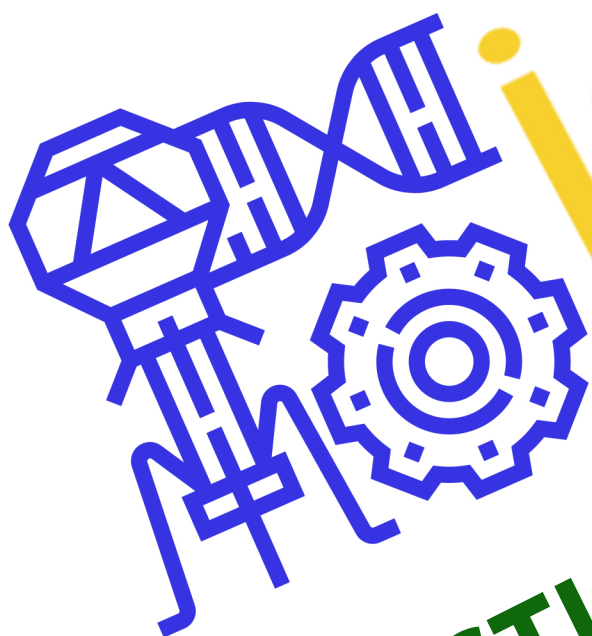


# **KHARKIV NATIONAL MEDICAL UNIVERSITY**

# **ISIC-2019**



**KHARKIV NATIONAL  
MEDICAL UNIVERSITY**



# **INFECTIOUS DISEASES**



test system "VectoToxo-IgG-avidity". We performed parallel estimation of Index of Avidity of IgG to *T. gondii* by IEA in blood serum and CSF.

Results. Finally, specific IgG to *T. gondii* in the blood serum of our patients were found in 27 patients (90 %). In serum of all patients who had positive result by IEA, specific antibodies IgG to *T. gondii* detected in high concentrations and avidity more than 40 %, and we considered the fact as a presence of chronic infection. In the same time, CSF tests showed presence of specific IgG to *T. gondii* was found only in 7 (23 %) patients. Important, that in all patients showed presence of IgG to *T. gondii* in CSF, they also were present in blood serum samples, taken in the same time. Our results suggest impossible isolated appearance of specific antibodies to *T. gondii* in CSF in case of their absence in a blood serum. In patients, whose blood serum only showed presence of IgG to *T. gondii* with negative results of CSF tests, in further process of diagnostics and a treatment diagnosis of cerebral toxoplasmosis was not proved.

Conclusion. Method of parallel detection of avidity of IgG to *T. gondii* by IEA in CSF and in blood serum can be useful in order to improve specific diagnostics of CT in HIV – infected patients with IV clinical stage. High informative capacity of test system for detection of index of avidity of IgG to *T. gondii* can be used in algorithm of specific diagnostics of neuroinfections in HIV – infected patients.

*Nechyporuk Iryna, Zyrianov Victor, Railian Marina*  
Kharkiv National Medical University  
Department of Epidemiology  
Kharkiv, Ukraine

Scientific advisor: prof. Chumachenko Tetyana, as.prof. Semishev Victor

### **EVALUATION OF ANTIBIOTIC RESISTANCE OF STAPHYLOCOCCUS STRAINS ISOLATED FROM PATIENTS IN HOSPITAL OF RAYON LEVEL, KHARKIV OBLAST, UKRAINE**

Introduction. Antimicrobial resistance is a global threat to human health, which continues to grow worldwide every day. Antibiotic resistance of *Escherichia coli*, *Klebsiella pneumoniae*, *Pseudomonas aeruginosa*, *Staphylococcus aureus* (*S. aureus*), which have epidemiological significance, reaches a critical point. It becomes difficult to

ensure the successful conduct of surgical interventions and further treatment of patients of medical setting.

Microbiological monitoring in hospitals allows to study the spectrum of microorganisms circulating in a hospital, evaluate the biological properties of pathogens, including antibiotic resistance, and timely reveal the occurrence of hospital strains of microorganisms.

**Aim.** To study the antibiotic resistance of *Staphylococcus* Strains, circulating in the Central rayon hospital (CRH) of the Kharkiv oblast during microbiological monitoring.

**Materials and methods.** The results of the one of stages of microbiological monitoring, which included a bacteriological investigation of clinical specimens, obtained from patients with suspected bacterial infection, were evaluated. The results of a bacteriological investigation of 42 clinical samples (urine, swabs of the upper respiratory tract, specimens of the wound discharge), obtained from patients of the outpatient, therapeutic and surgical wards of the CRH in Kharkiv oblast, in 2016-2018.

Antimicrobial susceptibility testing of *Staphylococcus* isolates was conducted by the disk - diffusion technique.

