency transducer (2-5) MHz.

Results. According to the clinical research palpation hepatomegaly is diagnosed in 100% of patients. Bearing in mind that hepatomegaly is stable symptom for the researched contingent; this symptom has been selected for the study of correlation interdependence of NAFLD manifestations. NAFLD patients with EH and CHD were investigated 41 biochemical and hemodynamic parameters including a significant level of correlation which was obtained between the size of the right lobe of the liver and triglycerides ($r = 0,684$, $p < 0,001$), the size of the right lobe of the liver and the level of low density lipoprotein ($r = 0,531$, $p < 0,05$), the size of the right lobe of the liver and the HOMA index ($r = 0,622$, $p < 0,001$), the size of the right lobe of the liver and speed of early diastolic filling of the left ventricular ($r = -0,602$, $p < 0,001$), the size of the right lobe of the liver and speed of late diastolic filling of the left ventricular ($r = -0,509$, $p < 0,05$), the size of the right lobe of the liver and end-diastolic pressure in the left ventricle ($r = -0,668$, $p < 0,001$), the sizes of the right share liver and integral of linear blood flow velocity in the left ventricle ($r = -0,506$, $p < 0,05$).

Conclusion. The calculated correlation coefficients suggest that the pathological processes in the liver and changes in biochemical and hemodynamic parameters have a mutually potentiating impact, and the existence of NAFLD in patients in combination with EH and CHD provokes changes in metabolic and hemodynamic status of patients outside of the liver and heart.

O. G. Sorokina, Y.Y. Zinchenko*

THERAPEUTIC USE OF IMMUNOMODULATORY DRUGS IN THE TREATMENT OF PATIENTS WITH EPSTAIN-BARR VIRUS INFECTION

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Relevance. Currently, a growing interest to the problem of herpesvirus infections, including diseases caused by Epstein-Barr virus (EBV) in particular - Infectious mononucleosis. 80-90% of the world's population observed persistence of the virus, and the infection rate among children is about 50%. The clinical significance of EBV etiology of infectious mononucleosis due to involvement in the pathological process of the immune, lymphatic, cardiovascular, digestive, urinary, nervous and endocrine systems; besides EBV is the etiological agent some of malignant, lymphoproliferative and autoimmune diseases;

Aim. Determine the characteristics of the course of infectious mononucleosis EBV etiology (IM EBV etiology) based on the study of the dynamics of clinical-laboratory and immunological parameters for improved therapies.

Materials and methods of the research. We observed 197 patients with acute IM EBV. The first group (control group) consisted of 103 patients (52.3%) who received basic therapy (pathogenetic, symptomatic, antibacterial). The second group included 94 patients (47.7%), which in addition to basic therapy employed immunomodulatory drug.
All patients who are admitted to the hospital, were examined as standard. They were doing laboratory testing, including a set of generally accepted methods of diagnostics (blood test, urine test, seeding of mucus from the nasopharynx flora, fecal pathogen inoculation).
Immunological examination included: determination of lymphocyte subpopulations (CD3, CD4, CD8, CD16, CD56, CD95, CD20, CD25, HLAII cells) by flow cytometry; Determination of cytokine production by ELISA (IFN-a, IFN-y, IL-4).

Results. Inclusion of immunomodulatory drugs in complex therapy of IM EBV etiology allowed 1.5-2 times significantly reduce the duration of the main clinical syndromes ($p < 0.01$). Using immunotropic therapy helped to avoid complications during the convalescence period.

Conclusion. The use of immunomodulatory drugs in the treatment of patients with acute

infectious mononucleosis EBV etiology, contributes to the positive dynamics of clinical symptoms and normalization of cellular and cytokine components of immune system.

Stroienko K., Khyzhnyak A., Khyzhnyak K.

OPTIMIZATION OF TREATMENT OF COGNITIVE DYSFUNCTION IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION

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Actuality. Acute myocardial infarction (AMI) and its complications are uppermost in the structure of incapacitation and morbidity of population. The course of AMI can be complicated by vascular disorders of the brain which include cognitive disorders as well.

