SPECIAL EDITION FOR 1st BUKHARA INTERNATIONAL MEDICAL STUDENTS CONFERENCE

MESSAGE

"The only limit to our realization of tomorrow will be our doubts of today, Let us move forward with strong and active faith"

Franklin Delano Roosevelt

It is great pleasure and honour for Organizing Committee to extend you a warm invitation to attend the 1st Bukhara International Medical Students Conference, to be held in 23-25th May 2019 in Bukhara, Uzbekistan and will provide unique opportunity to students and professionals from world-wide in order to learn, share and present the latest findings and insights regarding health system readiness. 1st BIMSC will be hosted in the first time in cooperation with Phenomenon-Uzbekistan and Rector of Bukhara State Medical Institute A.Sh. Inoyatov Front Command. This year more than 300 representatives of medical and pharmaceutical educational institutions from more than 10 countries.

BIMSC will provide a platform for networking with the world's leading experts, focusing on assessing best practices and preparedness to emergencies, surgery and laboratory skills along with non-formal joint learning, founded on the experience of the participants. The main issues in the Conference will engage

future professionals to the current problems of medicine, open new perspectives and receive unique experience. The conference will feature a highly interactive, stimulating and multidisciplinary program including workshops, plenary sessions as well as oral and poster sessions, presentations, round-table discussions and hands-on experiences, based on advanced training tools.

This year, the conference hosted 14 breakout sessions, during which young scientists have the opportunity to share their achievements and plans in theoretical, experimental, clinical medicine, humanitarian and organizational aspects of the medical and pharmaceutical industries; 9 clinical workshops and trainings in Russian and English for the acquisition and improvement of professional skills by future doctors.

Dr. Bekhzod Abdullaev
Chair of the Organizing Committee

23-35 OF MAY

BUKHARA, UZBEKISTAN

Table of contents:

CONDITION OF RIGHT DISEASES OF THE HEART AND PULMONARY HYPERTENSION IN PATIENTS WITH BRONCHIAL ASTHMA, COMPLEX TREATMENT EFFECTS

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Purpose of the study. To study the state of endothelial function of peripheral vessels and central hemodynamics in patients with bronchial asthma (BA) complicated by pulmonary hypertension (PH), and to evaluate the effect on the above-mentioned indicators of complex therapy.

Materials and methods. 18 patients with bronchial asthma (group 1) and 14 patients with chronic obstructive pulmonary disease (COPD) (group 2) complicated by pulmonary hypertension were examined. All patients had pulmonary hypertension (pulmonary arterial pressure cf.> 25 mmHg). For 10 days, patients received nebivolol tablets at a dose of 2.5-5 mg per day as part of standard therapy (GOLD 2006, GINA 2011) and bischofite electrophoresis (EB). A doppler echocardiographic study of the patients' hearts was carried out according to the method of Hatle L., Angelsen B. (1985).

Results and discussion. Before treatment, a significant dysfunction of the endothelium was revealed, which is expressed in enhancing the overall synthesis of CmNO. In patients of the 2nd group compared to the 1st group, such overproduction was less by 14%. When determining indicators of central hemodynamics, signs of deterioration of the right ventricular diastolic function and a decrease in the ratio of early and late filling were recorded. Also, all patients in both groups showed an increase in the average pressure in the pulmonary artery, significantly higher in patients of group 1.

The study confirmed the vasodilating effect of bischofite and nebivalol, which was manifested by a decrease in pulmonary arterial pressure and an improvement in the diastolic function of the pancreas of the heart, in groups 1 and 2, respectively, 1.5 and 1.05 times ($p < 0.05$).

With repeated Doppler echocardiography, there is a decrease in the degree of systolic pressure in the pulmonary artery in both the 1st group by 8.3% and in the 2nd group by 7.8% and the ratio of early and late filling of the right ventricle of the heart increases by 1.09 and 1.07 times ($p<0.05$). There was also a trend towards improvement in the parameters of the systolic and diastolic functions of the right ventricle in both groups. Thus, the fraction of atrial filling and the time of isovolumic relaxation decreased, respectively, by 11.2 and 5.1% in the 1st group, by 9.3 and 4.3% in the 2nd group.

CLINICAL AND DYNAMIC FEATURES OF NEGATIVE DISORDERS IN PATIENTS WITH PARANOID SCHIZOPHRENIA

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Actuality: In recent decades, an increase in the incidence of schizophrenia among people of young working age has increased, as well as the proportion of rapidly progressive forms with the formation of profound negative changes after the first 2-3 attacks (Berman L., Veigner V., Merson A. et al., 2007; Tiganov A.S., 2009). WHO data (2006) show a high prevalence of schizophrenia in the European Region - 459.7 per 100 thousand people.

Aim: to study clinical and dynamic features of negative disorders in patients with paranoid schizophrenia.

Material and methods: Fifteen patients with paranoid schizophrenia were examined. Clinical, psychopathological, clinical, follow-up, pathopsychological methods of investigation were used (PANSS scale).

Results: In 43.4% of patients, disorders in the emotional sphere were manifested by a subjectively perceived decline in interest in different aspects of life, emotional involvement and empathy for external events. 32% of the examined patients were characterized by limiting the range of emotional contacts, signs of autism in the emotional sphere, emotional monotony, stereotype, leanness, inexpressive mimicry and gesticulation. Patients experienced intellectual difficulties, quickly exhausted when performing their usual loads, they noted a narrowing of the amount of associative activity. Emotional flatness, coldness (down to dullness) was observed in 24.6% of patients.

Conclusion: As the clinical picture of the endogenous process grows and its progression is increasing, the clinical picture of negative symptoms complicates, the depth of emotional, volitional, associative functions increases, the quality changes increase (symptoms of "distortion").

THE TREATMENT OF PURULENT-INFLAMMATORY DISEASES OF SOFT TISSUES IN OUTPATIENT PRACTICE

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Introduction. Purulent disease of crumb tissue is one of the most common diseases with a tendency to progressive growth. The incidence of purulent disease soft tissues is up to 1/3 of surgical diseases, so it is not only medical, but also socio - economic importance.

Aim. Develop a comprehensive treatment of patients with purulent soft

tissue diseases in an outpatient conditions.

Methods. Surveyed patients with purulent disease soft tissues in city center health №10 of Dushanbe in the period 2014-2018 years. The results of treatment in two comparative groups were analyzed. The main group consisted of 60 patients with purulent disease soft tissues, with a "burdened" family history of risk factors for purulent disease soft tissues (diabetes, asthma, peripheral circulation disorders, etc.). The second control group of 40 patients with purulent disease soft tissues.

Patients, along with conventional methods, were carried out special research methods, such as microbiological, immunological, cytological and the study of lipid peroxidation products.

Results and discussion. Patients of the main group, along with the operation, underwent conservative treatment aimed at reducing the purulent-inflammatory process and products of the LPO, immunity enhancement and correction of concomitant pathologies. The above-mentioned conservative therapy was combined with the local use of antibacterial ointment of a wide spectrum of 2% Bactrob. Patients from the control group were given traditional methods of treatment.

The effectiveness of the therapy was evaluated by the results of cytological, microbiological and immunological studies and dynamic study of the content of LPO products.

Conclusions. Thus, the proposed method of complex treatment of patients with purulent disease soft tissues with the inclusion in the complex therapy of antioxidants, immunomodulators, and ointment Bactroban helps to improve the results of treatment of patients on an outpatient basis and reduce the duration of disability of patients.

CLINICAL AND HEMATOLOGICAL MANIFESTATIONS IN PATIENTS WITH ACUTE LYMPHOCYTIC LEUKEMIA

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Introduction. Non-specificity of the clinical picture with the possible involvement in the pathological process of many organs and systems, severe progressive course of the disease in the absence of timely diagnosis in the early stages inevitably leading to the death of the patient, necessitates knowledge of the diagnosis of this pathology by doctors of any specialty.

Aim. To reveal the structure of clinical and hematological changes in patients with acute lymphocytic leukemia.

Methods. The analysis of the case histories of 50 patients with acute

lymphocytic leukemia (OLL) treated in the Hematology Department of the national medical center Republic of Tajikistan for the period from 2013-2015. The Age of patients ranged from 16 to 72 years, who had an episode of acute infectious complications at the time of hospitalization. The control group consisted of healthy individuals who underwent medical examination. Primary medical documentation, medical records, stationary journals of Hematology Department of NMC RT, out-patient records of patients served as a material for the study. Bone marrow, peripheral blood, blood serum, flushes from the oropharynx and nasopharynx, biological secretions were studied as biological materials.

Results and discussion. In the study of patients with acute lymphocytic leukemia in 26% of patients revealed hemorrhagic syndrome, 34.2% of patients-intoxication, 27.2%-anemic and 12.6% of patients revealed hyperplastic syndrome. Tracheitis, bronchitis, pneumonia, infections of the genitourinary system, ulcerative-necrotic colitis dominated in ALL. Among diseases of the respiratory tract in all leukemias dominated pneumonia 25 (51.0%) cases and pharyngitis – 6 (12.2%) cases, bronchitis – 6 (12.2%), urinary tract infections were 12 (24.5%) cases. The results of the studies showed that the structure of infectious complications in various forms of leukemia was dominated by infections caused by fungi of Candida genera in 16(32.0%) cases, E. Coli - 19(38.0%) cases, Streptococcus-9(18.0%), Staphylococcus-6(12%) cases.

Conclusions: 1.Among infectious complications in patients with acute lymphocytic leukemia, pneumonia (51.0%) and infections of the genitourinary system (24.5%) dominate. 2. In this nosological form, a tendency to the predominance of representatives of the genera E. Coli - 19(38.0%) and Candida 16(32.0%) in patients with acute lymphocytic leukemia was revealed.

TABLE ADVANTAGES JEI/JEI TO CHECK THE VISUAL ACUITY IN HEALTHY AND DEAF CHILDREN OF PRESCHOOL AGE

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Introduction. To date, there are various ways to check visual acuity, the most common in our country is a way to check visual acuity on the table eagle. But this method, in our opinion, has several disadvantages that adversely affect the results of the test. The study proposed by us, according to the table JEI/JEI contains a fairly simple, clear images familiar to preschool children. According to this method, you can check the visual acuity of even deaf children. During the study, it was noted a clear understanding of the instructions, speed and accuracy of implementation, the adequacy of actions.

Aim. To Develop new methods to improve the accuracy and reliability of

the results in a simple, affordable and fast way to test visual acuity in healthy and deaf preschool children.

Methods. The Proposed method was twice examined 71 children aged 3 to 11 years. For comparison, the same patients were examined according to the Orlova table according to the standard technique, also twice. The results were recorded in a summary table. Specifications of the table: height (width) of each image in the table JEI/JEI on the first line =35 mm, on the second =17.5 mm, on the tenth = 3.5 mm. the Lower edge of the table should be at a distance of 60 cm from the floor level. The table JEI/JEI is placed at the level of the child's eyes in a vertical plane. In the study, the child must sit straight, calm and without bending forward to the table JEI/JEI, at a distance of 2.5 m from the table. A healthy child calls the image aloud. Deaf and dumb children should be given cards with images from the table JEI/JEI. When showing a sign, the child raises the card of the corresponding image. The child needs to alternately show pictures, starting with the top row and gradually going down, without showing them in advance. The test is carried out with the closure of one eye, it is also important to ensure that the child does not squint and think about the answer no more than 5 seconds.

Results and discussion. The Results were recorded in the summary table, comparing the results of our studies using the table of eagles and the table of JEI/JEI: unreliable data (confused pictures or make mistakes) table of eagles number of children 11 (15%), table of JEI/JEI number of children 7 (9.8%). Repeatability of results by Orlova: number of children 6 (8.4%), by JEI/JEI: number of children 2 (2.8%).

Conclusions. The results of our studies show that the accuracy of visual acuity testing by the claimed method is 5.6% more reliable and more accurate than the Orlova table and has a number of advantages.

THE LAPARASCOPIC NEPHRECTOMY FROM A LIVING DONOR FOR A RELATED KIDNEY TRANSPLANTATION

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Introduction. Until 1995, the kidney was taken from a living donor from a wide surgical access, which caused a certain number of complications, such as pneumothorax, suppuration of a postoperative wound, postoperative hernia. The introduction of laparoscopic nephrectomy since the mid-nineties has significantly increased the number of such operations due to much greater attractiveness to donors due to a smaller cosmetic defect and a rapid almost complete recovery of physical activity.

Aim. To study the results of laparoscopic nephrectomy from a living

donor and compare them with the results obtained using standard open surgery.

Methods. Between November 2018 and January 2019 years at the «National Scientific Center Transplantation of Organs and Tissues» RT was performed 20 laparoscopic donor nephrectomies with subsequent kidney transplantation to a related recipient . All nephrectomies were performed on the left.Donors were healthy, with 7(35%) women and 13(65%) men aged 26 to 59(35.5) years. The operation was performed under general anesthesia, there were no anesthetic features. The position of the donor on the right side with a "fracture" of the operating table by 30 degrees. At the first stage of the operation, an upper-middle mini-laparotomy of 6 cm long was performed. In the resulting incision in the anterior abdominal wall, a device for manual assistance Lap Disc was installed allowing the surgeon's hand to enter the abdominal cavity without losing the pneumoperitoneum, after which it mixed medially with the help of the hand.

Results and discussion. Between November 2018 and January 2019 years, 20 laparoscopic donor nephrectomies were performed at our center with subsequent kidney transplantation to a related recipient. All nephrectomies were performed on the left. 18 donors had 1 renal artery and two had 2 arteries. In no case was it necessary to move to an open operation. The average duration of nephrectomy was 186 min (175-195min), thermal ischemia was 3.9 min. Donors did not have intra- or postoperative complications. In these cases, where there were 2 renal arteries, the latter were anastomosed with each other ex vivo. There was never a need for renal vein reconstruction. All recipients had excellent graft function and no surgical complications were observed. Plasma creatinine at discharge was 145±39 μmol/l.

Accordingly, the surgical technique used should be aimed at reducing the risk of complications for the donor without compromising on the function of the transplant. Since the first laparoscopic nephrectomy was performed in 1995, the critical attitude to the method has been associated mainly with a longer thermal ischemia compared to traditional open interventions, which could have a negative impact on the results of transplantation. In this case, laparoscopic donor nephrectomy is accompanied by much less pain after surgery and significantly shorter duration of hospitalization.

Conclusions. Laparoscopic donor nephrectomy is a safe and effective intervention that has a number of advantages over the open method of performing this operation.

RISK FACTORS FOR THE DEVELOPMENT OF THE PATHOLOGICAL COURSE OF MENOPAUSE

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Actuality: The increase in the average life expectancy of the population as

a whole contributes to an increase in the proportion of the female population aged 45 years and older. This period of a woman's life is characterized as a period of the menopausal transition to a subsequent postmenopausal period.

Aim: A comparative assessment of the health status of women in the late reproductive, peri- and postmenopausal periods, as well as the identification of factors contributing to the pathological course of menopause has appeared.

Material and methods:1484 women (mainly Asian nationality 1381 - 93.1%) aged 35-70 years were examined. Depending on the age, women were divided into 3 groups: 1 group - 35-44 years old, (n=618) conditionally located in the late reproductive period; Group 2, 45-54 years old, (n=627) - in perimenopause, and group 3.55-70 years old (n=239) - in postmenopause. All women underwent general clinical examination (general examination, anthropometry, measurement of causal blood pressure) and a special gynecological examination. In order to identify signs of CS and determine the degree of its severity, the scale of Kupperman Modified Menopausal Index (KMMI) was used

Results: The somatic status of women was most severely affected by goiter - in 588 (39.6%), gastritis - in 334 (22.5%), pyelonephritis - 313 (21.1%), anemia - 246 (16.6%), and significantly more often this pathology was noted in women in the late reproductive period ($P \leq 0.05$). While hypertension (HD) 272 (18.3%), depression 238 (16.0%), diseases of the respiratory system 220 (14.8%) and colitis 217 (14.6%) were more common in peri- and especially in postmenopause ($P \leq 0,05$). The overwhelming majority of women had pregnancy and childbirth in history - 96.5%, 70.5% had artifactual abortions and 22% had miscarriages. The average number of pregnancies was 5.1±0.06, childbirth - 3.0±0.03, abortions - 2.6±0.05, miscarriages - 1.4±0.05. The ratio of birth: abortion: miscarriage averaged 2.5: 2: 1. Every tenth (10.8%) woman with a history of chronic adnexitis suffered, uterine fibroids were diagnosed in 175 (11.8%) (Significantly more often in perimenopause - 105 (16.7%)), abnormal uterine bleeding was observed in 97 (6.5%), in perimenopause - in 54 (8.6%). The average age of menopause was 46.7±0.2 years; the duration of postmenopause was 6.8 ± 0.3 years (1-38 years). Surgical menopause was in 92 (6.2%) women, premature - in 49 (3.3%), early - in 150 (10.1%).

The clinic of the CS was observed in almost all women - 1369 (93.3%), while the 1st grade CS was more common: in women of the 1st age group - in 426 (68.9%). The average severity of CS in peri-and postmenopausal women was observed 1.5 times more often - in 212 (33.8%) and 83 (34.7%), respectively, compared with women aged 35-44. Severe CS was noted much less frequently in all studied groups and amounted to 1.2% - in just 18 patients. The KMMI score showed predominance of the clinic of neurovegetative (18.9±0.3 points) and psycho-emotional (8.2±0.2 points) disorders in perimenopausal women, while metabolic and endocrine disorders were most pronounced in postmenopausal (5.3±0.2 points). The total KMMI score was most pronounced in women in the

peri-(31.6±0.5) and postmenopausal (31.7±0.79), compared with women of the late reproductive period (P≤0.05). The analysis of the course of pre-, peri-and postmenopausal showed a significant influence of social factors on the development of pathological menopause. So, CS was observed significantly more often among the residents of the city - 72.0 against 54.8% who do not have a CS clinic (OR=2,1) women with higher education - 48.4 versus 33% (OR=1.9).

Conclusion: The most significant predictors of CS are overweight and obesity (BMI≥25). The protective factors behind the development of a clinic at the Constitutional Court are the absence of the fact of marriage - 1.5 versus 5.2% (OR=0.3) and medical education - 69.6 versus 79.1% (OR=0.6), which is most likely associated with access to health care and awareness.

TREATMENT OF THE KNEE JOINT OSTEOARTHRITIS WITH AUTOLOGOUS MESENCHYMAL STEM CELLS

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Purpose of research. To study the efficiency and safety of the use of autologous mesenchymal stem cells in the complex therapy of the knee joint osteoarthritis.