**Results.** Strains of *Staphylococcus* (*S. aureus* (62.5 %), *S. saprophyticus* (12.5 %), *S. epidermidis* (25 %)) were isolated in 24 (57.1 %) clinical samplings from 42. *Staphylococcus* strains were isolated from the wound (45.8 %). The proportion of isolated from urine was 20.8 %, from upper respiratory tract – 33.3 %. There was the high proportion of antibiotic-resistant strains among *Staphylococcus* strains that were identified. Proportion of resistant *Staphylococcus* strains to the cephalosporins group ranged from 4.2 % to 12.5 %, while the most pronounced resistance was to third-generation cephalosporins (cefoperazone to 12.5 %). The proportion of *Staphylococcus* resistant strains to quinolone and fluoroquinolone groups ranged from 4.2 % to 41.7 %. Resistance to levofloxacin reached of the highest proportion among isolated strains (41.7 %). Proportion of resistance *Staphylococcus* strains to norfloxacin and ciprofloxacin was 4.2 %.

Proportion of resistance *Staphylococcus* strains to antibiotics of the beta-lactam group ranged from 4.2 % to 25 %. Resistance to oxacilin was 25 % of strains. 95.8 % of researching strains were sensitive to aztreonam. *Staphylococcus* strains were resistant to



antibiotics of the aminoglycoside group within 8.3 % to 20.8 % and 16.7 % of strains were resistant to penicillin.

Conclusion. Number of bacteriological studies which was carried out for three years indicates low capacity of the laboratory in CRH of the Kharkiv oblast. Frequent detection of *Staphylococcus* strains from patients' wounds can explain the presence of purulent-septic complications after operations. Because of this it is necessary to improve infection control to prevent outbreaks of healthcare associated infection in hospitals. *S. aureus* prevailed in the structure of circulating *Staphylococcus*. This pathogen has a significant pathogenic potential and high resistance to antibiotics of different groups. Therefore, antibiotic therapy should be prescribed to patients only for strict indication and according to antibioticogram.

*Olga Shvets, Yelysaveta Hromova*  
Kharkiv National Medical University  
Department of Phthysiology and Pulmonology  
Kharkiv, Ukraine  
Scientific advisor: prof. Olga Shevchenko

### **STUDY OF INSULIN RESISTANCE IN DRUG-SUSCEPTIBLE PULMONARY TUBERCULOSIS PATIENTS BEFORE AND DURING ANTITUBERCULAR THERAPY**

**Aim** The study was performed to reveal initial insulin resistance in drug-susceptible newly diagnosed pulmonary tuberculosis patients and to evaluate its dynamics during the first month of antitubercular therapy.

**Materials and methods.** The study was performed on 45 patients aged 20 - 60 years (34 men (75.5%) and 11 women (24.5%)) with new cases of pulmonary TB. Group I - 23 non-insulin resistant patients (HOMA-IR index < 2.7); Group II – 22 insulin resistant patients (HOMA-IR index > 2.7). The excluded criteria were: drug-resistant TB, body mass index > 25 kg/m<sup>2</sup>, comorbid diseases (HIV/AIDS, DM, liver diseases, cancer diseases, and alcohol consumption). Patients were treated with standard treatment four-component scheme (Isoniazid, Rifampicin, Ethambutol and Pyrazinamide).

**Results.** Baseline median fasting insulin level in non-IR-patients was 7.95 mcU/ml and we found it not significant increase after 30 days of ATT (up to 11.85 mcU/ml). At the