The aim. Optimization of drug therapy of cognitive dysfunction in patients with AMI.

Materials and methods.The study enrolled patients with AMI and cognitive dysfunction under 60 years of age. Verification of diagnosis was carried out in accordance with valid protocols. Additionally,C-reactive protein and blood cortisol were studied. Cognitive disorders were assessed according to the findings of neuropsychological tests. Depending on therapy kind, the patients were divided into 3 groups. Group 1 was represented by patients undergoing a standard scheme of treatment in AMI. The patients of group 2 received the standard scheme of treatment along with tiazotic acid. The standard scheme of treatment together with succinic acid was provided for group 3.

Results. In the course of the study an emphasis was laid on use of antihypoxants (tiazotic acid, succinic acid) in combination with quercetin in order to correct cognitive insufficiency in patients with AMI. To estimate course and prognosis of the disease the indices of cortisol and C-reactive protein of the blood within the first 24 hours of the disease were used.

As a result, increased cognitive disorders at the beginning of the disease and significant reduction of these indices in standard treatment along with antihypoxants were observed in patients. Increased cognitive functions resulting from the therapy carried out by means of antihypoxants were observed as well. It is proved by repeated neuropsychological tests and normalizing of cortisol and C-reactive blood protein .

Conclusion. Disorders of higher mental processes (memory, praxis, gnosis, speech, executive functions) belong to cognitive disorders. Consequently, early diagnosis and correction of them in patients will result in favorable prognosis of course of the disease and improvement of the quality of life. The use of tiazotic acid, succinic acid along with quercetin for correction of cognitive insufficiency in patients with AMI claims our constant attention.

Sypalo Ann

DEFINITION OF SORTILIN IN OPTIMIZING THE DIAGNOSIS AND TREATMENT OF DYSLIPIDEMIA IN PATIENTS WITH ISCHAEMIC HEART DISEASE AND TYPE 2 DIABETES MELLITUS

Ischaemic heart disease is one of the major problems of modern cardiology in all advanced countries of the world. The diabetes mellitus type 2 is a marker of risk of diseases of the circulatory system. The role of sortilin is considered as a marker of risk of dyslipidemia in patient with ischaemic heart disease and type 2 diabetes mellitus.
The purpose is to optimize the diagnosis and treatment of ischaemic heart disease and type 2 diabetes based on the study of sortilin, insulin, carbohydrate metabolism, lipid profile and indices cardiohaemodynamics.

Material and methods. There will be used subjective (complaints, anamnesis of disease and life) and objective methods (examination, palpation, percussion, auscultation), biochemical methods, angiography of coronary arteries.

Results. Study sortilin will be used as a diagnostic marker of dyslipidemia in patients with coronary heart disease and type 2 diabetes. Non-invasive study of atherosclerosis of coronary artery disease in patient with ischaemic heart disease and type 2 diabetes mellitus and will be used different sortilin level and type of dyslipidemia in examined patients. There will be planned to assess the impact sortilin on the progression of atherosclerosis and to define the role of sortilin in the formation of different types of dyslipidemia in examined patients. It will be analized the hypolipidemic effect of using the combination of statins with fibrates and omega-polyunsaturated fatty acids in patients with ischaemic heart disease and type 2 diabetes mellitus on the background of conventional therapy.

Tabachenko Olena

EFFECTS OF APELIN-12 IN THE DYNAMICS OF AMBULATORY BLOOD PRESSURE MONITORING FOR PATIENTS WITH ARTERIAL HYPERTENSION DEPENDING ON THE PRESENCE OR ABSENCE OF AN UNDERLYING TYPE 2 DIABETES

Increased blood pressure (BP) is detected in 80% of patients with diabetes mellitus type 2. Type 2 diabetes leads to the development of severe debilitating complications based on the formation, which is primarily the defeat of different caliber vessels. The effect of adipokines in patients with type 2 diabetes on BP is of interest. In this connection interesting is apelin-12 which exhibits hypotensive and inotropic effects and stimulates the utilization of glucose has antiatherogenic effects.
The purpose of this research is to evaluate changes in indices of BP daily monitoring and the level of apelin-12 in patients with hypertension depending on the presence or absence of concomitant type 2 diabetes for the analysis of apelin-12 effects on BP values.