Materials and methods of research. The present work is based on the analysis of complex treatment of 26 patients with osteoarthritis of the knee joint. All patients were treated at the basis of clinic of TSMU from May 2016 till August 2017. The age of patients ranged from 20 to 77 years, the average age was 46.5 ± 0.6 years. By sex, patients were distributed as follows: men – 10 (39%), women – 16 (61%). According to clinical signs and radiography data, 18 (69%) patients had the 2nd stage of the knee joint osteoarthritis, 8 (31%) had the 3rd stage of the disease. The functional condition of the joint was determined by Leken algofunctional index. According to it, patients were divided into 3 groups: in the 1st group of 7 patients, the index ranged from 8 to 12 points; in the 2nd group of 8 patients, the index ranged from 12 to 16 points; the 3rd group consisted of 11 patients, the index was from 16 and higher.

Results of research. The results were evaluated by changes of the value of Leken algofunctional index and x-ray changes in the joint after 3, 6 and 12 months after the procedure. Thus, in the first group consisting of 7 patients, the Leken index decreased by 4±0.8 points at 5 patients, in the second group of 8 patients, the index decreased by 4.5±0.6 points at 5 patients. In the third group, 11 patients had no positive dynamics on clinical and radiological signs.

Conclusion. Thus, the positive dynamics was observed at 12 (46%) patients. In our opinion, the multiplicity of entering the mesenchymal stem cells into the cavity of the affected joint plays an important role in the results of treatment, i.e. the best results were obtained at those patients who were injected with cells two or more times during 6 months at the early stage of disease.

STUDY OF ENDOTHELIAL FUNCTION IN PATIENTS PRESENTING WITH ANGINA AND HAVING A NORMAL CORONARY ANGIOGRAM

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Introduction: Endothelial dysfunction is an early event in atherogenesis preceding plaque formation and hence is an early marker of atherosclerosis before angiographically demonstrable changes occur in the epicardial coronary arteries. It is the earliest measurable functional abnormality of the vessel wall and is closely related to risk factors of atherosclerosis. There is a close relation between coronary artery endothelium-dependent vasomotor responses to acetylcholine and brachial artery flow-mediated vasodilatation. Endothelial dysfunction is associated with impaired flow mediated dilatation, which is a clinically useful, non-invasive, simple, cheap and easily available surrogate index for evaluation of endothelial dysfunction.

10-30% patients undergoing coronary angiography for chest pain evaluation have normal coronary angiograms. How aggressively should the 'angina' be chased in such situation, whether preventive measures would benefit, need to be addressed apart from the cause of such an 'anginal pain'.

The present study aims at the study of brachial artery flow mediated dilatation in 100 patients presenting with chest-pain and having normal coronary angiograms. Brachial artery flow mediated dilatation parallels endothelial dysfunction and is a sign of future development of atherosclerosis. Endothelial dysfunction predicts cardio-vascular events in patients with angiographically normal coronary arteries. And hence aggressively treating such patients with risk factor modification will go a long way in primary prevention for reduction in major adverse cardio-vascular events.

Observations: 55% patients in the study population had evidence of endothelial dysfunction as evidenced by abnormal brachial artery flow mediated dilatation. There was no correlation with age or gender. There was no difference with respect to the type of angina, whether stable or unstable; however, it did correlate with the NYHA class of angina. Almost two thirds of the study population were non-smokers. Endothelial dysfunction was significantly higher

among smokers than non-smokers, hypertensives than normotensives, diabetics than non-diabetics, obese than non-obese, high carotid intima media thickness than normal. However, no such increase in endothelial dysfunction was found in patients with dyslipidemia, those with a family history of premature cardio-vascular disease, post-menopausal women, those with abnormal ankle brachial index.

EFFECT OF BIORHYTHMS ON RENAL FUNCTION IN PATIENTS WITH UROLITHIASIS

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Introduction: Urolithiasis among urological diseases is 30–45% and is found in any age groups, stones can be localized both in the kidneys and in other parts of the urinary tract is an actual problem for the Republic of Tajikistan.

The purpose and objectives of the study: Improving the purification of the kidneys and urinary tract from urolithiasis, depending on the biorhythm.

To study the state of the biorhythms of the body in patients with urolithiasis, depending on the influence of external and internal factors. To study the water-electrolyte balance in blood plasma and urine in patients with urolithiasis. Develop a set of therapeutic and prophylactic methods for urolithiasis.

Material and methods: In Tajikistan, for the first time biorhythms will be used in the treatment and prevention of urolithiasis of the body, depending on the time of day, month and year. Comprehensive examination of 82 patients with urolithiasis, 2010, of which the majority is represented by males 48 (58.5%) and female 34 (41.5%). 52 of these patients were admitted during the II-IV lunar quarter.

Practical relevance: An algorithm for the prevention and treatment of urolithiasis depending on the biorhythm of the body will be developed and therapeutic diet therapy and phyto-lithokinetic therapy will be introduced to cleanse the kidneys and urinary tract from calculus depending on the pH-urine and water-electrolyte balance.

Conclusions: In order to remove small stones and cleanse the urinary tract, it is necessary to use the most active periods of the kidneys in the II-IV phases of the lunar cycle. Exit from the body of water, electrolytes, urea and creatinine (nitrogenous slags) is observed in the period II-IV phase of the lunar cycle. Mass intake of patients with urolithiasis is observed on certain days, weeks, months, namely in phase II-IV of the lunar cycle. On the basis of the data obtained, we

have developed a set of therapeutic and preventive measures for urolithiasis.

CHARACTERISTICS OF CLINICO-ECHOGRAPHIC MANIFESTATIONS OF BILIARY SLUDGE IN WOMEN WITH ACCEPTANCE OF ORAL CONTRACEPTIVES

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Introduction. Long-term use of hormonal drugs may be accompanied by a violation of cholesterol homeostasis with the subsequent development of hyper saturation of bile. Following this, an imbalance occurs in the dynamic equilibrium of indicators of solubilants (cholesterol) and solubilizes (bile acids, phospholipids), which is the starting point in the processes of nucleation and precipitation of cholesterol monohydrate crystals. Thus, the complex process of formation of various pathological formations in the bile, which is biliary sludge (BS), is launched. With the formation of the micellar theory of cholesterol lithogenesis and the introduction of modern ultrasound equipment into clinical practice, there appeared a real possibility of identifying the products of the early stage of stone formation in the form of BS.

Purpose. To establish the features of manifestations of clinical and echographic signs of BS in individuals taking oral contraceptives.

Materials and methods. For the implementation of the tasks, the results of clinical and echographic studies of 48 women, aged 18 to 50 years, were analyzed, which were divided into 2 groups, representative of the average age, BMI (Quetelet index), the number of births and the duration of intervals between them and so on The first group included data from a clinical and echographic study of 25 women taking microlut (levonorgestral) tablets in tablets with a daily dose of 0.03 mg. Representatives of this observation group took the microlute once a day at bedtime, at the same time, according to the regulations, for 35 days without a break. The duration of treatment was from 3 to 6 months. The second control group consisted of the results of clinical and ultrasonographic studies of 23 women who in the past had no episodes of taking any type of contraceptives. The diagnosis of BS was verified using transabdominal ultrasonography on a WED - 9618C (PRC) apparatus.

Results. According to the obtained results, which are of a certain scientific interest, 18 of the total number of 25 women who took oral contraceptives showed clinical and echographic signs of BS, which accounted for more than 70% of the individuals in this group of observation. The clinical signs of BS manifested in them in the form of “right hypochondrium” syndrome, in the form of moderate periodic pain of dull nature in the right hypochondrium and abdominal distention. Both signs most often made themselves felt after taking high-calorie foods.

Ultrasonographic symptoms included echo-positive inclusions in the form of hyperechoic suspensions of round, oval or longitudinal shape without acoustic shadow.

At the same time, out of the total number of 23 women in the control group, only 5 (21%) showed clinical and echographic signs of BS without any typical complaints for the pathology of the biliary tract.

Conclusion. The results obtained suggest the existence of an obvious link between taking oral contraceptives and the process of violation of the chemistry of bile with the subsequent formation of early substrates of cholesterol lithogenesis in the form of BS.

THE EVALUATION OF THE EFFECT OF HUMAN REACTION TIME ON RESULTS OF VISCOSITY DETERMINATION USING STOKES' METHOD

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Introduction. In determining the viscosity of the liquid using Stokes' method the measurement of time of the glass ball uniform motion in the investigated solution is carried out. At the same time, we noticed that different students get different results of viscosity of the same liquid, in addition, each student also does not recur the results. That is apparently we deal with a random distribution of the measured value. In this regard, we are interested in the question of finding a factor that affects the results of measurements. Since by all accounts the value of time of a glass ball uniform motion is the only quantity which is measured with not certain error in such experiment, we investigated a question of possible interconnection of human reaction time and the result of the determination of the physical quantity.

Purpose and objectives. The aim of this work is to study the effect of human reaction time on the accuracy of measurements of physical quantities indirectly related to the measurement of time on the example of the viscosity of glycerin solution. To achieve this goal, we have identified the following tasks: 1) measurement of the reaction time of researchers; 2) measurement of the viscosity of the test liquid; 3) the analysis of the received data.

Materials and methods. Six foreign students of the Volgograd State Medical University took part in our experiment. We used previously measured values of students' reaction time in the group of researchers (Rawat Arushi, Subhash Laxmappa and Sinam Miranda, 2019), then we conducted the exploration of the influence of human reaction time on the results of viscosity measurement of a liquid by Stokes' method. All measurements were carried out

with one glycerin solution at a constant temperature and pressure. The diameters of the glass balls were measured using a micrometer with an accuracy of ±0.01 mm, the time of movement of the ball in the glycerin solution was measured using an electronic stopwatch (hereinafter these values of time we will call "experimental"), and a video recordings were made, using which we determined the exact values of time of glass balls movement (hereinafter these values of time we will call "true"). Then calculations of the "experimental" values of the viscosity of the glycerin solution were made, as well as the viscosity coefficients obtained from the time values from the videos, which we will call "true".

Results and discussion. To determine the reaction time of a person, each student carried out 20-25 measurements, that is, a total of 140 reaction time measurements were carried out in this research group. The method of measuring reaction time is described in the report "The measurement of reaction time of first-year VolgSMU students" (Rawat Arushi, Subhash Laxmappa and Sinam Miranda, 2019). Measurement of the viscosity of the glycerin solution was carried out by each student five times, that is, a total of 30 measurements of the viscosity of one glycerin solution were carried out in the group that took part in the experiment by measuring the time of movement of the glass ball manually and at the same time by video recording. As a result, it was found that in the group of experimental students the measured reaction time varies from 0.11 s to 0.24 s, which on average for students ranged from 0.161 s to 0.178 s with an sampling average equal to 0.169 s. The difference between the "experimental" and "true" values of the measured time ranges from 0.1 s to 1.9 s (an average of 0.7 s), which is a percentage of the value of the measured time from 0.4% to 26% (an average of 10.8%). The data obtained indicate the importance of the problem we study.

Since it may be interesting how much reaction time influences on the error of measurement of time, we calculated the ratio of absolute error of time measurement to the average reaction time of the researcher as a percentage, which varies from 19% to 1069% (the average ratio of the absolute error to the average reaction of students varies from 151% to 788%, the sampling average is 412%). These figures can be partially explained by the fact that the reaction time affects the measurement result twice – the first time when the researcher turns the stopwatch on and the second time when he turns it off. Nevertheless, these results are not obvious and thus unfairly deprived of attention at the organization and processing of results of physical experiment by medical students.

Next, we assessed the presence of relationships between the various characteristics of the carried out experiment and found that the correlation coefficient of the mean reaction time of the student and the absolute error of the coefficient of dynamic viscosity amounted to 0.73, which indicates that there was a significant effect of student reaction time on the result of the indirect measurement of a physical quantity. In addition, the correlation coefficient of the experimental viscosity and the absolute time measurement error is 0.64 (for a

relative error it is 0.63), which also confirms the influence of the researcher reaction time on the measurement result.

In this case, we have obtained results that cause some interest, but can not yet get a clear explanation – for example, the correlation coefficient of the average reaction time of the student and the experimental value of the viscosity of the glycerol solution is 0.78, which may be explained by the fact that a greater value of the reaction time of the researcher can lead to a greater measurement error and ultimately to a greater value of the physical quantity. It is also established that the correlation coefficient of the average and minimum values of the reaction time of the student is 0.93, and the average and maximum reaction time is -0.02. In other words, it follows from the data obtained that the smallest value of the reaction time of the researcher is in a noticeable relationship with the average value of the reaction time of the student, while the maximum reaction time has virtually no effect on the average reaction rate.

Summary. Our study of the effect of the researcher reaction time on the result of indirect measurement of the physical quantity confirmed the existence of the relationship between them on the example of measuring the viscosity of the glycerin solution by Stokes method. Nevertheless, although there is a significant relationship between the reaction time and the result, there are many reasons to suppose that the relationship is quite complicated, because the researcher reaction time is a somehow distributed value.

PREVENTING GLUCOCORTICOID-INDUCED OSTEOPOROSIS BY FISH OIL SUPPLEMENTATION

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Osteoporosis is recognized by decreased bone density and deterioration in bone structure, causing a decrease in bone strength and an increase in bone fragility and fracture problems [1]. Glucocorticoids are used in the treatment of many diseases for decades, to suppress tissue inflammation and immunological reactions. Glucocorticoids suppress bone formation, increase bone resorption and cause negative calcium balance and high risk of fractures and leads to glucocorticoid-induced osteoporosis [2]. Following initiation of oral glucocorticoids, rapid bone loss occurs, and fracture risk increases [3]. Therefore, nutritional strategies that prevent glucocorticoid-Induced osteoporosis and improve the quality of life for the glucocorticoid-treated individuals are urgently needed and should be considered as an alternative first-line option for high-risk patients. Polyunsaturated fatty acids (PUFAs) has been reported to have a vital

role in bone metabolism. Therefore, the main purpose of the present study was to evaluate the role of fish oil in preventing bone loss and osteoporosis in glucocorticoid-treated rats.

Methods. The fatty acids profile of fish oil was analyzed, male rats were fed balanced diet and subdivided into 3 groups, I – normal control, was fed only balanced diet; II – prednisolone control, administrated prednisolone (10 mg/kg po daily); III – fish oil (F), administrated prednisolone (10 mg/kg po daily) + fish oil (7% w/w). Some biochemical markers of bone metabolism, oxidative stress, inflammation status were determined in blood along with plasma calcium (Ca), phosphorus (P) and magnesium (Mg). Bone mineral density (BMD), mass, length as well as histopathological examination of femurs were evaluated.

Results: Fatty Acid analyses showed that fish oil contained high levels of long chain ω-3 PUFAs, eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). The current data exhibited significant depletion in BMD and mass of femur in prednisolone control compared to normal control, accompanied with marked decrease in levels of plasma Ca, P and and 1,25-(OH)2-vitamin D3. Furthermore, elevated levels of parathyroid hormone (PTH), C-terminal telopeptide (CTX), tumor necrosis factor-alpha (TNF-α) and malondialdehyde (MDA) were seen. Supplementation with fish oil helped to improve calcium levels in plasma, and suppress oxidative stress and of inflammatory markers. Additionally, reduced bone resorption as reflected from the decreased levels of CTX, and showed significant improvement in bone mineral density and normal histological results of bone cells compared to normal control.

Conclusion. The management of osteoporosis remains a considerable problem. Therefore, preventing bone loss is an important demand nowadays. The present data indicated that feeding oil rich in PUFA such as Fish oil was able to modulate the potential effect of prednisolone in bon loss in rats. This may occur through some intracellular pathways, involving the improvement of calcium absorption, regulation of bone metabolism and the differentiation of the osteoblast and osteoclast, suppression of oxidative stress and modulation of inflammatory response. Thus, fish oil could be used as a natural approach to help in preventing bone loss associated with glucocorticoid therapy, and this provides an interesting prospect for future research.

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EFFECTS OF THE CYTOKINES IN THE DEVELOPMENT OF MYOMA OF THE UTERUS IN REPRODUCTIVE AGE OF FEMALES

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Myoma of the uterus encounters between 25 and 30% of women over 35 years of age, but in recent years, the illness also meets in youth. The study of a new substance of the pathogenesis of myoma of the uterus helps predict the disease. It provides a comprehensive assessment of the risk factors leading to the development of symptoms and improves the pathogenic treatment. It reduces the frequency of clinical manifestations of myoma. This group will later help reduce the need for surgical treatment of patients gives.

Purpose. Examine the level before plasma inflammatory cytokines depending on the size of the tumor in women with myoma of the uterus.

Investigative material. We took 77 women which is living in Bukhara region, of which 50 were women of reproductive age with myoma of the uterus and 20 healthy fertile age women in the control group.

Examination methods. Clinical: Complex examination of patients with myoma of the uterus at the reproductive age. Laboratory analysis: general blood test, hormone detection in blood plasma. Clinical - functional: USB pelvic organs. Immunological:status of cytokines methods of IFA, anamnesis of statistical age.

The results of the investigation. According to the analysis, a significant increase in the levels of IL-6, IL-8, IL-10, IL-18, IFNg and TNFa, which belong to the patients with uterine fibroids was detected. The proportion of patients with serum TNF a[alpha] is proportional to the size of the uterus .Besides , in patients under 8 weeks of uterine fibers IFNg levels were significantly higher in patients with uterine size above 8 weeks. The IL-10 content was significantly higher in patients with adenomyosis, rapid and slow growth of uterine fibroids, as well as in normal and reproductive cancer. Compared to multicellular and control groups, IL-6 levels increased in blood and serum levels in patients with miomatous nodules. In addition, The intramural and low level localization of the nodes was characterized by high levels of IL-6 serum .In patients without adenomyosis, IL-6 levels were significantly higher than in the comparative group, in that, constant size of a small amount of IFN-y in patients with uterine fibroids associated with the reverse connection which is the size of the tumor.