OSTROVSKA ANNA .....	196
<i>CLINICAL CASE: USAGE OF LEVOKOM RETARD FOR PARKINSON'S DISEASE</i> .....	196
RADCHENKO TETIANA .....	197
<i>ANALYSIS OF PREMORBID FEATURES OF WOMEN WITH OPIOID DEPENDENCE</i> .....	197
RUSANOV OLEH .....	200
<i>THE ROLE OF SEX HORMONES IN THE PATHOGENESIS OF MENSTRUAL MIGRAINE</i> .....	200
SHROLYK KATERYNA, KORDIUMOVA ANASTASIA .....	202
<i>HILDEBRANT INDEX AS AN INDICATOR OF THE AUTONOMIC NERVOUS SYSTEM OF KHNMU STUDENTS</i> .....	202
STARODUBTSEVA YULIIA .....	203
<i>CLINICAL FEATURES OF ADAPTATION DISORDERS IN PEOPLE WITH COMPUTER DEPENDENCY</i> .....	203
SUFIAN AL JANABI, LILIIA KOROVINA .....	204
<i>PARTICULARS OF THE COMPILATION OF PSYCHO-REHABILITATION PROGRAMS FOR MENTALLY ILL CRIMINALS</i> .....	204
TETIANA IVANITSKA .....	206
<i>USE OF MUSIC THERAPY FOR THE TREATMENT OF ANXIETY IN NEUROTIC PATIENTS. PRIORITY MUSIC GENRES IN MUSIC THERAPY</i> .....	206
YUNTSOVA KATERYNA, YURKINA IRYNA .....	208
<i>ANXIETY DISORDERS IN YOUNG WOMEN WITH CLINICAL MANIFESTATIONS OF DEPRESSION</i> .....	209
<i>FEATURES OF TREATMENT OF DEMENTIA IN MODERN CONDITIONS</i> .....	210
AHUNDOVA GYELLA .....	213
<i>CLINICAL-IMMUNOLOGICAL FEATURES OF CHLAMYDIA PNEUMONIA AT CHILDREN</i> .....	213
ANMOL GUPTA, YULIIA POLYVIANNA .....	214
<i>ADVANCEMENT IN PREVENTION OF DENGUE FEVER IN INDIA</i> .....	214
DASHCHUK ANDRII, DERKACH YULIIA .....	215
<i>ETHIOPATHOGENESIS OF ACNE</i> .....	215
HVOZDETSKA-SHAAR MARYNA .....	217
<i>THE ETIOLOGICAL STRUCTURE OF NEUROINFECTIONS IN HIV-INFECTED PATIENTS WITH 4TH CLINICAL STAGE</i> .....	217
KUMAH RUTH JADU .....	219
<i>BABESIOSIS: IMMUNOASSAY POINT-OF-CARE TESTING</i> .....	219
LESNA ALINA .....	220
<i>FEATURES OF THE SPECIFIC TREATMENT OF HIV-INFECTED PATIENTS</i> .....	220
MANPREET SINGH, AMOO-MENSAH AMANDA .....	221
<i>THE FIGHT AGAINST ANTIBIOTIC RESISTANCE; SHOULD PHAGE THERAPY BE MORE PURSUED?</i> .....	221
MARGARITA ARTEMENKO, KATERINA KONOVALOVA, YULIIA POLYVIANNA .....	222
<i>ONE HEALTH PARADIGM VIEW OF SALMONELLOSIS IN UKRAINE</i> .....	222
MARTYNIENKO ANASTASIA .....	224
<i>ESTIMATE OF MEASLES MORBIDITY IN UKRAINE</i> .....	224
MYDLOVETS VICTOR .....	225
<i>IMPROVEMENT OF SPECIFIC DIAGNOSIS OF CEREBRAL TOXOPLASMOSIS IN HIV – INFECTED PATIENTS</i> .....	225
NECHYPORUK IRYNA, ZYRIANOV VICTOR, RAILIAN MARINA .....	226
<i>EVALUATION OF ANTIBIOTIC RESISTANCE OF STAPHYLOCOCCUS STRAINS ISOLATED FROM PATIENTS IN HOSPITAL OF RAYON LEVEL, KHARKIV OBLAST, UKRAINE</i> .....	226
OLGA SHVETS, YELYSAVETA HROMOVA .....	228
<i>STUDY OF INSULIN RESISTANCE IN DRUG-SUSCEPTIBLE PULMONARY TUBERCULOSIS PATIENTS BEFORE AND DURING ANTITUBERCULAR THERAPY</i> .....	228
POCHENINA VALERIIA .....	229
<i>HYPERHIDROSIS AND ITS TREATMENT</i> .....	229
SAJAN P. VIJAYAN .....	230
<i>CLINICAL CASE OF MULTIDRUG RESISTANT TUBERCULOSIS: PERSPECTIVE OF UP TO DATE TREATMENT</i> .....	230
YAKOVLEV KATERINA, MATVIEV SERGEY, LAVROVA ANASTASIYA .....	232
<i>HUMAN SALMONELLOSIS IN KHARKOV REGION, UKRAINE</i> .....	232
DASHA OLEINYK, VILKHOVA KATE .....	234
<i>ASSESSMENT OF THE DIVERSITY OF MITOCHONDRIAL DNA GENOTYPES IN UKRAINE</i> .....	234
GOWTHAM PEMULA, MAGAPU VEERA VENAKATA AKHIL, .....	236
<i>DNA METHYLATION AND GENE EXPRESSION PATTERN OF TLR-2, TLR4, IFN-<math>\gamma</math>, AND TNF-<math>\alpha</math> GENES IN CHILDREN WITH PULMONARY TUBERCULOSIS DISEASE</i> .....	236
SHULYAK KATERYNA, MATRUNICH DMYTRO, OLEINYK DASHA, GRUZKOVA MARINA .....	237
<i>INFORMATIVITY AND DIAGNOSTIC SIGNIFICANCE OF BIOMARKERS IN THE SPECIFYING DIAGNOSIS OF METABOLIC DISEASES – FROM GENERAL TO PARTICULAR</i> .....	237
HERASIMENKO SOFIIA .....	240
<i>INVESTIGATING THE FEATURES OF DIAGNOSIS OF PERMANENT TEETH ERUPTION DELAY IN CHILDREN WITH INCOMPLETE MAXILLOFACIAL DYSOSTOSIS SYNDROME</i> .....	240