Materials and methods. The study examined 105 patients with arterial hypertension. The study group included 75 patients with a combination of hypertension and type 2 diabetes (mean age 60,03 ± 1,17). The comparison group consisted of 30 hypertensive patients without type 2 diabetes (mean age 57,1 ± 2,23). Apelin-12 was determined by ELISA using a commercial test system «Human Apelin 12 (AP12) ELISA Kit», China.

Results and discussion. Hyperapelinemia has a hypotensive effect in patients with hypertension and type 2 diabetes. Insulin resistance leading to decompensating of type 2 diabetes with increasing plasma glucose and glycosylated hemoglobin is more meaningful than apelinemia. The result is the BP increase due to the systolic and diastolic BP in patients with hypertension and type 2 diabetes. More likely an increase of systolic BP in patients with hypertension and type 2 diabetes is associated with the increase in glycosylated hemoglobin, and is less likely the increase of diastolic BP is caused by a partial leveling of the negative impact of diabetes apelinemia.

Conclusions. Apelin-12 is directly involved in the regulation of glucose metabolism and BP in patients with hypertension and type 2 diabetes.

Talalaienko O.K., Romanenko O.

MILD PREECLAMPSIA AS A RISK FACTOR OF OBSTETRIC COMPLICATIONS

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Actuality. For a long time preeclampsia is a major cause of maternal and perinatal morbidity and mortality. Mild preeclampsia usually does not lead to fatal consequences, however adversely affect the course of pregnancy which leads to the emergence of many obstetric complications. This problem is actual for family physicians and cardiologists because of necessity to carry out careful monitoring of this group of patients. These specialists provide care to these women.

Aim of the study. To assess the effect of mild preeclampsia on the development of obstetric complications. Bring the significance of this problem for family physicians and cardiologists.

Materials and methods. Retrospective analyses of 92 clinical cases, randomly selected from the archives of the birth histories were reviewed. 36 cases of healthy patients and 56 cases of birth with mild preeclampsia were analyzed. Data delivery and postpartum complications were studied. Frequency of occurrence of disease was calculated. The reliability of differences was assessed by Student's test with significance level ($p < 0.05$).

Results. It has been found that the uterine inertia was detected in 11 (19,6 ± 5,3%) women with preeclampsia and 1 (2,8 ± 1,3%) in the case of healthy patient. Placental abruption in labor was in 1 (1,8 ± 0,6%) mother with a diagnosis of preeclampsia, and was not common in women with physiological pregnancy. Fetal distress during labor has been established in 9 (16,1 ± 4,9%) pregnant women with preeclampsia and in 1 (2,8 ± 1,3%) healthy mother. Consequently a cesarean section in pregnant women with preeclampsia was performed in 11 (19,6 ± 5,3%) patients and in 1 (2,8 ± 1,3%) case of healthy woman. The number of normal births declined to 55.4 ± 6.6% and 94.4 ± 3.8%, respectively.

Conclusions. Official guidelines do not include any treatment of mild preeclampsia but recommend cardiologist consultation. In pregnant women with mild preeclampsia compared with healthy women was observed statistically significant increase in the development of obstetric complications. As a result, there is a decrease in the number of normal deliveries. Thus, it is necessary to develop special tactics of pregnancy and childbirth in this category of

patients and their monitoring by cardiologists and family physicians.