Conclusion. Consequently as far as is known, an increase in the size of mioma nodes is associated with an increase in immune disbalance (IL-6, IL-8, IL-18, TNFa), an increase in inflammatory cytokines, resulting in changes in IL-4 levels, which can be evaluated in the step of uterine myoma pathogenesis. Deficiency IL - 4 IL - 8 and IL – 18 of women`s blood plasma can predict disease progression and can be used as markers in tumor growth

STAPHYLOCOCCUS AUREUS NASAL CARRIAGE OF THE STUDENTS KARAGANDA MEDICAL UNIVERSITY (KMU) AND TEENAGERS OF SECONDARY SCHOOL

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Studies show that in developed countries, among all known infections, one of the most famous and "common" bacteria. Many S. aureus toxins damage biological membranes, leading to cell death [1]. It is difficult to indicate the organ or tissue that this microbe did not damage. Due to patient-and procedure-related changes, Coagulase-negative staphylococci (CoNS) now represent one of the major nosocomial pathogens, with S. epidermidis and S. haemolyticus being the most significant species [2]. Nasal Staphylococcus aureus carriage, affecting about 20% of the population (Sivaraman K at all, 2011) has been identified as a risk factor for the community-acquired and nosocomial infections [3]. The factors that determine carrier or non-carrier status are largely unknown. Various epithelial and mucous host factors, like biofilm formation properties, have been shown to mediate the binding of S. aureus. Various bacteria, including Staphylococcus epidermidis, are capable of reducing nasal ciliary activity in vitro. Improved adhesion and diminished mucociliary clearance could explain the retention of S. aureus within the nasal passageways but not its ability to grow to a high density in this normally non permissive environment [4].

This thesis aim to give an overview of the prevalence of nasal carriage of S. aureus and their biological properties isolated from the students KMU and teenagers of the secondary school.

Materials and methods. 20 students of the 2-nd years of studying of KMU and 20 teenagers of secondary school were investigated. Samples of nasal flora were cultured on blood and mannitol salt agar. Coagulase and protein A testing allowed us to differentiate S. aureus from other species. S. aureus was also confirmed by MALDI-TOF mass spectrometry. Staphy-test used to identify of the coagulase-negative staphylococci (CoNS). Antibiotic sensitivity was determined by Kirby-Bauer test to the following antibiotics: penicillin G, azithromycin, clindamycin, fusidic acid, gentamycin, tetracycline, ciprofloxacin and cefoxitin. The cefoxitin disc was used to detect methicillin-resistant staphylococci

Results and discussion. In general, out of 20 students, 5 (25%) S. aureus nasal carriage. The carriage state of S. aureus in teenagers of secondary school 8 (38,1%). Among coagulase-negative staphylococci (CoNS) prevalence of S.epidermidis was noticed in teenagers of secondary school 8 (38,1%) equal to S. aureus. S.epidermidis was isolated only from 2 (10%) students of the KMU.

S. haemolyticus prevailed among students of KMU -10 (50%) in comparison with students of secondary school – 3(14,28%). S. saprophythicus in both groups was approximately equal to 2(9,5%) for teenagers of secondary school and 3 (15%) for students KMU.

Antibiotic sensitivity was determined in 13 strains of S. aureus. Methicillin-resistant S. aureus were not determined. 10 (76,92%) strains of S. aureus resistant to penicillin, 3 (23,08%) strains to gentamycin, 2 (15,38%) strains to tetracycline. Resistance of the S. aureus to azithromycin, clindamycin, fusidic acid, ciprofloxacin was not documented. S. aureus with multiple antibiotic resistance were not isolated in both groups.

Medical personnel and students are examined for the carriage of Staphylococcus aureus. However, no one pays attention to coagulase-negative staphylococci. Despite the fact that they are the causative agents of nosocomial infections and are listed as pathogens of medical equipment. It should be noted that coagulase-negative staphylococci can also play a key role in the spread and formation of antibiotic-resistant strains.

Conclusion. Carrier of S. aureus varied between 25% in students KMU and 38,1% in teenagers of secondary school The proportion of coagulase-negative staphylococci was 75% and 61,9%, respectively.

Among the coagulase-negative staphylococci, S. heamolyticus was predominant in students KMU. S.epidermidis prevailed in teenagers of secondary school. Resistance S. aureus to antibiotics varied within 0-76, 92%. Methicillin-resistant S. aureus were not isolated in both groups of students.

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AUSCULTATED HEART RATE ACCELERATIONS

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Purpose of the study. Evaluation of auscultated fetal heart rate accretions.

Methods of examination. 100 women were examined at a gestational age of 28-43 weeks. After conducting a non-stress test for 6 minutes, the heartbeat of the fetus was listened. In the absence of spontaneous accelerations, vibroacoustic stimulation was performed.

Results of the survey. The auscultation data was monitored by electronic monitoring. Coincidence of the results was 89.3%. The ability of auscultation to predict the results of a non-stress test is determined by the following indicators: sensitivity - 75%, specificity - 97.6%.

Conclusion. Thus, our studies prove that the auscultation of the accelerations can serve as the initial screening test for determining the fetal status and be used as an alternative method in relation to electronic monitoring. The method is simple, cost-effective and should be developed in further studies.

CORRELATION BETWEEN BIOCHEMICAL MONITORING AND MEASUREMENT OF THE WAVE VELOCITY OF BLOOD FLOW IN THE UMBILICAL CORD OF A HUMAN FETUS

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The aim of the study was to establish a correlation between fetal oxygenation and CBS, determined by transabdominal blood sampling from the umbilical cord, and pulsation index (PI) in high-risk pregnancies.

Materials and methods of examination. In 14 women of high risk group who were delivered by cesarean section between the 30th and 35th week of pregnancy, the PI (pulsation index) in the artery of the umbilical cord was determined. In 10 of them, blood was taken from the umbilical cord transabdominal by ultrasound. In addition, all patients during the operation took arterial and venous blood from the umbilical cord. Gases of blood, CBS and lactate were determined.

Results of the survey. A close connection was found between the PI (index of pulsation) and pH, Pco2 and the lactate cation in the venous blood of the umbilical cord taken in utero. IP (index pulsation) was well correlated with the same indices of venous and arterial blood of the umbilical cord taken at caesarean

section. Venous blood of the umbilical cord, obtained transabdominally, has a higher O2 content than blood taken at a caesarean section. There was no significant correlation between the content of O2 in the venous blood of the umbilical cord with transabdominal take and PI (pulsation index). With PI (index of pulsation)> 1.5, the ratio of lactate in the venous blood of the umbilical cord sharply increases.

Conclusion. This way, a combination of biochem. fetal blood tests in a transabdominal fence under ultrasound control using the Doppler method allows among pregnant women high risk groups to isolate those who have a higher risk of impairment of the fetus.

INFLUENCE OF THE NUMBER OF BIRTHS ON THE STATE OF THE VENOUS SYSTEM OF THE LOWER EXTREMITIES

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The aim of the study was to determine the state of the venous system of the lower limbs from the number of newborns.

Materials and methods of examination. The condition of valve function and the morphology of the veins of the lower extremities were studied in 19 patients (1st group) and in 21 reproductive women (group 2). Ultrasonic-biometrics of the lumen of the veins, plethysmography and light-flexography (SRG) were used. The study was performed in the supine position and standing at the gestation period of 36-40 weeks (1st definition) and on the 6th day after birth (2nd definition). The control group consisted of 39 non-pregnant women (group 3), 27 of them had in the past one (3A group) and 12 - two births (group 3B).

Results of the survey. According to all 3 non-invasive methods, it was not possible to detect a significant difference in the morphology and function of the veins in all groups. Only the tendency to increase the diameter of the lumen of V. iliaca by 5-6%, V. femoralis by 6-7%, V. poplitea by 2-7% is noted. In women of the 2nd group in the position of les. According to the AHWG, blood filling and venous drainage of blood from the left lower limb in women of the 2nd and right lower extremity in women of the 3B group also tended to increase in comparison with the values of these parameters in the women of the 1 st and 3 A groups.

Conclusion. Thus, the development of varicose veins depends not so much on the number of deliveries in the past as on the initial state of the function of venous occlusive valves and the morphology of the vein wall. In this regard, the use of a screening survey of pregnant women is recommended in order to identify

the functional and morphological inconsistency of the venous system of the lower extremities and the preventive use of first-class compression therapy.

RELIABILITY OF SCREENING OF SMALL CHILDREN FOR GESTATIONAL AGE USING THE DOPPLER METHOD

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The aim of the study was to determine the reliability of screening of small children for the gestational period using the Doppler method.

Materials and methods. One of the main causes of perinatal complications, mortality and subsequent neurological diseases is a violation of fetal growth. Since small children can also be genetically small, it is very important to have accurate diagnostic methods.

Results. The reliability of Doppler measurement of blood flow in the umbilical artery was determined at 28 and 34 weeks' gestation. 400 women were examined for the purpose of predicting the birth of small children and newborns with a violation of the mass index. The sensitivity of the method was low (from 16.9 to 41.7%). The prognostic value of the negative screening test was not satisfactory.

Conclusion. Thus, the study of blood flow in the umbilical artery by the Doppler method at the gestational age of 28 and 34 weeks is not informative for diagnosing and predicting fetal development disorders. However, negative results should not depreciate this method as a means of diagnosing and predicting fetal distress in high-risk pregnancies.

CAUSES OF FATAL OUTCOME IN CHILDREN WITH INFECTIOUS DISEASES

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Introduction: At present, infectious diseases at the children are the leading cause of urgent conditions that can lead to mortality [1, 3, 4].

In the aetiological structure of diseases with urgent conditions dominated as viruses, so bacteria, affecting the respiratory system (69,4%), which determine the virulence of the development of severe disease and urgent conditions. [2]

One of the most dangerous complications that lead to fatal disorders of body functions and his death is cerebral edema (CE) that develops in many

infectious diseases in children [5]. The basic universal pathophysiological components of CE are disorders of auto regulation of cerebral blood flow, hypoxia and ischemia of brain cells with metabolic disorders and increased permeability of blood-brain barrier [1].

Purpose of this study was to evaluate the clinical and pathophysiological features of fatal outcome at children with infectious diseases.

Materials and study. We analyzed the 234 medical records of children, which were died in the intensive care unit of the Republic clinical hospital for infectious diseases (RHID). The morphological changes of central nerve system (CNS) of all children were confirmed by postmortem examination.

We used clinical, biochemical, bacteriological, function (x-ray of lungs, brain ultrasound) methods. Statistical analysis was performed using SPSS.

Results and discussion. The proportion of common infectious diseases in children who died amounted to acute respiratory infection – 44,7%, acute intestinal infection – 27,3%, viral hepatitis – 11,9%, acute bacterial meningitis – 8,2%, whooping cough – 5,5% and enteroviral infection – 2,4% (Figure 1).

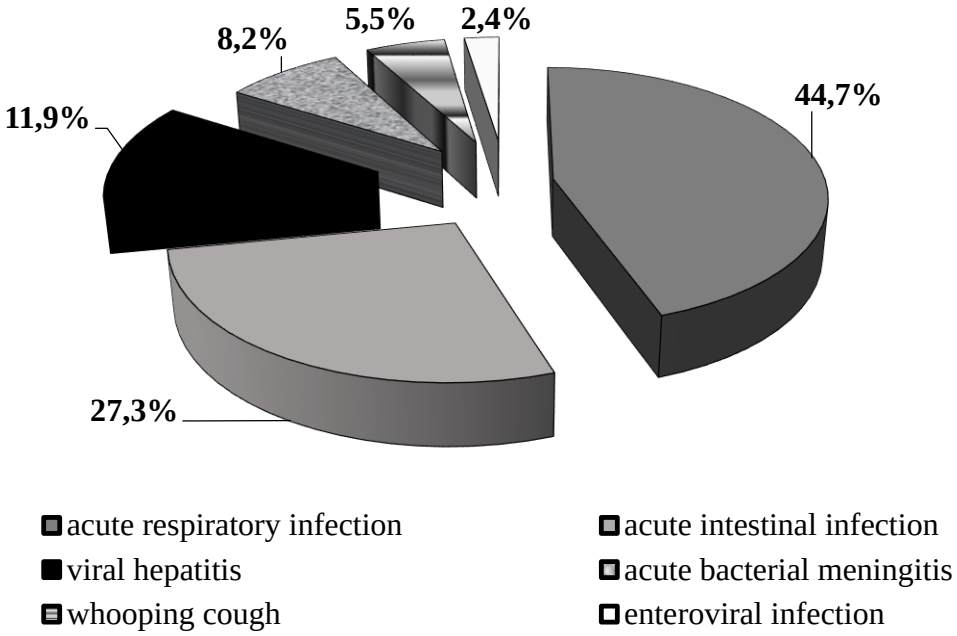

Fig.1. The proportion of frequent infection diseases with symptoms of disorders of CNS at deaths of children (%).

The analysis of the spectrum of clinical diagnosis in patients who were on treatment in the intensive care unit of infectious diseases involving the CNS shown (Fig. 2), which accounted for the majority children with acute respiratory viral infections (44,9%) and acute intestinal infection (29,9%).

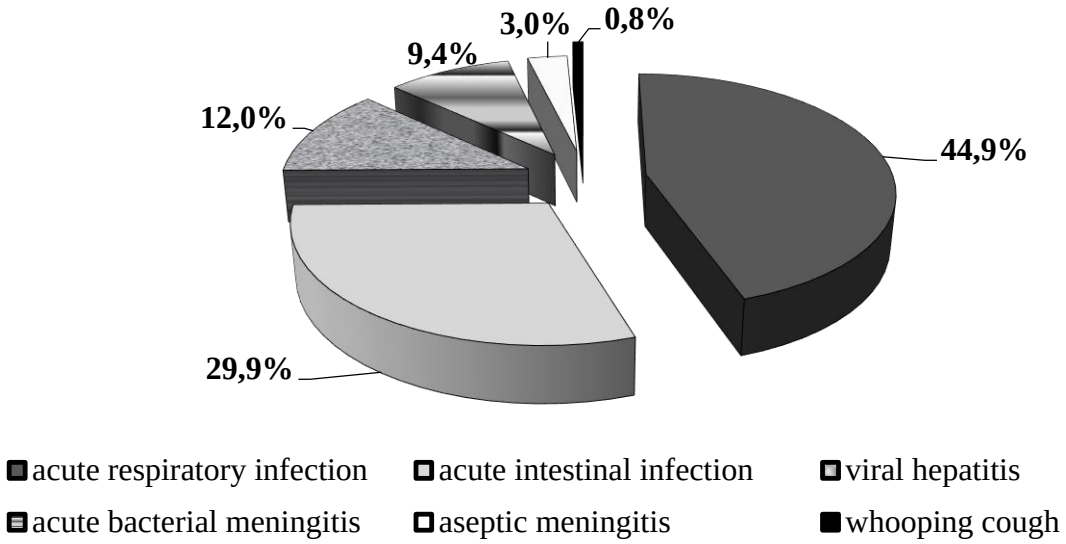

Fig. 2. The structure of the clinical diagnoses of pediatric patients who died from infectious diseases with disorders of CNS.

Age composition of patients who died was represented mainly by children of the first year of life - 192 (82.0%) patients, 1 to 3 years - 17 (7.3%) and older than 3 years - 25 (10.7%) children.

Children (90.2%) already admissions to hospital with severe complications: cerebral edema – 70,6%, respiratory failure – 64,0%, DIC syndrome – 28,4%, severe dehydration – 19,9% and 6,16% of child had symptoms of an infectious-toxic shock. Therefore, these children (81,6%) have been reported immediately to intensive care unit, bypassing the emergency department, and only 18,4% of children are enrolled in intensive care by other departments RHID, indicating the severity of the condition of children to the hospital admission.

It should be noted that all the underlying condition of the dead children be severe. At the examination of children at the intensive care unit department was identified cerebral edema symptoms: psychomotor irritation (24,6%) within 2,7±0,6 days, cognitive challenges, from sopor (61,1%) to coma (38,9%) – 4,9±1,5 days, convulsions (57,1%) - 2,6±0,8 days, pathological photoreaction pupils (53,0%) - 3,5±1,1 days, positive meningeal signs (13,3%) - 1,8±0,3 days and focal symptoms (8,4%), which was maintained for 3,0±0,8 days.

According to conclusion of pathologist the respiratory failure was decreased (80,0%) and there were such diagnoses as Reye's syndrome (21,8%), acute liver failure (11,9%), infectious-toxic shock (1,3%) and renal failure in 1,3% of patients who died (Fig. 3).

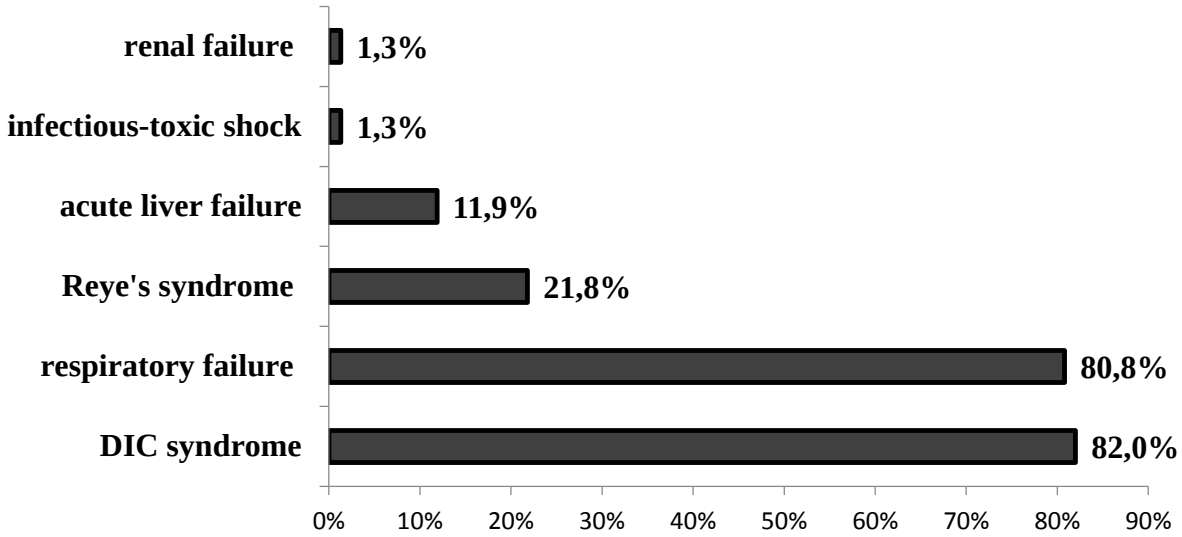

Fig. 3. Structure of the emergency conditions of dead children (results of autopsy).

The clinical and morphological data have clarified the structure of the postmortem diagnosis of the dead children. The most frequent diagnoses were viral and bacterial pneumonia (47.4%), mixed infection acute enterocolitis + pneumonia (14.8%), acute bacterial meningitis (12.4%), acute intestinal infection (dysentery, salmonellosis, enterocolitis unknown etiology - 6 5%), intrauterine infection (4.6%), aseptic meningitis (4.6%), sepsis (2.8%), viral and mycoplasma pneumonia (2.8%), viral hepatitis (2.3%), pneumocystis pneumonia (0.9%) and pertussis + enterocolitis (0.9%).