Teclebrhan Mosay Berihu, Lermak Alexandra Sergeiyevna

BEHCET'S DISEASE

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Actuality: Behcet's is a rare form of vasculitis that affects small and medium sized vessels, but it also owes it's lethal damage to it's affinity for affecting large vessels as well. Mainly occurs in the ages between 20-40, in Middle Eastern people and South East Asians, in Turkey(400/100,000 cases were reported anually), Iran, Saudi Arabia, Greece, Japan, Korea and China , there have also been reports of it affecting people in Western societies namely in the USA(1/170,000 cases were reported). Predominantly males are affected by the disease in the middle eastern countries, while in south east asian and western countries, females are most affected by the disease. It's an interesting disease in such that it needs to be differentiated from other forms Vasculitis, autoimmune disorders, infectious diseases and other deficency related syndromes etc. It is known that 80% of the people with the disease have an increased HLA-B51 allele count, this allele is usually found in people of Middle Eastern and South East Asian origin, while in patients of Western origin it has been proved that they lack this allele, instead in about 49% of these patients they have an increase in HLA-DRB1.

Aim: Trying to understand the principle of" diagnosis of exclusion" of all other possibile diseases which may mimic Behcet's disease or vice versa.

Material And Methods: A general physical examination & proper clerking of a patient with the disease proves to be benefical in the long of run of trying to diagnose the disease, as the manifestations of Behcet's may lack specifity in some patients but not all ,further methods that can be used are laboratory methods such as CBC,PCR,genetic screening for the allele, Imaging method's such as MRI w/T2weighting, MRI-angiography, CT-scan, Angiograms,Pathergy's Test, CSF, and biopsy of the lesions.

Result: Pathergy's test is usually positive in most patients, except for Westerners, it shows only one-third of people suffering from the disease test positive, MRI and CT show either acute or chronic progressive lesions of the brain, angiograms & MRI angiography show the extent of vascular damage

caused by Behcet's, Biopsies are done to rule out other pathologies .CSF fluid analysis reveals both neutrophilic and lymphocytic nature of pleocytosis in the case of meningoencephalitis caused by Behcet's, this helps exclude either bacterial or viral origin of encephalitis.

Conclusions: The principle of using "diagnosis of exclusion" in Behcet's Diseases is due to the fact that the disease in itself mimics other diseases and vice versa. The rarity of the disease leads to it being misdiagnosed and often poorly treated ,hence it's most lethal manifestations take course swiftly.

Turmanidze Ketevani Iraklievna

BIOMARKERS OF LEFT VENTRICLE REMODELING IN OVERWEIGHT PATIENTS WITH ESSENTIAL HYPERTENSION

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Aim of our investigation was studying of cytokines activity in overweight patients with essential hypertension depending on peculiarities of left ventricle remodeling.

Material and methods: 20 patients were examined. Age 30-80. Standard clinical, laboratory and instrumental methods were used. Oncostatin M and IL-6 were measured using ELISA Kit, RayBiotech, Inc. Ultrasound of the heart was performed in accordance with the recommendations of the European and Ukrainian Association of Echocardiography. Relative wall thickness (RWT) that reflects geometrical changes of left ventricle (LV) was calculated as RWT=(posterior wall thickness (PWT)+interventricular sept thickness (IVT)) / diastolic size). Patients were divided according to gender and changes in relative wall thickness (RWT).

Results: the most part of patients had moderate changes of RWT. According to our investigation, LV remodeling was developed rateably to anamnesis of the disease and SBP. Patients with increased RWT were characterized by significantly higher levels of Oncostatin M 27,53±2,43 and IL-6 20,01±1,61 comparing to control group (7,90±0,13 and 2,58±0,13), and ones with normal RWT (20,00±3,44 and 15,28±1,68). Correlation analysis showed positive

relationship of Oncostatin M, IL-6 with SBP, DBP (r=0,43, and r=0,55 correspondently, p<0,05), anthropometric measurements (waist ratio - r=0,74, p<0,05) and parameters of LV remodeling (LV myocardial mass r=0,45, p<0,05) in patients with essential hypertension.

Conclusion: results of our investigation showed involvement of oncostatin M, IL-6 in process of LV remodeling in overweight patients with essential hypertension.

Viltsaniyk O.O., Viltsaniyk O.