Severe immunodeficiency states, the majority (88.2%) patients who died confirmed the results of morphological studies: change in the thymus (hypoplasia of up to 1-4 m and atrophy) were found in 27.9%, accidental transformation of the thymus - 11.7%, thymomegalia (up to 40 gr.) - 5.6%, dysplasia - in 3.9%. There were also revealed morphological immaturity of organs from 11.7%, adrenal hypoplasia - 1.7% etc.

The analysis of morphological signs children who died from infectious diseases was probably due to decrease in specific T-cell immunity (early thymic involution) in the majority of children in the first year of life, malnutrition (15%), morphological immaturity of internal organs (11.7%).

The study of relative risk probability of death in patients with infectious diseases in children is presented in the Table 1.

Table 1.

Relative risk of fatal outcome of children with infectious diseases

Criteria	relative risk	the possibility of death(+)
1	2	3
Age <1 year	2,26	+

Age> 1year	0,2	-
daydisease> 3 days	1,55	+
Intrauterine infection	7,32	+
Hypoxic ischemic encephalopathy	1,3	+
Intracranial hypertension	1,17	+
Nosocomial infection	1,0	+
Severe intoxication	1,19	+
hemodynamic disturbances	1,35	+
Vomiting	0,72	-
Convulsions	8,86	+
meningeal signs	0,32	-
Focal brain symptoms	2,6	+
Cerebral edema	1,89	+
Respiratory failure	1,26	+
DIC syndrome	2,11	+
Toxic shock	1,56	+
anemia	2,39	+
leukocytosis>10^9	2,1	+
increased sed rate>10мм/ч	0,84	-
Total blood protein <65g / l	4,04	+
Prothrombine test<80%	4,25	+
Fibrinogen> 400 mg	4,26	+
fibrinogen <200 mg	5,0	+
creatinine> 115 umol / L	0,74	-

Conclusion:

1. Development of death in children with infectious diseases contributed to swelling of the brain, which is one of the most dangerous complications.
2. Cerebral edema is results of different pathophysiological mechanisms, such as toxic, hypoxic and inflammatory which can be combined and forms a vicious circle, requiring complex treatment of urgent assistance.
3. Main risk factors for death were: early age, late submission, nosocomial infections; the presence of hypoxic ischemic encephalopathy; hemodynamic instability, convulsions, development of emergency syndromes.

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PREGNANCY OUTCOME AFTER ELIMINATION OF TORSION OF THE APPENDAGES OF THE UTERUS WITH ISCHEMIC-HEMORRHAGIC CHANGES.

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Aim of the study. The results of the operation were analyzed for the twisting of the uterine appendages, which occurred in 6-21 weeks of pregnancy in 6 patients.

Materials and methods of examination. In all patients before pregnancy, there was a stimulation of ovulation accompanied by hyperstimulation of the ovaries, which, apparently, contributed to the twisting of the appendages. Patients were hospitalized for acute pain in the lower abdomen. At a clinical examination, you showed an increase and sharp painful appendages of the uterus on one side, which made it possible to diagnose. It was confirmed by ultrasound. From the moment of the disease to the operation it took from 24 to 150 hours.

Survey results. Torsion elimination was carried out. The diameter of the ovaries reached 9-20 cm. After observation for at least 15 minutes, the color of the uterine appendages was restored. In 2 patients an ovarian biopsy was performed; ischemic-hemorrhagic changes of its tissue are revealed. No complications were noted.

Conclusion. The course of pregnancy after the operation was uncomplicated: in 2 patients the pregnancy continued to develop (with the operation performed in the first trimester), 3 had a birth on time, 1 had a cesarean section.

THE USE OF ERGOTHERAPY IN PATIENTS WITH STROKE CARDIAC PATHOLOGY

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A stroke is the outcome of a variety of diseases of the blood vessels of the brain, heart and blood. But most closely, the pathogenesis of stroke is associated with cardiac pathology. Cardioneurology is a new integrative direction of

medicine at the junction of several clinical disciplines (neurology, cardiology, cardiac surgery, neurosurgery), the purpose of which is to study the heart in various forms of vascular lesions of the brain, improving diagnostic methods, prevention and the treatment of cardiac complications in stroke. The phased stabilization and increase in the functionality of life support systems is the basis for expansion of the mode of motor activity.

Purpose of the study. To develop and put into practice an optimal model for the organization of inpatient rehabilitation care for patients who have had a stroke with concomitant cardiological pathology.

Materials and research methods. The treatment of 25 patients aged 52 to 78 years, mean age - 65 (16 males and 9 females) in acute ischemic stroke (IS). Patients consisted of two groups of observation. In 13 patients of group I (study group), AI proceeded against the background of cardiac pathology (coronary artery disease, exertional angina, atrial fibrillation). In Group II (the comparison group) there were 12 patients without cardiac pathology. Conducting ergotherapy, in particular the Montessori method using the FIM (Functional Indepence Measure) scale.

Results. The test groups of patients were comparable in terms of the presence and severity of neurologic deficit, but I group where patients with observed cardiological pathology, expressed amount of paresis of limbs was significantly higher ($p<0.05$). According to the FIM scale: Group I: up to 30.3 (33.3%), after 56 (61.5%) Group II: up to 32.5 (35.7%), after 71.5 (78.5%).

Conclusion. In patients undergoing ischemic stroke on the background of cardiac pathology, there is a more pronounced neurological deficit and movement disorders, they have worse indicators on the FIM scale compared with patients with stroke without cardiac pathology. By hiring post-stroke rehabilitation, it is possible to achieve positive results in patients with cardiological pathology.

THE MEASUREMENT OF REACTION TIME OF FIRST-YEAR VOLGSMU STUDENTS

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In the course of Physics in the medical universities future doctors carry out various laboratory experiments. In indirect measurements of some physical quantities, the human reaction time may affect the accuracy of the experimental values. This may be important in determination of such physical quantities in which it is necessary to measure time, among other measurements. Therefore, in

our study we have measured the reaction time of first-year students and given the primary characteristics of this physical value.

Purpose and objectives. The purpose of this research is to determine the reaction time of a person on the example of first-year students of Volgograd State Medical University. To achieve this goal, the following tasks were set: 1) the choice of a method for measuring the reaction time of a person; 2) the evaluation of the dispersion of the experimental values obtained in each study and in the experimental group; 3) the analysis of the results.

Materials and methods. As a means of determining the reaction time of a person, we used a measuring ruler with millimeter divisions. Students worked in pairs, where one researcher placed his hand near the zero reading of the measuring scale, and the second without warning was letting the ruler go. Human reaction time was determined by the formula $t = \sqrt{\frac{2h}{g}}$, where g is the acceleration of free fall (9.81 m/s^2), h is the position of the fingers of the first researcher on the scale of the ruler, i.e. the distance traveled by the ruler in a condition of free fall for the time necessary for the student to react to its movement. Further data processing was carried out using MS Excel and Statistica.

Results and discussion. Fourteen international 1st year students of General medicine faculty of Volgograd State Medical University from India, Iraq and Ghana took part in our experiment. Each student made 20-25 trials, totally 340 measurements of reaction time had been done. The average reaction time of each student varies from 0.134 s to 0.236 s, the average time of sampling is 0.183 s (see Table 1).

Table 1

student's #	minimum time, s	average time, s	maximum time, s	number of trials
1	0.143	0.178	0.202	20
2	0.128	0.167	0.202	20
3	0.124	0.166	0.239	25
4	0.101	0.163	0.212	25
5	0.135	0.178	0.230	25
6	0.110	0.161	0.202	25
7	0.150	0.215	0.271	25
8	0.090	0.134	0.197	25
9	0.212	0.236	0.247	25
10	0.150	0.202	0.247	25
11	0.110	0.178	0.243	25
12	0.135	0.194	0.267	25
13	0.128	0.195	0.282	25
14	0.128	0.183	0.263	25

It should be noted that in all the measurements the reaction time varies from 0.09 s to 0.28 s, which enables making assumptions about the reasonability of a study to evaluate the influence of human reaction time on the accuracy of the measurement of the physical quantity. In this case, the data combined into a single sampling are belong to the normal distribution law (due to results of Kolmogorov-Smirnov test, Lilliefors test and Shapiro-Wilk test), Fig.1.

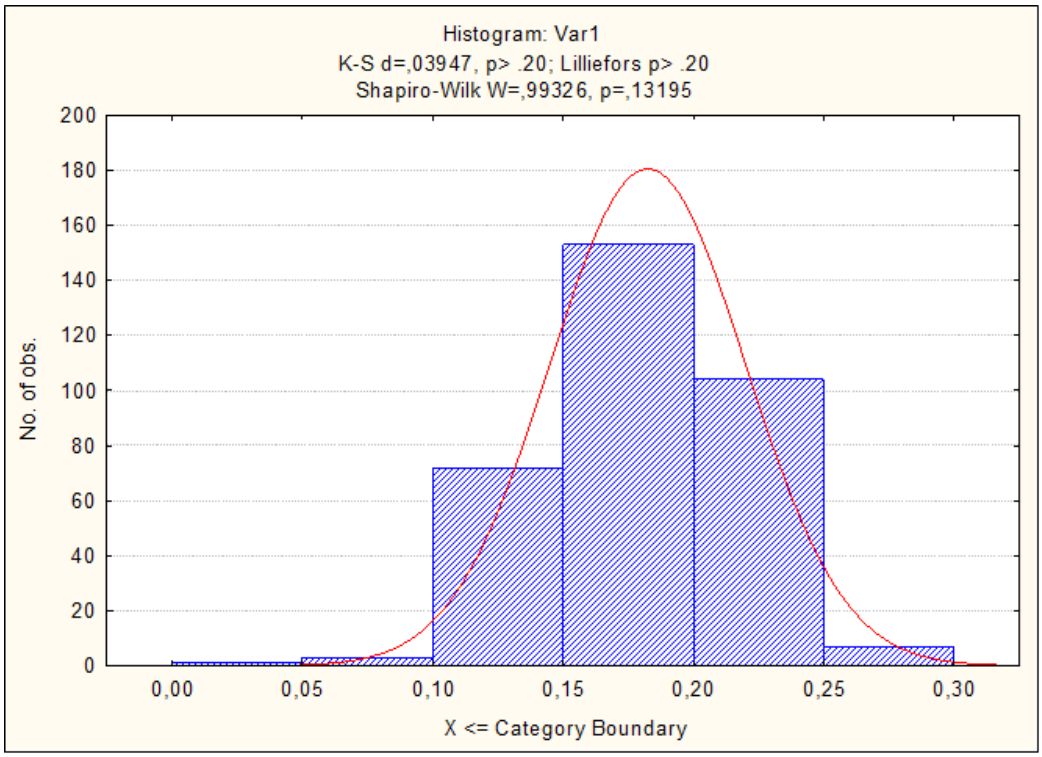

Figure 1. Frequency histogram and expected normal distribution curve

The distribution of reaction time for each student in accordance with the normal distribution law is performed in 13 cases out of 14, that is, in 92.9% of cases. Thus, according to the obtained experimental sample, the range of human reaction time values with a probability of 95% is from 0.11 s to 0.26 s, which indicates the presence of a noticeable variation of values. That should be taken into account in the organization of the experiment on the indirect determination of the physical quantity, which implies the measurement of time.

Summary. Our study on the measurement of human reaction time allowed, firstly, to determine the arithmetic mean value of time, and secondly, to obtain the spread of experimental values and to study the distribution pattern of this random variable. Thus, our research work has laid the foundation for assessing the impact of human reaction time on the accuracy of indirect measurements of physical quantities.

BIOTRANSFORMATION OF PETROLEUM PRODUCTS USING BACILLUS SUBTILIS

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Biotransformation is a convenient method based on using the ability of many bacteria and lower fungi to effectively involve difficult-to-reach substrates, including toxic substances, in metabolic processes and can be carried out under different conditions using different methodological approaches [1].The use of microorganisms as biotransformers of toxic pollution, is an environmentally safe way to combat pollution (oil spills, leakage of toxic waste, etc.) and does not pose a danger to already existing natural biocenoses.

The purpose of the work is to study the microbiological landscape of sewage of gas stations with the release of Bacillus subtilis strains from them the ability to dispose of toxic organic compounds in vitro. The object of research: B. subtilis strains isolated from the sewage of the stations "gas stations" in Karaganda city located at: gas station No.1 Tereshkova street, st. 2/3; Gas station No2 Bytovaya street 15/18; Gas station No3 Komissarov street 45/2 and collection strains of B. subtilis from the Museum of the Department of Immunology, Allergology and Microbiology of the NAO MUK. The total number of cultures studied is 30.

Materials and methods. Accounting for microflora in wastewater was carried out by direct seeding on nutrient agar (PA) for microorganisms using the standard ten-fold serial dilution method and the Gouldi method (table 1). Grown up isolated colonies were tested for purity by sieving on modified mineral and Simmons agar medium (CM) (where sodium citrate was replaced with sodium chloride to remove additional carbon sources) containing the appropriate carbon source, followed by microscopy. The cups were incubated in a thermostat at 28 and 37º C for 2-3 days. In the control variant, the cultures were seeded on CM medium without hydrocarbons. Sewage samples were taken in the autumn of 2018.Identification of isolated cultures of microorganisms was carried out by studying the morphology of bacteria, their cultural and biochemical characteristics, according to the determinant of bacteria Burgi (Knieg N.R., Holf Y.G., 1984).To determine the ability of isolated and collection strains of Bacillus subtilis to grow on solid hydrocarbons. Microorganisms were grown in mineral medium with the addition of naphthalene, gasoline, fuel oil. Naphthalene in the form of powder was added to the nutrient medium at a concentration of 2 g/l and 0.5 g/l, respectively. Gasoline and fuel oil are also in a concentration of 2 g/l and 0.5 g/l. The same nutrient medium with the addition of glucose was used as a control. Growth was assessed after 7-10 days (table 2). In order to reveal the

ability to grow crops in the presence of petroleum hydrocarbons, the studied cultures were introduced into rocker flasks with 10 ml of medium containing, as the only carbon and energy source, 3, 5, 7% of Tengiz crude oil (Fig. 1). The flasks were placed on a rocking chair (220 rpm) at a temperature of 25º C for 20 days. The destructive activity of the cultures was judged by qualitative and quantitative indicators. Qualitatively destructive activity of the cultures was determined visually by changing the oil film and the nutrient medium, quantitatively - by the degree of utilization and accumulation of biomass. After 20 days of growth, the residual oil content was checked by the gravimetric method. The residual oil from the culture fluid was extracted with chloroform (50 ml of medium; 15 ml of chloroform) in a separatory funnel. Chloroform was added portion wise, rinsing the flask. Then the chloroform extract was evaporated on a rotary evaporator. After evaporation, the samples were weighed. The amount of oil consumed was determined by the formula: $A = (a_1 - a_2) / a_1 100\%$, where A is the amount of oil consumed,%; A_1 - the amount of oil applied; A_2 - the amount of residual oil.

Research results and discussion:

Table 1

Quantitative accounting of microbial cultures of wastewater stations "gas stations" (Karaganda city) (CFU/ml)

Cultures	**Sampling point**		
	Gas station №1	**Gas station №2**	**Gas station №3**
Pseudomonas Spp.	10^5	10^1	10^1
Bacillus Spp.	10^5	10^5	10^3
Escherichia Coli.	10^2	10^7	10^2
Micrococcus Spm.	10^2	10^5	10^3
Candida Albicans	10^2	10^4	10^2
Sarcina	10^2	10^1	10^1

Table 2

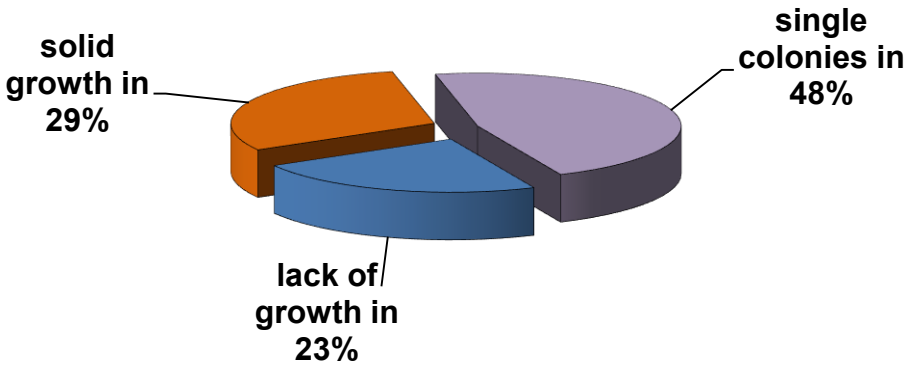
Growth of isolated cultures on an agar medium with different carbon sources

№ cultures	**Carbon sources**						**Control**
	naphthalene		**petrol**		**fuel oil**		
	2 г/л	**0,5 г/л**	**2 г/л**	**0,5 г/л**	**2 г/л**	**0,5 г/л**	**glucose 1%**

Bacillus Spp. D1	-	+++	+	+++	+	++	+++
Bacillus Spp. D2	+	+++	-	+++	+	+	+++
Bacillus Spp. D3	+	+++	+	+++	+	++	+++
Bacillus Spp. D4	++	+++	+	+++	-	++	+++
Bacillus Spp. D5	++	+++	++	+++	++	+++	+++
Bacillus Spp. D6	-	++	+	+++	-	++	+++
Bacillus Spp. D7	+	+++	++	+++	-	++	+++
Bacillus Spp. D8	-	+++	++	+++	+	++	+++
Bacillus Spp. D9	-	+++	++	+++	+	++	+++

“+++” - continuous growth; “++” - moderate growth; “+” - single colonies; "-" - no growth

Analysis of physiological and biochemical characteristics allowed us to assign the culture D1-D5 to the species Bacillus subtilis; the rest are Bacillus subtilis collection strains from the Museum of the Department of Immunology, Allergology and Microbiology of the NAO MUK.



Picture 1. Ratio of 30 cultures in growth on mineral medium with 5% Tengiz oil.

Conclusion A new strain D-5 of B. subtilis was isolated from the sewage of the gas station stations. The bacterium is able to biotransform and dispose of toxic organic compounds, which has been proven by in vitro experiments. Based on microscopy, strain D-5 was assigned to the genus Bacillus. The obtained data can be used to further study the ability of natural and collection strains to utilize toxic organic compounds. These research results will significantly expand the range of microorganisms capable of oxidizing petroleum products.

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RISK FACTORS OF ATHEROSCLEROSIS BETWEEN MALE AND FEMALE

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Cardiovascular disease as a complication of atherosclerosis is today the most important cause of morbidity and mortality among elderly people. Although in the earlier decades of life women have a lower prevalence of cardiovascular disease, the later increases with age, reaching a similar level to that of men around the age of 75. Atherosclerosis is a disease in which multiple factors contribute to the degeneration of the arterial wall. It is evident that intensity and duration of injury define the severity of the alterations. Many risk factors were identified as having influence on the progression of atherosclerosis, mainly age, sex, heredity, diet composition, tobacco smoking, physical activity, obesity, systemic arterial hypertension, dyslipidemia, diabetes mellitus, plasma fibrinogen levels, hyperhomocysteinemia, left ventricular hypertrophy and psycho-social factors.

Objective. The goal of the present study is to analyze in elderly patients of both sexes for the prevalence of major risk factors for atherosclerosis and study their association with the complications of atherosclerosis.

Methods. The study included 42 patients undergoing treatment at the cardiology department of the Nikolai Pirogov City Clinical Hospital in the period from April 1 to April 18, 2019. Occurrence of hospitalization was ACS or scheduled revascularization. Depending on the gender, all patients were divided into 2 groups. The first group included women aged 55 to 65 years, the second group included men aged 60 to 80 years. In all patients, atherosclerotic lesion of the coronary arteries was confirmed by coronary angiography.

Results. When comparing the groups, it was noted that the age of the patients was significantly different: the average age of men was 60 years, the average age of women was 70 years. The number of men enrolled in the study was 28, the number of women 14. The group of men exceeded the group of women in the number of smokers, respectively 70% and 0%. At the same time, the number of men was 24 of the most. The body mass index for women was >35 kg/m^2, and for men <34 kg/m^2. However, the abdominal circumference in men is 104cm, and in women 90cm.

Risk factors for atherosclerosis such as arterial hypertension, diabetes mellitus, chronic kidney disease were found in 30% of patients. Hypertension in women was observed more frequently than in the group of men. However, women were more aware of their disease and regularly took antihypertensive drugs. Men, on the contrary, could not name the drugs they were taking, and the intake was often episodic. In the group of men, type 2 diabetes was identified in 35% of patients, in women 56%. All the patients received insulin therapy, but not all - with the achievement of the target level of glycated hemoglobin. Chronic kidney disease (RSF) was detected in 32% of men and 54% of women. At the same time, the decrease in the glomerular filtration rate in men was less significant than in women. But none of the groups of eGFR was below 30 ml/min/1.73 m^2.

The lipid profile was distributed as follows: the level of total cholesterol in men was 5.7mmol/l, which was not significantly different from the average values of total cholesterol in women – 5,2mmol/l. The level of LDL-cholesterol in men was 3,7mmol\l, and in women – 3,0 mmol\ l, HDL-cholesterol in men 40mg/dL in women is less than 50 mg/ dL, and TAG in men 2.26 mmol\ l, in women 3.32mmol\ l.

Systemic arterial hypertension is considered one of the most important causes of morbidity and mortality in the adult population of the civilized world, both by its high prevalence and by its complications. After adjustment of the variables in the regression model, we observed that in the total of elderly patients, risk factors for complications of atherosclerosis were: triglycerides ≥250mg/dL, hypertension, and male sex.

Among men, the risk factors were: total cholesterol, LDL-cholesterol, abdominal circumference and tobacco smoking.

Among women, the risk factors were: tryglicerides, diabetes mellitus and hypertension.

Conclusion. This study evaluated in elderly patients of both sexes, in order to determine the impact of systemic arterial hypertension, dyslipidemia, diabetes mellitus, tobacco smoking, and obesity, considered risk factors of cardinal importance that can be controlled or even removed.

RISK FACTORS ASSOCIATED TO CARDIOVASCULAR DISEASES IN KYRGYZSTAN

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Introduction: The mortality rate in the working population is due to cardiovascular diseases (WHO, 2002, Lazzini et al 2009). The highest CVD associated death rates worldwide are found in Ukraine, Kyrgyzstan and Russia (WHO, 2018). Of all deaths, 80% are due to Noncommunicable diseases, 40% of which are related to cardiovascular diseases. The death rate of the age group of 30-70 years is about 28% of NCDs including Ischemic stroke and Coronary heart disease (National Statistics Data, 2015, Institute of Health Metrics, 2018). Kyrgyzstan takes sixth place in rate of mortality from CVDs in Eurasia. Thus, more than 19,000 people/year die due to CVDs in Kyrgyzstan, which makes the death rate >50/day. Death rate from CVDs is caused by (80%) CHD (including acute myocardial infarction) and cerebrovascular diseases (Kydyralieva RB et al, 2009). The highest premature mortality rate in the WHO European Region due to CVDs is recorded in Kyrgyzstan (Jill Farrington et al, 2017). In recent years, however, a decrease in total death rate due to CVDs has been considered in Kyrgyzstan, with a fall from 331.3 in 2012 to 300.9 per 100000 in 2015 (Mid-term Review, 2016).

Risk factors for cardiovascular diseases: High blood pressure, according to the health assessment has been considered very common in both men and women, and always ranks at top of the list of health problems among Kyrgyzstan population (National Statistics Data, 2015). Among adults of 25–64 years age, an increase in high blood pressure by 42.9% (similar in males and females) with an

elevation of total cholesterol levels by 23.6% (more common in females than in males) has been seen. (Kyrgyzstan STEPS, 2015).

Unhealthy diet, high blood pressure, and tobacco use has been considered as leading risk factors of CVDs (Health Metrics, 2018).

Diet: Mostly the foods sold in Bishkek, Kyrgyzstan are rich of trans-fatty acids and salt. Compared to consumption of sugar-sweetened beverages (SSB), other dietary factors, such as high dietary sodium intake and low level of consumption of fruits and vegetables are considered as more prominent causes of absolute burden of mortality in Kyrgyz Republic (Khatibzadeh S et al, 2014, Danaei G et al, 2014).

Alcohol consumption: Besides others factors, alcohol consumption is also one of the significant risk factors of CVD related deaths in Kyrgyzstan. Among the people aged 15 years and older, the total annual per capita alcohol consumption was 4.3 liters of pure alcohol per year in 2011 (Evaluation, 2018). Heavy alcohol consumption is considered as a risk factor for CVDs (Corrao G et al, 2000). Light consumption of alcohol may not have effect on CVDs (Corrao G et al 2000); however, there is no controlled researches with sufficient long-term data (Ronksley PE et al, 2011).

Smoking: Tobacco-associated annual mortality in the world is currently 6 million (including exposure to secondhand smoke) (World No, 2011). In the year 2000, 2100 people died due to smoking in Kyrgyzstan (National Tobacco, 2005). According to data, in the year 2013, tobacco smoking among population aged 15 years and older was recorded as 50.5% for men and 3.7% for women (Health Metrics, 2018).

Physical activity: One another risk factor for CVDs is considered lack of physical exertion. Studies have proved that low physical exertion causes CHD and stroke (Kodama S et al, 2013). Cohort studies showed that physical exertion helps decrease the risk of coronary heart disease and stroke among both men (RR 0.76 95% CI 0.70–0.82, $p < 0.001$) and women (RR = 0.73, 95% CI 0.68–0.78, $p < 0.001$). In addition, a moderate level of physical exertion can help decrease CVD incidence in both men (RR = 0.89, 95% CI 0.82–0.97, $p = 0.008$) and women (RR =0.83,95% CI 0.67–1.03) (Li J et al, 2012).

Obesity: Hypertension and obesity are considered as top three leading causes of disease burden among women and among the top five leading causes of disease burden among men in the Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) (WHO, 2006a). About one out of three adults are obese and CVDs accounts for about two-thirds of all deaths in each of the above mentioned republics (WHO, 2006b). In the year 2014, there were (45.2%) overweight males and (49.1%) females aged 18 years and above in Kyrgyzstan (Institute of Health Metrics, 2018).

Aims of the present study:

1. Characteristics of food habits associated with CVD in Kyrgyzstan.
2. Smoking and physical exercise associated with CVD in Kyrgyzstan.

We studied the association of four indicators:

1. Dietary habits (fruits, vegetables, fatty foods, alcohol)
2. Physical activity
3. Bad habits-smoking
4. BMI

Material and methods:

Data gathering: We used biochemical analysis (Lipid profile) of 20 patients, who have been observed in the polyclinic to explore the health status, health determinants and prevalence of cardiovascular diseases among the residents of Kyrgyzstan.

Questions and questionnaire instruments: The frequency of consumption was given per day, per week, per month depending on the food item and drinking. We also included questions about weight, height, physical activity, smoking habits. The specific questions are described in the following;

1. Dietary habits were measured by three questions: "How often do you eat a day and at what time?", "Which dishes do you prefer more", "How do you cook?" The response options throughout the KSQ are: (1) One or more times a day, (2) 2-3 times a week, (3) 1-3 times a week, (4) Less than once a week, or (5) never. Following the WHO guidelines on healthy nutrition, we regrouped the responses: 1 as (1) - referents; from 2 to 5 as (2) - risk group. "How often do you eat vegetables and salads (except vegetable juices and potatoes)?" The response options throughout the KSQ are: (1) One or more times a day, (2) 4-6 times a week, (3) 1-3 times a week, (4) Less than once a week, or (5) never. We regrouped the responses: 1 as (1) referents; from2 to 5 as (2) – risk group.

2. Alcohol consumption was measured with A) "How often do you drink alcohol?" The response options throughout the KSQ are: (1) 4 times a week or more, (2) 2 to 3 times a week, (3) 2 to 4 times a month, (4) once a month or less (5) never .B) "How many glasses of alcohol do you drink on a typical occasion? One 'glass' means 50cl light beer, 33cl strong beer, 1 glass red or white wine, 1 small glass of strong wine or 4cl spirit (vodka, whiskey)". The response options throughout the KSQ are: (1) 1-2 glasses, (2) 3-4 glasses, (3) 5-6 glasses, (4) 7-9 glasses, or (5) 10 or more glasses.

We regrouped the variable:

Alcohol consumption: Males, who consume at least 2-4 times a month at least 5-6 glasses of alcohol as risk group, all other less frequent male drinkers as referents. Females, who consume at least 2–4 times a month at least 3-4 glasses of alcohol as risk group, all other less frequent female drinkers as referents.

3. Smoking was asked: "Do you smoke?" The response options throughout the KSQ are: (1) Yes, I do every day, (2) Yes, sometimes; (3) I smoked before regularly. (4) Never smoked. We regrouped the responses: from 1 to 3 as (2) risk group; 4 as (1) – referents.

4. Physical activity was asked, "During the last 7 days, on how many days did you do vigorous physical activities like heavy lifting, digging, aerobics,

or fast bicycling? Days per week", "How much time did you usually spend doing vigorous physical activities on one of those days? Hours per day, minutes per day, don't know/Not sure". The responses were converted to minutes per week. "During the last 7 days, on how many days did you do moderate physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking; days per week", "How much time did you usually spend doing moderate physical activities on one of those days? Hours per day, minutes per day, Don't know/Not sure". The responses were converted to minutes per week.

"During the last 7 days, on how many days did you walk for at least 10 minutes at a time? Days per week", "During the last 7 days, how much time did you spend sitting on a weekday? Hours per day, minutes per day, don't know/Not sure".

The responses were converted to minutes per week. In order to calculate total physical activity, the minutes of vigorous physical activity were doubled to equal the minutes of moderate physical activity. Thereafter, the minutes of vigorous and moderate physical activity as well as walking were summarized. Individuals with 150 or more minutes of moderate physical activity per week were grouped as (1) – referents, individuals with less physical activity as (2) – risk group.

5. Body mass index (BMI): Individuals were regrouped as follows: BMI<25 as (1) - referents, BMI ≥ 25 kg/m² as (2) - risk group.

Data Analysis

Results:

Table 1

Prevalence of cardiovascular disease in different socio-demographic groups (%), difference between groups

Factor risks	**CVD, n (%)**	**Referents, n (%)**	**Chi Square**	**P=value**
Gender			28.26	0.000
Male	69(29.5)	233(50.7)		
Female	165(70.5)	227(49.3)		
Age			373.37	0.000
18-29	3(1.3)	170(37.0)		
30-39	8(3.4)	161(35.0)		
40-49	36(15.4)	84(18.3)		

50-59	92(39.3)	28(6.1)		
≥60	95(40.6)	17(3.7)		
Nationality			17.29	0.004
Kyrgyz	67(28.6)	150(32.6)		
Russian	102(43.6)	137(29.8)		
Uzbek	30(12.8)	84(18.3)		
Korean	13(5.6)	25(5.4)		
Dungan	13(5.6)	50(10.9)		

Table 2

Prevalence of cardiovascular disease in different lifestyle groups (%), difference between groups

Factor risks	**CVD, n (%)**	**No CVD, n (%)**	**Chi Square**	**P= value**
Fruits			0.04	0.828
Referents	84 (35.9)	169 (36.7)		
Risk group	150 (64.1)	291 (63.3)		
Vegetables			0.24	0.621
Referents	81 (34.6)	168 (36.5)		
Risk group	153 (65.4)	292 (63.5)		
Physical activity			2.72	0.099
Referents	133 (56.8)	231 (50.2)		
Risk group	101 (43.2)	229 (49.88)		
BMI			62.91	0.000
<25kg/m²	71 (30.3)	286 (62.2)		

≥ 25 kg/m²	163 (69.7)	174 (37.9)		
Alcohol			3.87	0.049
Referents	221 (94.4)	448 (97.4)		
Risk group	13 (5.6)	12 (2.6)		
Smoking			0.95	0.328
Referents	166 (72.5)	31.4 (68.9)		
Risk group	63 (27.5)	142 (31.1)		

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THE ROLE OF INDICATORS OF FERROKINETICS AND ENDOGENOUS ERYTHROPOIETIN IN ANEMIA OF PREGNANT WOMEN

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The aim of the study was to improve the quality of medical care for pregnant women by improving the methods of treating anemia and preventing complications of childbirth.

Objectives of the study. To study the indicators of ferrokinetics in the dynamics of pregnancy, taking into account the severity of anemia.

Material and research methods. For the period from 2018-2019. We examined 90 pregnant women with anemia, 50 of them were untreated, received in the maternity ward with labor, and 40 were treated in the department of

pathology of pregnant women. The control group consisted of 40 conditionally healthy pregnant women. Under our supervision and examination, there were 40 pregnant women with anemia, aged 17-35 (28±0.1) years, registered with antenatal clinics and treated in the pathology department of pregnant women at the city maternity complex No. 1 in Bukhara.The selection criteria for pregnant women in the groups were hemoglobin content of 95 g / l and below, serum iron 15 μmol / l and below, the gestational age of 20 weeks or more, and the absence of other blood diseases. The main complaints of pregnant women with anemia were general weakness, fatigue, shortness of breath during mild exertion, flickering "flies" before the eyes, dizziness, nasal bleeding, sleep disorders and mood for no apparent reason, decreased appetite, memory loss. Depending on the type of anti-anemic therapy, the patients were divided into 2 groups: the comparison group - 18 pregnant women - received ferron 100 mg, 1-2 capsules daily for 2-3 months, until normal hemoglobin level in the blood was reached; the main group - 22 pregnant women - received ferron 100 mg in 1-2 capsules daily for 2-3 months, until normal hemoglobin level in blood and REPO 2000 MED were achieved subcutaneously after 3 days, 2-3 injections depending on the severity of anemia.

Conclusions. A study of ferrokinetics in the dynamics of pregnancy showed that anemia is iron deficient, with the degree of reduction in iron, ferritin and increase in transferrin levels depends on the severity of the disease.Treatment of IDA with iron-containing drugs only is not effective enough. Hb level <90g / l and resistance of anemia to treatment with Fe preparations is an indication for REPO therapy, especially when preparing for delivery. Combined ferrotherapy with REPO is an effective and relatively fast method for stopping the IDA of pregnant women that allows replacing blood transfusion.

LITTLE-INVASIVE INTERVENTIONS (RSWL) IN THE TREATMENT OF URINARY DAMAGE

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Introduction. The prevalence of urolithiasis (UD)is progressively increasing and in the spectrum of urological diseases in frequency is 30-45%, is not an exception for the Republic of Tajikistan.

Aim. Study of the effectiveness of minimally invasive intervention of remote shock-wave lithotripsy (RSWL) in the treatment of patients with UD.

Material and methods. Since 2009, in the State Institution "Republican Scientific and Clinical Center of Urology" (RSCCU)the RSWL has been conducted by UD patients on a Chinese-manufactured BA UN SHAN lithotripter with the spark-discharge principle of shock wave generation, equipped with an ultrasonic guidance system.

From July 2009 to December 2017, in RSCCU, 760 patients with UD were given RSWL. The age of patients ranged from 9 to 89 years. Of the 760 patients, 478 were men and 282 women.

Results. 760 patients suffering from UD were given 822 sessions of RSWL: 53 of them had a second session of RSWL and 3 sessions of RSWL.

The indications for the RSWL were not dense concrements in size up to 1.8 cm, but in some patients the size of the stones reached 2.2 cm. 244 (29.68%) had a remote shock-wave nephrolithotripsy, the upper ureterolithotripsy-327 (39.78%), lower ureterolithotripsy - 232 (28.22%) and cystolithotripsy - 19 (2.32%) times. At the same time, complete crushing of stones was observed in 674 (88.7%) patients, partial destruction of the stone or crushing of calculus in the form of stone path in 22 (2.9%) patients. After a remote lithotripsy session, patients were prescribed antibiotics, antispasmodics, and water load. During the complete and partial crushing of stones, stone fragments came out independently with urine. In 64 (8.4%) patients, the stones did not collapse. Later, as agreed, the patients were exposed to open surgical interventions. The average bed-days for RSWL was 3.0 (1-5) days.

Conclusion. Remote shock wave lithotripsy is minimally invasive, highly effective and in most cases the method of choice for treating patients uffering from urolithiasis.

MODERN PRINCIPLES OF DIAGNOSTICS AND CLINICAL FEATURES OF MULTIPLE MYELOMA

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Introduction. Myeloma, also called multiple myeloma (MM), generalized plasmocytoma or Rustic-Calera disease, refers to paraproteinemic hemoblastosis. It is a tumor of the b-lymphocyte system and is able to secrete monoclonal immunoglobulin. The study of multiple myeloma has been and remains one of the urgent tasks of medicine.