COMMUNITY ACQUIRED PNEUMONIA AND OPIOID DRUG ADDICTION: CLINICAL COURSE AND TREATMENT RESULTS

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Actuality. The problem of treatment community-acquired pneumonia (CAP) is one of the most actual health and social issues.

Aim. To define features of flow and effectiveness of community-acquired pneumonia treatment by traditional methods in patients with opium drug addiction.

Matherials and methods. The object of the study was 89 patients with severe CAP. Patients were divided into two representative group: the main group (42 patients with opium drug addiction and CAP) and comparison group (47 patients with severe CAP). The study of changes in the internal organs conducted in 32 died drug addicted patients. The study of changes in the internal organs in CAP conducted on experimental pneumonia on 35 rats. Evaluation of treatment results was carried out by the laboratory, biochemical tests, enzyme-linked immunosorbent method, microbiological studies and morphological studies, determined the level of endogenous intoxication (EI).

Results. The study found that severity of disease is caused by the presence of hidden polyorgan pathology on patients with opium addiction to which also added intoxication syndrome, due to the lungs inflammation, which by itself leads to damage of internal organs. It was established that pneumonia in these patients is caused by highly virulent, antibiotic resistant bacteria and fungi, susceptible to antiseptics. Using of the conventional methods of CAP treatment have low efficiency and is accompanied by the prolonged hospitalization of patients, leads to the development of destructive

changes in the lungs and is associated with high mortality.

Conclusions. CAP in patients with opium drug addiction has severe flow with the development of systemic inflammatory response syndrome (higher than in comparison group (p <0,05)). Severity of CAP in patients of the main group is associated with presence of multiple organ pathology. Traditional approaches to the treatment of severe CAP in that patients requires significantly (p<0,05) longer hospitalization, corsed by a frequent development of destructive changes in the lungs and higher mortality.

Vivcharuk Yaryna Vasilyvna

MENSTRUAL IRREGULARITIES IN WOMEN OF REPRODUCTIVE AGE WITH HYPOTHYROIDISM AGAINST THE BACKGROUND OF AUTOIMMUNE THYROIDITIS

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Actuality: The structure of endocrine diseases are among the leaders thyroid pathologies (48.67%), of which a large part is autoimmune thyroiditis. Autoimmune disease tyreoyidyt-autoagressive, autoimmunization thyroid antigens morphological manifestation of which is plazmotsytarna and lymphoid infiltration of the thyroid gland, Autoimmune tyreoid disease is important for women of childbearing age, pathology of function results pathology of ovario-menstrual cycle, infertility, pregnancy pathology and has a negative impact on mental health-Ner.

Aim: To investigate violations ovario-menstrual cycle in women with autoimmune thyroiditis with reduced function.

Materials and methods: To achieve the goal were observed 90 female outpatients Vinnytsia region aged 15 to 35 years with the disease at the AIT VOKED for 2015

Results: We found that disease duration in women was: up to 6 months - in 18 women (20%) 6 months-1 year -23 (25.6%), 1-5 years, 37 (41.1%), 5-10rokiv-12 (13.3%). U67 women diagnosed with hypertrophic studied form of AIT (74.4%). The 23 women- Atrophic form of AIT (25.6%). Complaints that occur in women discomfort and compression of the neck in 67 (74.4%)., Excess body weight, 70 women (65%) Dry skin- 65 (72.2%).

constipation- 78 (86 .6%). Tachycardia-50 (55.5%). Puffiness of face-to-54 (60%). decreased physical activity- 85 (94.4%). The level of thyroid hormones on first addressed was: 9,06-30,84mkmol TSH / ml; free T4 0,56-4,35; ATdo 65-329,6 garbage. The beginning of the menstrual function, 11-13 years - in 45 women (50%), 13-15 years, 36 (40%),> 15 years, 9 (10%). With ultrasound diagnosed investigated as follows: increase in thyroid volume 67 women (74.4%) decrease in volume in 23 (25.6%). The presence of units in 78 women (86.6%). Heterogeneity ehostruktury in 90 women (100%) of women surveyed in there menstrual cycle as: dysmeonreya-in 65 women (72.2%), primary amenorrhea -5 (5.55%), secondary amenorrhea-30 (33.3 %), oligomenorrhea-38 (42.2%)