Aim. To evaluate clinical manifestations of myeloma and optimization of diagnostic methods.

Methods. Registered in the cancer research national medical center Republic of Tajikistan for the period 2017-2019 were 20 patients with multiple myeloma. The age of patients varied from 30 to 75 years. The average age of

patients was 50 to 55 years. There were 8 women (40%) and 12 men (60%). Patients were distributed by regions of Tajikistan as follows: Dushanbe city and regions of Republican subordination - 10 (50%), Khatlon region – 7 (35%), Sughd region - 3 (15%) patients. All patients underwent General clinical studies, bone marrow puncture and additional methods (x-ray, ultrasound and CT).

Results and discussion. In all 20 patients, the main complaints were pain, localized in the spine, chest, as well as pain in the limbs. Also, according to the results of the General blood test, 5(25 %) patients were found to have severe anemia, 6 (30%) - anemia of moderate severity and 9 (45%) - mild anemia. The biochemical analysis of blood revealed an increase in the level of creatinine in 2 (10%) patients, an increase in the level of urea in 1 (5%) patients and hypocalcemia in 3 (15%) patients, hypoproteinemia in 5 (25%) patients, hyperproteinemia in 2 (10%) patients, the remaining 7 (35%) patients had indicators of total protein within normal limits. Studies of bone marrow punctures in 20 patients were identified plasma cells.

Conclusions. Characteristic syndromes in patients with multiple myeloma are: pain syndrome, anemic syndromes and kidney damage syndrome. Diagnostic criteria are: 1) the presence of plasma cells more than 10% in bone marrow punctate; 2) determination of serum paraprotein more than 35g/l (IgG) or more than 20g/l (IgA).

MAGNETIC RESONANCE IMAGING IN THE DIAGNOSIS OF MULTIPLE SCLEROSIS.

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Introduction Multiple sclerosis is a chronic demyelinating disease of the central nervous system that is increasingly common at the age of 20-30. There are no specific symptoms of multiple sclerosis and mainly diagnostics is carried out by instrumental means. The MR tomography method is recognized as the gold standard for diagnosing and monitoring the course of MS (multiple sclerosis), and foci of demyelination are detected, the detection of which clearly testifies to this terrible degenerative disease of the nervous system. The number of patients with MS is increasing from year to year not only in European countries, but also in the Crimea. So if according to the department of neurology of the RKB named after I.A. Semashko 4 years ago, about 140 patients were treated annually. In 2016, 226 people were treated in the department.

Purpose. To study MRI signs of MS when the device is operated in various modes, to assess the role and specificity of using gadolinium containing contrast agents in MRI.

Research methodology. The analysis of MRI data in 30 patients with a confirmed diagnosis of multiple sclerosis. Among the patients with multiple sclerosis were 10 males and 20 females. By age, they were distributed as follows: 20-25 years - 5 patients; 26-30 years - 7 patients; 31-40 years -9 patients; and 9 are over 40 years old. In all patients, this pathology, with typical symptoms. Clinical manifestations of the disease began gradually, but sometimes there was a sudden loss of vision in one eye and the patient complained to the oculist with complaints of visual impairment and then got into a consultation with a neurologist. Were often observed weakness in the lower limbs, loss of surface sensitivity of the limbs, general weakness and shakiness when walking. The general psychoemotional status in the form of memory disorders, attention worsened, and the behavior of a person changed. All these symptoms appeared together or separately, depending on the localization of the pathology in the nervous system. The studies were conducted on a magnetic resonance imaging tomograph "SIEMENS MAGNETOM ESSENZA" with a magnet power of 1.5 T. A contrast agent was intravenously injected into all patients. A contrast agent (gadovist) was administered with the calculation of 0.1-0.2 mg/kg, immediately before conducting a diagnostic study. The MRI study necessarily included the study of the brain in FLAIR mode (fluid attenuation inversion recovery). This mode is a step-by-step inversion-recovery with a long T1 used to eliminate the influence of fluid in the resulting MR image. Pathological processes in which the water content in the tissues increases, as a rule, are hyperintense in FLAIR images., Especially with cortical localization, that is, it is possible to visualize focal changes that are either not visible or are poorly determined by other MRI modes.

Experts say that the FLAIR regimen is useful not only in the study of patients with MS but also of patients with subarachnoid hemorrhages, ischemic disorders, and brain injuries, and post-contrast FLAIR images are included in protocols for diseases such as meningitis. The resulting MR images were necessarily analyzed in three projections. All studies complied with a standardized protocol for MS.

The results of the study. Magnetic resonance imaging revealed the most typical location of foci, namely: on the horns of the lateral ventricles, in the inner capsule, corpus callosum, bridge, on the pedicle of the midbrain and in the cerebellum. The white matter of the trunk, around the aqueduct and the bottom of the IV ventricle, is most often subject to pathological changes. In the study, characteristic changes of demyelination, in the white matter of the brain, were determined in all cases on T2 weighted images, in the form of high-intensity foci. Gadolinium preparations were used to assess the activity of multiple sclerosis. In 60% of patients with contrast enhancement, the active phase of the disease was determined, which manifests itself best at 10-15 minutes after the introduction of gadolinium. During the active phase, active production of antibodies against their own proteins occurs. Namely, against the myelin

sheaths of nerve fibers. Destruction is manifested in various localizations of the brain and, as a result, typical clinical signs characteristic of multiple sclerosis are observed, and in the course of the study, hyperintensive foci of contours become obscure. Later, as a result of adequate treatment, the intensity of foci decreases sometimes they even disappear, and the contours acquire a certain clarity. By this time, the intensity of images of these foci becomes more significant. It was revealed MR-research typical localization foci of demyelination in the brain - periventricular zones, usually in the corner between the caudate and the corpus callosum, in the areas adjacent to the upper lateral angle of the lateral ventricles, in the white matter of the seminal center, temporal lobes, as well as in the brain stem and cerebellum. On the border of gray and white matter or in gray matter there is a small proportion of foci (5-10%). Their size is from 0.2 cm to 3.0 cm, usually oval or rounded

Conclusion. Standard MRI with contrasting, possessing high informational content, reveals in most cases specific signs of MS. The introduction of the drug allowed us to determine the activity of the pathological process, which also allows us to diagnose MS in the early stages of the disease. Flair mode allows you to better identify focal changes in the brain in MS.

CORRELATION BETWEEN DEPRESSION AND ACADEMIC PERFORMANCE AMONG MEDICAL STUDENTS

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Introduction. According to the statistics of the World Health Organization more than 300 million people all over the world suffer from depression and it is predicted to be the second highest medical cause of disability by the 2030 year, second only to HIV/AIDS. As a serious mental health condition, depression can lead to an extreme reduction of person's vitality, vigor and spirits. Depression among medical students is observed more frequently compared to other group of students. Consequently, it may cause a decrease in their academic performance and gradually lead to deterioration of medical services provided by healthcare professionals.

Aim. Studying the correlation between depression and academic performance among medical students.

Methods. The present study was descriptive in nature. Sample of the present study was consisted of 800 students studying in medical faculty, selected by simple random sampling technique from the first to the sixth course. Data was collected by using survey method. In order to measure the depression, there was used a questionnaire including 15 items (lack of energy or feeling tired all the time, having difficulty sleeping (or sleeping more than usual), poor appetite,

unexplained physical aches and pains, self-harming, feeling sad and in low spirits all the time, having no interest in anything, not getting any pleasure out of life, feeling anxious, having difficulty concentrating or remembering things, difficulty in making decisions, low self-confidence and self-esteem, withdrawing from family and friends, feeling helpless and hopeless, feeling guilty, as if everything that goes wrong is your fault), and scored on a 3 point like scale (1-never, 2-sometimes, 3-frequently). Their level of depression was calculated by summing up all of the points and ranked as low (1-15 points), medium (16-30 points) or high (31-45 points) according to their answers. In order to find out the effects of depression on students' academic performance there was used another questionnaire including 5 items (gained credits, interest in study, making progress, out of program study, participation in social life of faculty). Students answered each item using a 3 (1-low, 2-medium, 3-high) point like scale format. Their level of academic performance was calculated by summing up all of the points and ranked as low (1-5 points), medium (6-10 points) or high (11-15 points) according to their answers.

Results. As a result of a research it was revealed that 8 percent of students suffer from high level of depression, 78 percent from medium and 14 percent of them from low level depression. 72 percent of students with medium and high level of depression showed low and 25 medium academic performance, only 3 percent of them noted high academic performance. Correlation between high level of depression and low academic performance was observed as significant (97 percent).

Conclusions. So it can be concluded that students who suffer from medium and high level of depression expose low academic performance. The students who have low level of depression showed medium academic performance. And there was a significant difference between the academic performance of students with high and low level of depression. Based on results of the study, it should be considered that there is a strong correlation between depression and academic performance of medical students, as depression causes crucial changes in academic performance of students and leads to its deterioration.

FREQUENCE OF PERSONAL AND REFLECTIVE ALARM CONDITION AFFECTED PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOUS AND PSEUDORHEUMATISM

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Introduction. Defeat of the mental sphere meets practically at all patients with general diseases of connecting fabric, in particular at the pseudorheumatism (PR) and the systemic lupus erythematosus (SLE), and sometimes it precedes the

picture of developed disease. Psycho-emotional disturbances which are expressed by various symptoms at the same time depending on weight, duration and the nature of a disease can be observed.

Aim. Studying of defeat of the mental sphere at patients with the pseudorheumatism and the system lupus erythematosus.

Material and methods. The research included 36 patients (20 patients with RA, middle age 38.5±1,4 years old and 16 patients from reliable hard currency, which average age makes 32.6±2,9 years old) receiving hospital treatment in department of rheumatology and cardiorheumatology of the 1st clinic of the Tashkent medical academy. On immunological accessory of PR 11 patients (55%) and seronegative 9 patients (45%) were seropositive, the 2nd degree of activity of process is diagnosed for all patients with RA. Among patients with hard currency 1st degree of activity is made by 9 patients (56.25%); The 2nd degree of activity - 7 patients (43.75%). On prescription of a disease patients with PR were distributed as follows: till 1 year - 6 patients (30%), from 1 to 5 flyings - 8 (40%), is more than 5 years - 6 patients (30%). Among patients with hard currency patients with prescription of a disease more than 5 years (83.33%) prevailed. For a research was chosen the alarm assessment of scale according to Ch.D. Spilberger-Yu.D. Khanin which consists of 40 questions and currently it is a reliable and informative way of assessment of level of uneasiness (reflective alarm condition (RA) as a state) and personal alarm condition (PA)(as steady characteristic of the person). Questionnaires were processed according to the instruction by means of the computer program of the statistical analysis Statistical Analysis Software.

Results. As a result of a research it was revealed that at patients with PR the expressiveness of RA and PA is directly proportional duration of a course of this disease, i.e. than the disease is more long, especially uneasiness is expressed. So at patients with prescription a disease more than 5 years high rates of uneasiness were noted. It was established that at patients with seronegative PR in comparison with seropositive both PA, and RA prevails by 1.2 times though many of them did not notice signs of the increased uneasiness. At patients with hard currency higher PA and RA were noted at the 2nd degree of activity of the disease. At uneasiness level assessment at PR and SLE higher figures of indicators are established at SLE.

Conclusions. Based on results of a research, it is possible to assume that psychological changes at patients with PR and SLE not only aggravate the course of a disease, but also, reducing efficiency of medicines, extend a stage of activity of the disease. Therefore consultation of the psychotherapist and purpose of the corresponding medicines is necessary for such patients for elimination of psycho-emotional frustration.

THE DIMENSION OF THE BIOLOGICAL WIDTH WITH 3D VISUALIZATION AND PERIODONTAL PROBE

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Relevance: Biological width is a complex of gum tissues that are located above the alveolar bone around the tooth. First of all, for the correct location of the edge of the crown or veneer. So if you place the edge of the crown within the biological width, there may be some problems. With a thin biotype, there is a recession of the gums, and atrophy of the alveolar bone, along with this, the normal biological width is restored. With a thick biotype, there is a constant inflammation of the marginal gum with the preservation of the original level of bone tissue. When is that possible? This occurs when too deep subgingival dissection, as a result of which the edge of the crown constantly injures the underlying soft tissues.

Purpose: To determine the biological width to calculate the height of the ledge in the preparation for the crown.

Materials and methods: In this study, three-dimensional imaging (3D) methods were used, where the distance from the edge of the gum to the alveolar ridge was measured . To calculate the biological width, from the above result from which the length of the gingival pocket was calculated, which was obtained using a periodontal probe.

Results: thus, the average size of the biological width consists of the following data: connective tissue attachment 1.07 mm + epithelial attachment 0.97 mm in total give 2.04 mm. and the size of the dentogingival groove = 0.69 mm.

Other researchers have also studied the problem. So in 1994, Vacek et al. found that the average size of the biological width is 2 mm, which corresponded to studies Gargiulo A. However, they were able to find out that the biological width has different sizes and some people can be narrow – up to 0.75 mm, or wide – up to 4.3 mm. And its size varies even in one person, so in the area of molars it is about 0.33 mm wider than in the area of the front teeth.

During the study, it was found that:

First patient connective tissue attachment = 1.05 mm; epithelial attachment = 0.99 mm; dentogingival groove = 0.5 mm.

The second connective tissue attachment = 1.08 mm; epithelial attachment = 0.96 mm; dentogingival groove = 0.7 mm.

The third connective tissue attachment = 1.06 mm; epithelial attachment = 0.98 mm; dentogingival groove = 0.65 mm.

The fourth connective tissue attachment = 1.04 mm; epithelial attachment = 1.0 mm; dentogingival groove = 0.8 mm.

Conclusion: the lower edge of the crown should be at least 2.5 mm from the alveolar ridge (1 mm connective tissue attachment, 1 mm attached epithelium and 0.5 mm groove). Subject to rules 2.5 mm restavracia will be more effective and less atrophy.

THE STUDY OF GASTROPROTECTIVE ACTION OF THE FLAVONOID RUTIN ON THE MODEL OF STRESS-INDUCED GASTRIC ULCERS.

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Relevance of the study: Modern gastroprotectia have a number of side effects and do not always show clear clinical effects. Based on this, it is urgent to search for effective gastroprotection. There are data on gastroprotective, antioxidant, capillaroprotective, anti-inflammatory and antihistamine activity of flavonoids and their glycosides (RF patent 2014841, 1994). In this connection, it is interesting to explore the domestic glycoside of the flavonoid quercetin – Rutosidum or rutin extracted from the buds of the Japanese savory (Saphora japonica) in Medical PI Ministry of health of Uzbekistan on antioxidant and gastroprotective activity.

Materials and methods of research: We have created an experimental model of immobilization stress in male rats with a body weight of 155-180 g, by immobilization of animals' special back-down planks for 24 hours. Before modeling of ulcers, we had injected intragastric rutin at a dose of 150 mg/kg to experimental group rats within 9 days and 2 hours up to reproduction of model pathology. In control, we injected water into animals. After immobilization, animals died as the result of decapitation, we took blood aliquots to determine the amount of MDA (Konyukhova V.S., 1989) and catalase activity (Korolyuk M.A., 1988).

Results: As a result of the experiment, it was found that in rats exposed to immobilization stress for 24 hours, there was severe damage to the gastric mucosa manifested in the formation of small-point, round and oval defects. The total surface of the lesion is more than 10% of the stomach surface. At the same time, the presence of small-point and oval forms of damage was most often noted. In contrast, animals which received rutin had a significant reduction in the area of damage to the gastric mucosa. It is noteworthy that the last was manifested by a sharp decrease in both the degree and area of ulceration. In addition, it was found that quercetin glycoside – rutin activates the enzyme catalase and significantly reduces the amount of malonic dialdehyde in the experimental groups of experimental animals, which allows to neutralize the negative factors of immobilization stress.

Conclusion: To sum up, the rutosidum or rutin isolated from the buds of the Japanese safora (Saphora japonica) in Medical PI Ministry of health of Uzbekistan, which manifested itself in our experiments as a good gastroprotector and activator of the protective properties of the body in stressful situations, deserves special attention and in-depth research in order to further promote it as a multifunctional drug.

EARLY LABORATORY MARKERS OF JUVENILE RHEUMATOID ARTHRITIS

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Introduction: Juvenile rheumatoid arthritis (JRA) is a complex autoimmune disease of the connective tissue with a primary lesion of the small joints, the etiology of which at this stage of the study of the ailment remains unexplained [1]. Early diagnosis of JRA is “the number one goal” in the fight against this disease, since JRA, with an untimely start of therapy, can further lead to various undesirable complications, such as a noticeable decrease in the working ability of patients, up to a loss of self-care abilities and a shift in psycho-emotional state side of its deterioration. [2] Although the disease itself according to the results of a study by Drozhina E.N. and others, the disease (JRA) was perceived by children as an “obstacle”, an obstacle, a limitation in 9% of cases [3] and later played the role of a “platform” for the manifestation of anxiety disorders.

Aim: Find out the diagnostic value of juvenile rheumatoid arthritis markers

Methods: Review and analysis of scientific literature and case histories with a diagnosis of "Juvenile rheumatoid arthritis"

Results: To develop the most accurate protocol for early diagnosis of JRA, it is necessary to know the exact course of pathogenesis and etiology of the disease, but unfortunately, the etiology of JRA remains unclear to this day, although the most significant pathogenetic indicators may provide an opportunity to catch the disease. during and start the appropriate therapy.

Currently, a single etiological factor is not scientifically established, but it is believed that JRA is a polyetiological disease [4], and based on pathogenesis there is a hereditary imbalance in the cellular and humoral immune response [5], which results in the formation of antibodies that combine with antigens , cause immune inflammation. If the surface of the joint is damaged, immune cells begin to secrete cytokines, resulting in chronic inflammation [6]. In pathochemistry, a certain role is occupied by “oxidative stress, autoimmune reactions, an imbalance between pro- and anti-inflammatory cytokines, hypoxia, and factors affecting these processes” [7]. Modern rheumatology, based on the above changes,

develops new reliable diagnostic methods. In an organism in rheumatoid arthritis at some point, peptides are citrullinized (arginine in the peptide molecule is converted to citrulline), to which autoantibodies are produced [8]. One of the most striking early manifestations today is the definition in blood and synovial fluid, synthesized autoantibodies to citrullinated peptides (ACCP), the level of which correlates with the degree of disease activity [9]. This test can be classified as highly specific, since ACCP can be detected before the manifestations of the first visible and palpable patient's clinical symptoms of JRA.

In response to immune inflammation, macroglobulin is produced - rheumatoid factor (RF), which to a certain extent has diagnostic value in rheumatoid arthritis, but in the case of JRA, only 15–20% of patients are detected [10].

CORRECTION OF THE GASTROTOXIC EFFECT OF NON-STEROIDAL ANTI-INFLAMMATORY DRUGS WITH KVERTSETIN

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Non-steroidal anti-inflammatory drugs (NSAIDs) have become an integral part of modern life. This trend has become particularly noticeable in connection with the increase in the number of people experiencing chronic pain in various diseases. The pathology of the gastrointestinal tract (GIT) arising from the use of NSAIDs, in fact, went beyond the complications of a particular type of drug therapy. Therefore, the development of methods of protection against the negative effects of NSAIDs is an urgent task of clinical pharmacology and pharmacotherapy.

The purpose and objectives. The use of quercetin to correct the negative effects of nonsteroidal anti-inflammatory drugs that occur with long-term treatment of pain.

Quercetin - flavonoid with P-vitamin activity - is known as a substance with capillary stabilizing, antioxidant, membrane stabilizing, anti-edematous, anti-inflammatory and gastro protective action. In addition, as a result of blockade of the arachidonic acid metabolism pathway, quercetin reduces the synthesis of leukotrienes, which are mediators of inflammation. Thus, the use of quercetin preparations prevents erosive-ulcerative lesions of the upper sections of the alimentary canal, which serves as a direct indication for its inclusion in the complex therapy of gastric ulcer and duodenal ulcer, gastritis and enterocolitis. This also contributes to the regenerative properties of quercetin, which are manifested in the accelerated healing of superficial wounds and / or erosion, regardless of their location and mechanism of origin.

Materials and methods. The research was conducted in the Bukhara Regional Multidisciplinary Clinical Hospital in the Department of Rheumatology. For this purpose, 37 patients with various rheumatologically diseases aged 18 to 50 years were selected who were prescribed NSAIDs, and these patients were divided into 2 groups: took only NSAIDs, and the second group of patients consisting of 19 patients took NSAIDs in combination with quercetin 80 mg 3 times a day for 10 days (followed by continuation up to 5-6 weeks)

Results. During the examination, patients with the first group taking only NSAIDs had side effects from the gastrointestinal tract 2 times more than patients of the second group and the effectiveness of NSAIDs was 1.5 times more than the first group.

Conclusion. Our clinical research proves that quercetin can reduce the negative effect of nonsteroidal anti-inflammatory drugs on the digestive system. An additional advantage of this appointment is that when a combination of quercetin preparations with NSAIDs, the anti-inflammatory effect of the last amplified.

PROSPECTIVE OBSERVATION OF FIRST-PREGNANCY WITH HYPERTENSION OF PREGNANCY

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The aim of the study was a prospective controlled 5-year observation of first-line pregnant women with hypertension pregnancy.

Materials and methods. Prospectively, a group of 49 pregnant women with pregnancy hypertension and a age-matched control group of 49 primordial women with normal BP were prospectively examined. The 1 st group included only those women whose hypertension was first detected during pregnancy. The group did not include women with hypertension, which was available only during labor or in the postpartum period.

Results of the survey. Observation with the definition of blood pressure continued regularly for 5-6 years. At the end of the follow-up period, 21 of 49 women in group 1 had hypertension requiring treatment (7 women), or borderline hypertension (14 women). Borderline hypertension developed in only 2 women in the control group. The most significant factor predicting the subsequent high blood pressure after 5-6 years was the gestational age at which hypertension was first detected.

Conclusions. Thus, the prognostic factors were the magnitude of the first measurement of diastolic pressure over the observation period, family history of hypertension, smoking and the age of women.

MAIN FACTORS CAUSING IRON-DEFICIENT ANEMIA IN CHILDREN OF EARLY AGES

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Introduction. Iron deficiency anemia (IDA) is one of the most common diseases on the planet, and the defeat of many organs and systems associated with it, determines the relevance and importance of studying this problem. According to the World Health Organization, IDA is found in 1.8 billion people on our planet, and every third inhabitant of the Earth has an iron deficiency (IJ) of varying degrees of severity, which is 3.6 billion people, i.e. 30% of the population.

Aim. Analysis of main causing factors for development of IDA(iron-deficient anemia) in children of early ages.

Methods. We carried out analysis of 205 medical cases that were detected in 2015 year. All children were having treatment in department of somatics and pathology of newborns in MC "Istiqlol" according to main and intercurrent diseases. Average age of children is 8 months(from 2 months to 1 year). Diagnosis of IDA was verified on basis of clinical-laboratory analysis.

Results and discussion. Analysis of cases showed that majority of children(68%) live in countryside. Main complaints at the moment of arrival to hospital were: decrease, selectivity and perversion of appetite (98%), paleness of skin and mucous membranes (100%), weakness, lethargy, caprice of children. According to objective examination, attracts attention paleness of skin and mucous membranes, periorbital and periocular cyanosis which are strengthened during physical and emotional exertion. From cardio-vascular are mentioned following signs- tachycardia, muted tones, systolic murmur on apex of heart in Botkin's point. Analysis of data showed, that only two mothers' pregnancy and delivery were physiological, 45 of 50 women(90%) during pregnancy suffered by IDA of various degree, and only 5 mothers had complete treatment of the disease. 16 (32%) women's pregnancy was complicated by late toxicosis, and 15 (30%) had threaten of abortion on different stages. Premature deliveries were mentioned in 21 women. In most of cases there were significant defects of feeding: 18 children (36%)got breast milk till 1-2 months, 9 children (18%) till 3-4 months and more than 4 months, and 11 children (23%) correspondingly were on breast feeding. Artificial feeding from birth was faced in 11 children(23%). Analysis of cases in 32 patients (64%) showed untimely and inadequate consumption of supplementary food.

Conclusions. As a result , in children of early ages the main cause of sideropenia is insufficient income of iron from mother to fetus during intrauterine period because of hemosiderosis of women, gestosis in second half of pregnancy , feto-placentary failure , prematurity.

POSSIBLE LINK OF HYPERURICEMIA WITH HYPERTENSION IN CHILDREN

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Annotation: This report consider importance of uric acid indication in blood stream in children or adolescent as a reason to develop hypertension in future. And possible link between hyperurecemia in children with adult hypertension.
Keywords: hyperuricemia, hypertention, children, adolescent, blood pressure.
Introduction: Uric acid is the natural end product produced by the breakdown of the body's tissues and a person's food, most notably protein. Uric acid is usually removed from the blood by the kidneys and eliminated from the body in the urine. However, if too much uric acid is produced or the kidneys are not able to remove it from the blood as usual, uric acid levels in the blood increase (termed hyperuricemia). Epidemiological and experimental studies suggest a link between hyperuricemia and hypertension. Hyperuricemia affects 25% to 40% of individuals with untreated hypertension; a much lower prevalence has been reported in normotensives or in the general population. [1]
Aim: to determine a possible link between hyperuricemia and hypertension in children; and use hyperuricemia as indicator to predict hypertention in children.
Matherials and methods: We searched two major electronic databases — Cochrane Library (last 5 years) and Pubmed (last 10 years) resources— using the following heading terms and keywords: [uric acid OR hyperuricemia OR hypertention].
According to Cochrane library resource there is an identified three completed Randomized Control Trials (RCTs) including 211 participants and three ongoing trials. Two of the trials were parallel-group trials and one study was a crossover trial which aimed to assess whether UA-lowering agents reduce BP in patients with primary hypertension or prehypertension compared with placebo.
In resources from Pubmed about normotensive participants with and without hyperuricemia at baseline were prospectively enrolled. Flow-mediated dilation (FMD) was assessed at baseline, and after 1 year's follow-up the incidence of

hypertension. The predictive value of baseline FMD for incident hypertension among hyperuricemia patients was evaluated. [2]

Results and discussions: The RCTs data currently available are insufficient to demonstrate whether UA lowering therapy is effective in lowering BP. UA-lowering therapy might be more effective at reducing BP in the specific population of adolescents with prehypertension or mild newly diagnosed hypertension. Withdrawals due to adverse effects were not higher with UA-lowering therapy than with placebo.

By second review, current study indicates that patients with hyperuricemia have a higher risk of developing hypertension compared to those with a normal serum UA level. Epidemiological studies show a continuous relationship of serum uric acid with BP that is stronger for younger subjects than older subjects. Thus, it appears that maintaining a lower uric acid would be more effective at prevention rather than lowering uric acid in the treatment of hypertension because once intrarenal vascular disease develops, hypertension is then driven by renal disease. [3]

Conclusion: In a process of studying this topic we found that there is a possible mechanism of connection of increasing uric acid in children which cause of increased adult BP. Moreover, uric acid and change in uric acid are significant independent predictors of adult BP. Lack of trials on possible connection between hyperuricemia and hypertention shows us that it needs more researches. Besides this, we assume that there is an opportunity to predict potential adult BP in childhood by revealing uric acid in blood stream.

THE RESULTS OF SURGICAL TREATMENT OF NEPHROPTOSIS

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Introduction. Nephroptosis is the most common disease in urology, which is the frequency of occurrence ranging from 2% to 8% yielding to ICD, prostatitis and prostate adenomas. It is more common in women of working age, which dramatically reduces the quality of life.

Aim. To analyze the etiopathogenetic aspects of nephroptosis,to develop criteria for the severity of the disease and to give a comparative description of the methods of surgical treatment of nephroptosis.

Methods. The study group included 127 patients diagnosed with nephroptosis, aged 20 to 56 years. Of these, there were 16 males and 111 females. The basis for surgery were: the presence of pain symptoms in the projection of the kidney in orthostasis, increasing with exercise, the presence of chronic pyelonephritis, increased blood pressure, urolithiasis. Indicators of secretory and

excretory renal function were determined by isotope radiography, ultrasound dopplerography, uroflowmetry, ultrasound . From 127 subjects 112 were subjected to surgery, which were devited into 2 groups according to the surgical methods. The method of open nephropexy according to the method of M.U. Gafurova and I.N. Nusratulloeva was used in the first group (n=74) and supracapsular nephropexy by the method S.P. Fedorov was used in the second group (n=38)

Results and discussion. Patients were divided into three groups according to severity. There were 7 patients diagnosed with minor severity of nephroptosis, 31 patients with moderate severity, 74 patients with sever severity, which constitute 6.25%, 27.7 %, 66.2 %. Postoperative results were evaluated by the number of hospital beds, reduction of pain symptoms, normalization of blood pressure, excretory secretory kidney function, improvement of renal blood circulation and quality of life, absence of postoperative hernias. The best results were observed among patients included in the first group that was operated by the method of M. U. Gafurov, I. N. Nusratullah.

Conclusions. Method of nephropexy developed by M.U. Gafurov and I.N. Nusratulloev significantly reduces the traumatism of the operation, general period of hospitalization, the number of recidivation and complications (postoperative hernias), and also the need of medicamental therapy.

HARDWARE METHODS OF TREATMENT OF ANOMALIES REFRACTION AND STRABISMUS.

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Introduction. Visual disorders in preschool children, not cured or not cured before 7 years, further lead to a restriction in the choice of professions, especially those associated with accurate long-term work. Therefore, in the early stages of the visual analyzer formation, it is important to understand the common tasks of restoring impaired eye functions in the early stages.

Aim. To Evaluate the effectiveness of the method of hardware treatment of strabismus, hyperopia and amblyopia in children.

Methods. In 2016, 220 patients aged 3 to 7 years with friendly strabismus, amblyopia and farsightedness were examined and treated in the Regional eye clinic of Khorog. It was research visual function: the visual acuity without correction and with correction, the nature of vision and the squint angle, biomicroscopy,ophthalmoscopy, skiascopy with a wide pupil after a three-day atropinization.

Hardware treatment was carried out using the apparatus maculostimulant MCS-C; like basic colors (red, green, blue) and their combinations. The action is based on the perception of color associated with the function of the retinal cone cells. The duration of the session with this device is 7 minutes. 2 sessions were held daily.Laser stimulation with Speckle-m Apparatus. Laser stimulation is an effective method of treating retinal stimulation in amblyopia and refractive errors. The course of treatment with the Speckle-M device consists of 10 sessions. The healing sources work from 6 to 9 minutes. The duration of treatment until the stabilization of visual functions. The frequency of the first three courses is 3-4 months. The device uses photostimulation based on chromatic the critical frequency of merge of flashings . The stimulation activates the metabolism in the retina, improves blood flow in the Central macular region, relieves vascular spasm.

Results and discussion. The study included 220 patients, of whom 75 patients with strabismus, hyperopic 60 with spasm of accommodation 45, refractive amblyopia 40 children's. After receiving the treatment 80% of children reported improvement of vision, reduction of strabismus angle and disappeared astenopic complaints.

Conclusions. Complex treatment of patients on maculostimulant MCS-C and laser apparatuses-M allows to significantly improve the functional performance of the organ of vision.

PRINCIPLES OF DIAGNOSIS AND TREATMENT OF CICATRICIAL STRICTURES OF EXTRAHEPATIC BILE DUCTS

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Introduction. The number of patients with cicatricial strictures of the bile ducts does not tend to decrease taking one of the leading places among postoperative complications on the biliary tract and liver. The increase in the number of cicatricial strictures of the bile ducts , most of which are up to 90-95% of traumatic origin, and 4-7% of the inflammatory process indicates the relevance of the affected problem . Postoperative mortality in the treatment of cicatricial strictures of the bile ducts reaches 12-30%, and the recurrence rate of strictures – 30%.

Aim. Improving the results of surgical treatment of cicatricial strictures of extrahepatic bile ducts.

Methods. During the period from 2000 to 2015 at the Department of surgical diseases №1 of TGMU on the basis of the City Clinical Hospital of

Emergency Medical Care were examined and treated 74 patients with cicatricial strictures of the bile ducts. The age of patients ranged from 18 to 74 years. Among them, there were 24(32.5%) men and 50(67.5%) women. Patients were the distribution according to the classification Bistmuth – Corlete I-type 8(11%) II-type 12(16%) IIIa-type 21(28%) IIIB-type 13(17,5%) IV -type 20(27%).Symptomatic distribution of patients with cicatricial strictures of the bile ducts: jaundice (n=22, 30%),cholangitis (n=18, 24%),abdominal pain and discomfort (n=15, 20%),All three symptoms (n=19 , 26%).Additional methods carried out ultrasound, ERCHPG, PTCH, EPST, CT and MRI.

Results. The presence of strictures in the bile ducts, regardless of whether its cause is established or not, is an alarming symptom. Differential diagnosis of strictures is a difficult task not only for the Clinician, but also for specialists of visualization methods of diagnosis, due to the peculiarities of the spread of cholangiocarcinoma in the bile ducts. Results treatment bolnyh cicatricial strictures of the bile ducts: hepaticojejunostomies for RU 32 (43.2%), hepaticojejunostomies by Brown 15 (20.2%) , a right hemihepatectomy 5 (6.7%), EPST 22(29,9%).

Conclusions. Highly informative methods of diagnosis of the level and extent cicatricial strictures of the bile ducts is ERCHPG, PTCH and magnetic resonance cholangiopancreatography. When choosing surgical treatment methods cicatricial strictures of the bile ducts you must consider the type of scar stricture of the bile ducts, the nature of the complications, functional status of the liver, and the presence of complications cholangitis, obstructive jaundice and biliary sepsis is advisable at the first stage, minimally invasive decompressive procedures. At the second stage, the formation of frameless biliodigestive anastomosis on RU using precision technology and modern resorption suture materials.

THE USE OF THE SKIN-FASCIAL RADIAL FLAP IN THE CORRECTION OF CONTRACTIONS OF THE HANDS THUMB

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Introduction. The hand is an extremely important tool in a person's life and the dysfunction of it leads to disability. According to WHO, every year more than 50 million patients receive various degrees of injuries and burns of the extremities. Damage to the hand occurs from 35 to 84.3% of cases and the resulting defects require the use of the complex types of reconstructions. The

frequency of complications with hand injuries is 20-52.4%, and disability develops from 35-55%.

Aim. Improving the results in the use of the skin-fascial radial flap with various deformations of the thumb.

Methods. For the period from 2016 to 2019 years in the Department of Reconstructive and Plastic Microsurgery of the Republican Scientific Center for Cardiovascular Surgery were admitted (4) victims with flexion 3 (75%) and extension 1 (25%) contractures of the thumb, who were undergone surgery with reversed skin-fascial radial flaps. In all victims, contractures were severe and were accompanied by the presence of a soft-tissue defect with loss of finger function. In one observation, there was a severe flexion contracture of the 1-finger in a child due to a burn obtained with boiled water. Additional research methods include radiography of the upper limb and Doppler-US.

Results and discussion. In order to prevent possible complications, patients underwent an Allen test and performed a Doppler-US of the forearm vessels. Contraindications to the use of skin-fascial radial flaps were not identified. After elimination of the contracture under an optical zooming, a skin-fascial radiation flap was cut out, depending on the resulting defect of the epithelial tissue on the retrograde leg. After moving to the area of the defect, the donor wound was sutured without special tension.

The method allows simultaneous elimination of deformation and contracture of the finger.

In early postoperative period, there was a clinic of the venous outflow disruption, which was eliminated by conservative measures. All the flaps settled down. In the remote period, the functional and aesthetic condition of the fingers was assessed as satisfactory.

Conclusions. Thus, the use of a skin-fascial radial flap on retrograde skin in case of contracture of the thumb and the presence of a concomitant soft defect, according to indications, does not have a better alternative.

SURGICAL TREATMENT OF BRONCHOECTATIC DISEASE.

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Introduction. Last years were mentioned significant decrease of patients with bronchoectatic diseases. But none has doubt about effectiveness of surgical way of treatment of the disease in patients till 40 years. According data A.A. Voronova and co-authors favourable results are noted in 95 % of patients , and

33 % has complete recovery. However diagnosis and treatment of patients of elderly ages with the disease are not completely described in literature. Increase of lifespan and improving of diagnostic possibilities lead to grow up of number of localized forms of brochoectasis.

Aim. Improve the results of surgical way of treatment and life-quality of patients with bronchiectasis.

Methods. The research is based on investigation of 77 patients, which arrived to National center of tuberculosis , pulmonology and thoracic surgery with diagnosis; bronchiectatic disease of local form, in the period 2014-2019. There were 50(64,9%) men, 27 (35,1%) women among patients. The age ranged from 21 to 55 years (average 38). Presence of bronchiectasis is confirmed by morphological investigation of removed part of lungs.