Conclusion: Based on the processed information can conclude that in women of reproductive age with hypothyroidism AIT against the backdrop of the most common form of irregular menstruation is dysmenorrhea, often - oligomenorrhea and amenorrhea often -secondary

Yermak Oleksandra Sergiivna, Borzova-Kosse Sofia, Adamsky Mark

DYNAMICS OF COPEPTIN AND CARDIOHAEMODYNAMIC'S INDICATORS IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION WITH OBESITY

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Acute myocardial infarction (AMI) - is leading nosology in the structure of coronary heart disease (CHD). Nowadays the attention of researchers aimed at identifying the impact of obesity as a risk factor for cardiovascular disease and as a factor that contributes to the progression of CHD. The imbalance of vasoconstrictor and vasodilator systems in patients with AMI and concomitant obesity plays a dramatic role in the progression of these diseases explains studying of copeptin is promising in this cohort of patients.

The purpose of the present research is to optimize AMI diagnosis by examining the copeptin's dynamics in patients with AMI depending on the concomitant obesity, and to analyze the relationship between this marker and cardiohaemodynamic's indicators.

Research methods. The study included 80 patients with AMI, among which 50 patients were diagnosed obesity, 30 people had normal body weight. Body mass

index (BMI) was determined by the formule: BMI (kg/m2) = weight/(height) 2. Copeptin determined by ELISA using a set of reagents «Human Copeptin» (Biological Technology, Shanghai). Echocardiography was performed to all patients . 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. Statistical significance was determined by various secondary criterion F - Fisher. Analysis of relationships conducted using Spearman's correlation (r).

Results. Copeptin's level was significantly higher in patients with AMI and obesity(129,6%) compared with patients without obesity. Hemodynamic parameters also found differences in patients with AMI and obesity: the end-diastolic volume's(EDV) level was higher by 20,4%,the end-systolic volume's(ESV) – by 28,5%, the end-diastolic diameter (EDD) – by 15,5%, the end-systolic diameter– by 17,6% and the ejection fraction (EF) lower by 15,1% compared with patients without obesity. We found a direct correlation between copeptin and EDV (r = 0,25, p <0,05), ESV (r = 0,36, p <0,05), EDD (r = 0,47, p <0,05) and inverse correlation with EF (r = -0,23, p <0,05).

Conclusions. Copeptin's level was highier in the presence of obesity in patients with AMI. Increased copeptin's level associated with left heart cavities dilatation and reduced contractility in patients with AMI and concomitant obesity."

Yeryomenko G.V.

THE ROLE OF VON WILLEBRAND FACTOR IN THE DEVELOPMENT OF INFLAMMATION IN PATIENTS WITH ASTHMA

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Introduction: Metabolic diseases and respiratory occupy leading positions in Ukraine.

Objective: To determine the role of von Willebrand factor (vWF) in the development of endothelial dysfunction in patients with asthma of moderate severity is not controlled with and asthma without diabetes type 2.

Materials and methods: Involved 103 patients and a control group of 15 patients. All patients were divided into 2 groups: main group - asthma patients without diabetes type 2 and group comparisons of asthma in combination with diabetes type 2. In addition to general clinical examination in all patients studied features of asthma using a

questionaire for quality of life ACQ-5 asthma symptoms, as well as examined the external respiratio function (ERF), vWF is determined by a set of TECHNOZYM® vWF: Ag ELISA.

Results: In the group with combined pathology observed violation of spirometry on the mixed type: a moderate decline in FEV_1, and all the high-speed performance combined with a fairly pronounced decline in rates vital capacity (VC), FVC. Obtained significant differences between the indicators ERF in patients with asthma and patients with comorbidity ($p < 0,05$). The correlation analysis between the clinical course of the disease and the functional data and laboratory tests showed a positive correlation with the number of night attacks and vWF ($r = 0,76$) and negative - FEV_1 and vWF ($r = 0,65$) in patients with primary and combined groups.

Conclusions: Increased levels of von Willebrand factor is an early predictor of endothelial damage in patients with asthma. BA combination with type 2 diabetes leads to the progression.

Zaikina T.S., Butrimova I.A.

MARKERS OF COMPLICATED COURSE OF ACUTE MYOCARDIAL INFARCTION IN PATIENTS WITH CONCOMITANT DIABETES MELLITUS TYPE 2

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Actuality. Mortality among patients with AMI and diabetes mellitus is higher than in patients without diabetes mellitus, but the markers of complicated course are still unknown.

The aim is to establish the markers of complicated course of acute myocardial infarction (AMI) in patients with concomitant diabetes mellitus type 2 based on the estimation of endothelial damage markers – von Willebrand factor, sVE-cadherin and sCD40-ligand.

Materials and methods. 70 patients were enrolled in this study. They were divided in two groups: I group- 23 patients with complicated course of AMI; II group- 47 patients with uncomplicated course of AMI. Levels of von Willebrand factor, sVE-cadherin and sCD40-ligand were evaluated using immunoassay analysis twice at the first and tenth days of AMI. Statictical analysis was made with the evaluation of average levels (M), error of the average level (m), reliability of

differences (p) between parametrical samples.

Results. Average levels of von Willebrand factor in the I group were significantly higher than in II group – 2,12±0,06 ng/ml and 1,94±0,03 ng/ml accordingly (p<0,01). Insufficient reduction of this parameter under the influence of treatment was also associated with development of complications (-14,6±1,1% and -18,1±0,8% accordingly (p<0,01). Insufficient reduction of sCD40-ligand levels correlated with complicated course of AMI in comparison with patients without complications (-16,3±1,7% and -22,5±1,5% accordingly (p<0,01). There were no differencies in levels of sVE-cadherin in two groups (1,82±0,04 ng/ml and 1,75±0,04 ng/ml accordingly (p>0,05).

Conclusion. Complicated course of acute myocardial infarction (AMI) in patients with concomitant diabetes mellitus type 2 is associated with higher levels of von Willebrand factor and insufficient reduction of this parameter under the influence of treatment which confirm negative impact of endothelial damage.

Zaikina T. S., Dielievska V. Yu., Jeena Justin

ALDOSTERONE INVOLVEMENT IN CHRONIC HEART FAILURE DUE TO CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Aim: To evaluate the effect of aldosterone on lung function in patients with chronic obstructive pulmonary disease (COPD) in combination with arterial hypertension (AH).

Materials and methods: The study involved 55 patients with COPD 2 and 3 degrees of airflow obstruction with concomitant AH of the 2nd stage. The diagnosis of COPD of groups B and C was set according to GOLD 2014 guidance. AH was diagnosed in accordance with the ESH / ESC criteria. The comparison group consisted of 25 patients with AH 2 stage. 20 healthy volunteers, matched for sex and age, served for the control group. Patients performed clinical, laboratory tests, spirometry and determination of the level of aldosterone by enzyme immunoassay.

Results: Aldosterone levels in patients with chronic obstructive pulmonary disease and hypertension were significantly higher than of the control group (63,2 ± 3,4 and 43,1 ±

1,2 pg / ml, respectively, p <0.05). Patients of the studied group showed higher aldosterone levels than patients with isolated AH (63,2 ± 3,4 as compared to 56.2 ± 2.21 pg / ml, p = 0,023). Differences in serum levels of aldosterone in the progression of bronchial obstruction has not been found, though they tended to increase (p> 0.05). Serum aldosterone showed a negative correlation with forced expiratory volume in 1 second (r = -0,32; p = 0.034), vital capacity (r = -0,34; p = 0.022) and peak expiratory flow volume (r = -0,62; p = 0.002). As in the literature there is experimental evidence that the lung epithelium is a physiological target tissue for aldosterone, we can assume fibrosing influence of aldosterone on the structure of the lung tissue.