Results and discussion. We carried out lobectomy of 65 (84,4%) patients with unilateral damage of lungs, which included damage of left lung – 37 patients, and right lung 28 patients. 12 patients had bilateral bronchiectasis, but the process didn't involve more than 1 lobe from each side, and was conducted stage-by-stage lobectomy, segmentectomy. In 58 patients presence of bronchiectasis was accompanied by decrease in volume of affected regions of lung. In most of cases during investigation for a long period of time is noted recovery of patients, in which purulent chronic disease is not observed.

Conclusions. As a result, we need to note, that the shorter is duration of disease and absence of apparent inflammation in bronchial tree , the better is prognosis of surgical treatment. Especially the better result is observed in patients with hemoptysis because before surgery they didn't have any significant chronic purulent processes in the lungs. We should mention that all patients with local form of bronchiectasis is treated by surgical method.

RELATIONSHIP OF INTERNET ADDICTION WITH DEPRESSION

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Introduction: XXI century - the age of information technology. According to www.internetworldstats.com as of December 31, 2018, the number of Internet users is 54.4% of the world's population. Given the impact of the Internet on the psyche of users, today we are seeing a new kind of addiction - Internet addiction.

Aim: Analysis of these materials, as well as conducting a social survey, to assess the relationship of Internet addiction and depression.

Methods: Survey of 112 respondents aged 15 to 21 years using the Google Forms service, as well as literature data analysis

Results: 112 people took part in the survey. It was found that 49.6% use the Internet for web surfing, 32.6% for communication, 17.8% for watching movies. Interviewees often disturb sleep due to excessive network presence. It has been found that sleep disturbance leads to various stress conditions, up to and including depression. To the question "What is your concern in the absence of the Internet?" Most of the respondents left answers: "discomfort", "irritation", "nervousness". The survey also showed that 23.2% feel some kind of "pleasure" when they receive a new notification. At the molecular level, it has been proved that the habit of users to frequently check their smartphones leads to the fact that a person goes into a certain state of "waiting" for new information [1]. R. Lustig explains this by the need to constantly switch from a waiting state. New information increases the level of dopamine, as a result of which the body becomes accustomed to an excess of dopamine, which increases the risk of developing depression [2].

Conclusions: A study showed that Internet addiction may well be a factor in the development of depression. To prevent this, you need to develop clear rules for interacting with the global network. Taking into account the harm of the Internet, do not forget that the Internet is an integral part of the development of society and a powerful source of information.

ULTRASOUND DIAGNOSTICS OF PORTAL HYPERTENSION IN CHRONIC VIRAL HEPATITIS IN PEDIATRIC SURGERY

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Introduction: Cirrhosis of the liver, which has emerged as a complication of chronic viral hepatitis, is the cause of portal hypertension syndrome, which requires timely diagnosis to initiate therapeutic measures aimed at correcting this condition in order to avoid urgent conditions such as bleeding from varicose veins and so on.

The aim of the study was to analyze the data of ultrasound diagnostics of patients with chronic viral hepatitis to determine early changes in the portal system for the detection of portal hypertension syndrome.

Methods: sonograms of patients with chronic viral hepatitis, as well as the analysis of literature data

Results of the study In an ultrasound study of patients with moderate-intensity hepatitis, the portal vein diameter varied from 5 mm to 8 mm in 44±4.59% of patients, from 9mm to 12mm in 39±4.51%, and more than 12mm was determined in 17±3 , 47% of patients. Increasing the diameter of the portal

vein more than 9 mm, we attributed to the indirect signs of the syndrome of portal hypertension. When the ultrasound of the vessels of the liver, signs of portal hypertension were accompanied by a violation of the state of the walls in the form of compaction, thickening, tortuosity, with areas of deformation of the cavity of the vessel. Changes in the resistance and blood flow velocity of the blood vessels in Doppler sonography in children with CVH showed an increase in vascular tone, the possibility of vascular spasm, as a result of damage to the walls of blood vessels, early or pronounced signs, prone to the syndrome of portal hypertension. The revealed disorders of the vascular bed allowed us to diagnose emerging portal hypertension at an earlier date.

Conclusions: Ultrasound signs: splenomegaly, dilatation of the portal system more than 9 mm and splenic artery more than 7 mm, decrease in linear blood flow rates (Vmax, Vmin, TAMH), increase in resistance index (RI), decrease in volumetric blood flow (Vvol) in all investigated arteries , tortuous course of intrahepatic vessels. The combination of three or more signs testified to the formation of portal hypertension.

PATHOPHYSIOLOGICAL ASPECTS OF CHANGES IN THE VASCULAR SYSTEM OF PERIODONT IN INFLAMMATION

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Introduction: periodontal disease is a chronic inflammatory process occurring in the the complex of tissues supporting the tooth named periodont. A gradual degradation of periodontal tissues in periodontal disease finally leads to the loss of a tooth. According to scientific data, periodontal disease is a particular kind of the systemic inflammatory process in the body, the causative factor of which is the dysfunction of vascular endotheliocytes.

Aim: to evaluate the pathophysiological features of vascular changes of periodont in periodontal disease

Methods: study of patient's case histories, collection of anamnestic data, visual examination of the oral cavity, assessment of marked changes in periodontal disease, doppler ultrasonography

Results: the study of case histories of 15 patients showed that the middle age of patients was 40 years. Psycho-emotional stress and insufficient chewing are noted. Doppler ultrasonography study showed hemodynamic changes in periodontal vessels, that indicates a decrease in the elastic properties of the vascular wall. Because of various inadequate effects on periodont, uncontrolled endothelium-dependent synthesis of NO occurs in local vessels. It leads to the vasodilation. Long-term expansion of blood vessels leads to the alteration of the vascular wall that is accompanied by increased synthesis of inflammatory mediators - cytokines, adhesins, IL-1, TNF-α, prostaglandins. During the visual

examination of oral cavity, such signs of the inflammation as swelling of the gums, hyperemia and bleeding are noted. The pathogenic influence of the microflora of plaque and subgingival zone is activated. Probably, mediators induce the synthesis of other mediators that leads to the weakening of local immunity. Bacteria (anaerobic bacilli and spirochetes) actively penetrate into the bloodstream and cause systemic uncomplicated bacteremia.

Conclusions: periodontal disease is characterized not only by the typical signs of inflammation but by specific ones too, such as the cyclic chain of synthesis of mediators, uncomplicated bacteremia and secondary infection with auto-flora. The starting stimulus for alteration is probably the uncontrolled synthesis of nitric oxide.

CLINICAL AND IMMUNOLOGICAL CHANGES IN ORAL CAVITY WITH HERPETIC STOMATITIS AFTER THE COMPLEX THERAPY WITH ACRIDON-ACETIC ACID AND N-METHYLGLUCAMINE

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Introduction: the clinical and pathogenetic efficiency of Cycloferon liniment containing acridone acetic acid — 50.0 mg and N-methylglucamine (meglumin) —38.5 mg in the complex therapy of herpetic stomatitis (HS) was studied.

Aim: to study and evaluate the effectiveness of liniment containing acridone acetic acid - 50.0 mg, N-methylglucamine (meglumin) - 38.5 mg in the complex therapy of viral stomatitis in the immediate and long-term period of treatment.

Methods: Cycloferon liniment was used to treat patients with herpetic stomatitis. We examined 40 patients with HS in age from 19 to 38 years old, who were divided into two groups. Liniment containing acridone acetic acid - 50.0 mg, N-methylglucamine (meglumine) - 38.5 mg in the form of applications of impregnated cotton turunds for 20 minutes was added to the complex treatment in 1st group (main group - 20 people), the therapy with liniment lasted 10 days (2 applications per day on the oral mucosa). In the 2nd group (control group - 20 people), therapy of herpetic stomatitis was carried out with the use of standard methods. In both groups, etiotropic treatment of HS was carried out using valacyclovir tablets – 500.0 mg (2 times a day).

Phagocytic index, the level of lysozyme and of secretory immunoglobulin A (sIgA) in saliva were determined to study the factors of local protection

Results: an objective examination of all patients in the main group showed that there was no pain during palpation, swelling of the mucous after the full

treatment (10 visits). Healing of aphths was noted at 18 people. All patients subjectively felt better, noted the disappearance of pain and an unpleasant smell from the oral cavity. During next 6 months, there were not relapses of the disease in the main group.

15 patients in the control group, by the 10th visit, subjectively felt better, noted the disappearance of an unpleasant smell from the oral cavity. 8 patients still had the pains in the mucous during food intake and tooth brushing. An objective examination showed the decrease of the pain of the mucous in 17 patients, the healing of aphths was noted in 15 patients. The absence of any signs of convalescence was noted in 1 patient. 4 patients had relapses of the disease.

Study of the indicators of factors of local protection of the oral mucosa showed that the most significant changes were in phagocytosis, which were almost twice low comparing to the norm. The level of lysozyme and sIgA were 1.5 time reduced comparing to the norm. These data indicate the development of secondary immunodeficiency in the oral mucosa in herpetic stomatitis.

Conclusions: the use of liniment containing acridone acetic acid - 50.0 mg, N-methylglucamine (meglumin) - 38.5 mg in complex treatment of HS reduces the severity of local inflammation, normalizes the parameters of local immunity that accelerates healing processes and provides the decrease of the frequency of relapse of stomatitis. Clinical results of the use of the liniment in the complex treatment of patients with viral stomatitis were significantly better than in control group.

ACUTE TOXICITY STUDY OF THE DRY EXTRACT OF THE SCUTELLARIA ISCANDARIA L.

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Introduction. Scutellaria iscanderi L.- A perennial herb, belongs to the family of Labiaceae (Lamiaceae). Genus ScutellariaL. includes 360 species of world flora, of which 148 species grow in the CIS. The chemical composition of plants of the genus ScutellariaL. diverse and represented by phenolic acids, iridoids, di- and triterpene compounds, cardenolides, coumarins, tannins and flavonoids.

The aim of the research. Conducting pharmacological studies and study acute toxicity of dry extract of the Scutellaria Iscandaria on white mice and white rats.

Materials and methods. The acute toxicity of dry extract of Scutellaria Iscandaria was studied by a common method described in the literature by single administration of drugs with the definition of the toxicity class. Type and number of animals: for the experiment used white mongrel mice of males in the amount

of 18 animals, weighing 19-21 g, kept in quarantine for 14 days. Conducting the experiment: a 25% aqueous suspension of 500 mg + 2 ml of H2O was prepared from the dry extract. White mice were divided into 3 groups. The mice of each group were intragastrically administered once with a 25% aqueous suspension of dry extract of as follows:

Group 1 (6 mice) - intragastrically at a dose of 5000 mg / kg (0.4 ml);
Group 2 (6 mice) - intragastrically at a dose of 7500 mg / kg (0.6 ml);
Group 3 (6 mice) - intragastrically at a dose of 10,000 mg / kg (0.8 ml);

Observation: On the first day of the experiment, animals were observed hourly in the laboratory, while appearance indicators were recorded (condition of hair, mucous membranes, etc.); functional status (survival during the experiment, general condition, possible convulsions and death) and behavior.

Results: when studying the acute toxicity of dry extract of Scutellaria Iscandaria, the following data were obtained:

Group 1 (dose of 5000 mg / kg): after administration of the drug, the mice remained active during the day, no changes in the behavior and functional state were observed.

Group 2 (dose of 7500 mg / kg): after the injection of the drug during the day, the mice were active, there were no visible changes in the behavior and functional state. The condition of the coat and skin was normal without changes, food and water were not rejected, no death of the mice was observed. Group 3 (dose of 10,000 mg / kg) after administration in mice was observed short-term lethargy and inactivity, which took place after 30-40 minutes. After 1 hour, the mice returned to their former state, the behavior was active, the physical indicators did not deviate from the norm.

Conclusion: According to the classification of toxicity of substances, dry extract of Scutellaria Iscandaria, belongs to the V class of toxicity, which is practically non-toxic.

EVALUATION OF SEDATIVE ACTIVITY OF OF THE DRY EXTRACT OF THE SCUTELLARIA ISCANDARIA L.

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Introduction. Scutellaria iscanderi L. - A perennial herb, belongs to the family of Labiaceae (Lamiaceae). Genus Scutellaria L. includes 360 species of world flora, of which 148 species grow in the CIS. The chemical composition of plants of the genus ScutellariaL. diverse and represented by phenolic acids,

iridoids, di- and triterpene compounds, cardenolides, coumarins, tannins and flavonoids.

The aim of the research. Conducting pharmacological studies and study sedative effect of dry extract of the Scutellaria Iscandaria on white mice and white rats.

Material and Methods: the sedative effect of the dry extract of Scutellaria Iscandaria was studied on 12 white mice weighing 20-23 g. Animals were divided into 2 groups. A 10% aqueous solution was prepared from the dry extract of Scutellaria Iscandaria. The control group of animals was injected with distilled water. The drugs are introduced as follows:

Group 1 - distilled water;

Group 2 - dry extract of;

After 15-20 minutes the animals were placed in the chamber for the registration of physical activity. Motor activity was recorded for 30 minutes (approximate reflex).

Results: when studying the effect of Scutellaria Iscandaria's dry extract on musculoskeletal activity, it was found that a single intragastric administration of 500kg / kg of Scutellaria Iscandaria's dry extract at a dose of 500 mg / kg in mice showed lethargy and immobility, a decrease in the number of oriental reflexes compared to the control.

The data obtained when registering the activity of mice treated with dry extract of Scutellaria Iscandaria at a dose of 500 mg / kg showed that it suppresses orienting reflexes that can be seen in the table.

№	Drug, dose mg / kg	Optical density at a wavelength of 540 nm, M ± m (P)
1	Control, dis. water	0,26 ± 0,03
2	the dry extract of Scutellaria Iscandaria, 500 mg/kg	0,1 ± 0,02 (P < 0,05)

Conclusion: thus, the obtained data show that the studied dry extract of Scutellaria Iscandaria, has a pronounced sedative effect.

INFLUENCE OF REFLUX DISEASE ON THE CONDITION OF THE ORAL CAVITY.

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Introduction: the sharp disturbances in the immune system, observed in patients with somatic pathology, are caused by a decrease in the concentration of IgA, IgA in the oral fluid. The microbiocenosis of the oral cavity against the background of reflux disease is characterized by an increase in the frequency of

inoculation of fungi - Candida spp. and a decrease in the number of representatives of the microflora - streptococci.

The pathogenesis of most systemic diseases includes the stage of development of the reaction by the type of inflammation. Experiments and clinical observations have shown that the development of the inflammatory response provides the conditions for the normal functioning of the body. It has been established that inflammation induces the release by cells of biologically active substances that protect the host organism against infection and affected tissues.

Inflammatory periodontal periodontal diseases lead to the destruction of the connective tissue of the gums, periodontal ligament and alveolar bone.

It has been established that the main factor provoking inflammation in periodontal tissues is bacterial plaque deposited on the surface of the teeth. The waste products of microorganisms are able to initiate a chain of reactions on the part of a macroorganism, the result of which is the destruction and destruction of tissues. Severe forms of pathological processes in periodontal tissues of inflammatory and destructive nature develop under the influence of both local causes and general organismal factors - various somatic pathologies (diseases of the cardiovascular and endocrine systems, pathologies of the gastrointestinal tract organs), which is caused by a significant deterioration of the functional state of various organs and systems of the body, reducing the quality of life of patients due to the presence of typical symptoms and atypical dental manifestations primary and background diseases .

Aim: to determine the pathophysiological dynamics of changes in the clinical state, immunological reactivity and microbiocenosis of oral organs and tissues in the background of reflux disease.

Methods: the age of the subjects ranged from 29 to 45 years. Group I control (15) - patients with mild and moderate periodontitis; Group II (15) - patients with gingivitis who have no pathology of the gastrointestinal tract; Group 3 (15) included patients with reflux disease. The effect of somatic pathology on the state of the oral cavity was assessed according to the results of laboratory studies.

Results: the dynamics of changes in the microbiocenosis in patients with severe reflux disease and periodontitis indicates an increase in the number of microorganisms with pathogenicity and proteolytic activity, which significantly increases the risk and favors the emergence and development of inflammatory and destructive processes in periodontal tissues.

Discussion: in individuals with reflux disease, a decrease in the level of dental health is defined, which is characterized by a pronounced increase and a significantly higher incidence of inflammatory destructive periodontal diseases, the main causes of which are the negative negative changes in the microbiocenosis, immunological reactivity and deterioration of the oral hygiene.

CYCLOOXIGENASE INHIBITORS AS A FACTOR OF CRYPTORCHIDISM

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Actuality: Cryptorchidism is one of the most common malformations of the male reproductive system, occurring in newborns (2-3%), the etiology of which remains unclear. According to the available data, it can be concluded that the lifestyle of the mother during pregnancy may increase the risk of cryptorchidism [1].

Aim: To identify the correlation between taking cyclooxygenase inhibitors during pregnancy and the risk of developing cryptorchidism.

Materials and methods: Survey of mothers of patients about taking cyclooxygenase inhibitors (acetaminophen, ibuprofen, indomethacin) during pregnancy, analysis of clinical recommendations.

Results: Children with a diagnosis of cryptorchidism in non-syndromic form were selected for the survey. A survey of 50 mothers conducted by us showed that 30 (60%) took cyclooxygenase inhibitors (acetaminophen) in the first and second trimesters of pregnancy, and the remaining 12 (24%) did not remember, and 8 (16%) did not take any cyclooxygenase inhibitors. It was found that cyclooxygenase inhibitors has the ability to have a detrimental effect on the endocrine system of the rainbow trout, which further prompted the team of Danish scientists to conduct a study of Danish children. Jensen et al. found that taking acetaminophen can moderately increase the risk of developing cryptorchidism [2]. Cyclooxygenase inhibitors block the androgen response to chorionic gonadotropin, thereby affecting the process of lowering the testicle. But this study did not reveal a connection between taking aspirin and ibuprofen and cryptorchidism [3].

Conclusions: An analysis of the literature and the survey indicated that there is some connection between cryptorchidism and acetaminophen, but at the same time, studies deny the relationship between other cyclooxygenase inhibitors and the occurrence of cryptorchidism. In connection with the widespread use of nonsteroidal anti-inflammatory drugs, this relationship should be carefully and in depth studied to reduce the risks of cryptorchidism, as it has cosmetic and psychosocial aspects that will directly affect the development of the child's personality.

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