Conclusions: Increased aldosterone levels in patients with chronic obstructive pulmonary disease in combination with arterial hypertension are associated with worsening of lung function that may be used to predict bronchial obstruction in these patients.

Zaozerskaya N.V., Iraki Hamza

QUALITY OF LIFE AND PSYCHOLOGICAL TRAITS OF CHARACTER IN PATIENTS WITH DIFFERENT KIND OF CARDIOVASCULAR PATHOLOGY

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Introduction: Cardiovascular diseases are very common diseases in human population. Essential hypertension and coronary artery disease (CAD) may deteriorate the quality of patient's life, has an impact as on physical so on emotional status of the patients. The purpose of this research investigation is to learn and estimate influence of the clinic-psychological factors on the quality of life of patients with cardiovascular pathology.

Methods: We used Short Form Health Survey-36 (SF-36) questionnaire, psychological tests: Spielberg, EPI, Schmieschek, socio-demographics and clinical parameter characteristics for examination of the patients with cardiovascular diseases (CVD): essential hypertension (EH), CAD. Subjects were examined in the Kharkov Regional hospital. The study enrolled 15 patients with EH and 12 pts with CAD and heart failure. 10 healthy persons were observed as control group. M-69%, F-31%; mean age in group with EH - 53.7 years, CAD – 56.8 patients: 6 – angina pectoris, 6– atherosclerotic cardiosclerosis.

Results: Worsening of quality of life was revealed in both groups EH and CAD. For people with EH more pronounced decreasing of role physical functioning, general health perceptions, role limitations due to emotional problems and norm -

based general mental health was detected. For EH group: physical functioning, general health perceptions, vitality, energy or fatigue, bodily pain were more significantly marked. Personal psychological status of the patients with EH showed more high level of introversion, and high level of personal anxiety and situational anxiety were found in patients with CAD. Choleric and melancholic patients were revealed in EH group, sanguine and phlegmatic – in CAD group.

Zhuravlyova A., Ognieva O.

NONINVASIVE DIAGNOSIS OF LIVER FIBROSIS IN PATIENTS WITH CHRONIC LIVER DISEASE

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Introduction: liver fibrosis is known to be a pathological process that is considered to be consequence of a lot of liver insults that causes chronic liver injury. Hepatic fibrosis can occur in response to viral, immune, and toxic-metabolic insults and consists of an accumulation of fibrillar extracellular matrix (ECM) components. It is mostly considered to be irreversible because it is just like a silent killer as it doesn't show any particular signs and symptoms. But early diagnosis could be helpful as in early stages it is somehow reversible and doesn't progress to serious liver involvement.

Aim: to estimate the usage of non-invasive diagnostic tests in patients with chronic liver diseases for finding early morphological changes in liver.

Materials and Methods: different non-invasive methods were studied to access their ability to estimate the degree of liver damage due to fibrosis.

Discussion: novel technologies such as transient hepatic elastography and magnetic resonance imaging (MRI) elastography show promise as noninvasive methods of testing for hepatic fibrosis but they have small value in identifying early stages of fibrosis and low-grade inflammation. Separate investigation of direct and indirect serum markers of synthesis and degradation of ECM do not correspond to the exact organ or stage of the process. Combination of these serum markers is used to access the liver function and the rate of inflammation in the way of different panels interpreted with scoring systems. Fibrotest is used for

quantative and qualitive diagnosis of liver fibrosis and Aktitest to assess the necroinflammatory activity, and the panel FibroMaks in addition includes diagnostic algorithms Steatotest to determine the stage of steatosis, Ashtest to determine the degree of activity of alcoholic steatohepatitis and Nashtest to evaluate the stage of nonalcohol steatohepatitis in patients with metabolic syndrome. These methods have high specificity and sensitivity if compare results to liver biopsy, but still cannot replace this procedure which is considered to be a «gold standard».

Conclusions: in cases when liver biopsy cannot be performed or there is need in early diagnosis of morphological liver changes doctors may use new non-invasive techniques that are quite reliable and relevant for the liver disease diagnosis.

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