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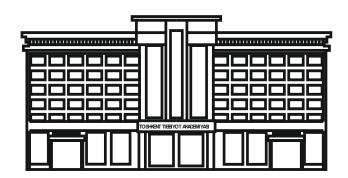


ЎЗБЕКИСТОН РЕСПУБЛИКАСИ СОҒЛИҚНИ САҚЛАШ ВАЗИРЛИГИ ТОШКЕНТ ТИББИЁТ АКАДЕМИЯСИ

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# TOSHKENT TIBBIYOT AKADEMIYASI **A X B O R O T N O M A S I**



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Usmonov U.R. COGNITIVE DYSFUNCTION AFTER MULTIPLE OPERATIONS

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#### SECTION #1: TOPICAL ISSUES OF THERAPY

#### INFORMATIONAL SIGNIFICANCE OF THE NEUTROPHIL-LYMPHOCYTE RATIO IN PATIENTS WITH CRITICAL CONDITION IN ACUTE CEREBRAL CIRCULATORY DISORDERS

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**Introduction**: Quantitative analysis of the leukocyte formula is an important research method that has diagnostic value in critical conditions. According to a number of authors, one of such indicators is the neutrophil-to-lymphocyte ratio (NLR) of the blood (1).

**The purpose of the study**: to determine the prognostic significance of NLR in predicting outcome of critical conditions caused by acute cerebrovascular disorder.

**Research materials and methods**: the study was carried out in the neuro intensive care unit of the Bukhara branch of the Republican Scientific Center for Emergency Medical Aid. The objects of the study were 62 patients, whose age ranged from 32 to 65 years (average age was  $56.3 \pm 3$  years), whose clinical and laboratory data were examined. There were 38 men (61.3%), and 24 women (38.7%). The study included patients with hemorrhagic (n = 30) and ischemic (n = 32) types of stroke. When assessing neuro status on the Glasgow Coma Scale (GCS), the mean score on admission to the hospital was  $9.3 \pm 2.1$ . According to MSCT data, hemorrhagic stroke patients accounted for 51 hemorrhagic hematomas (82.3%), stem 6 (9.7%), ventricular 3 (4.8%), and subarachnoid 2 (3.2%). Ischemic foci were diagnosed in the basin: middle cerebral artery 48 cases (77.4%), anterior cerebral artery 3 cases (4.8%), posterior cerebral artery 4 cases (6.5%), and vertebra-basilar basin 7 cases (11.3%). Comparison of clinical and laboratory parameters was carried out in three stages: the first stage - upon admission, the second stage: -on the 3rd day, the third stage – on the 7th day of intensive therapy.

**Results and their discussion**: When analyzing the obtained data of the neurological status, it was revealed that upon ad-

mission in all examined patients the level of consciousness according to the GCS was from 8 to 12 points (8 points n = 12, 9 points n = 15, 10 points n = 13, 11 points n = 8, 12 points n = 14). Analysis of leukoformula indicators of these patients showed that the average NLR was equal to  $2.2 \pm 0.64$ . At the 2nd stage of the study, there was an increase in the number of patients with a deeper impairment of neurostatus (GCS: 8 points n = 14, 9 points n = 18, 10 points n =14, 11 points n = 10, 12 points n = 6). This deterioration in neurological status was most likely associated with an increase in cerebral edema. In this regard, 14 patients were transferred to mechanical ventilation. In this category of patients, when analyzing the leukoformula, an increase in the number of segmented neutrophils and a decrease in the number of lymphocytes respectively were noted, correspondingly, the growth of their ratio index (more than 3.8).

In dynamics against the background of intensive therapy, 56 patients showed clinical improvement, which was confirmed by the obtained data of the neurostatus of the 3rd stage of the study (according to GCS: 8 points n = 8, 9 points n = 10, 10 points n = 15, 11 points n = 19, 12 points n = 10). These patients showed a gradual decrease in the NLR index below 2.1.

Of all the examined patients, death was observed in 6 cases (2 patients with ischemic and 4 patients with hemorrhagic stroke). These patients showed a progressive increase in the mean NLR in both groups compared with the first stage. (2,21±0,62, 4,15±0,74, 5,34±0,52,) (p<0,05).

**Conclusion**: A higher NLR score is a reliable indicator of clinical deterioration in patients and a predictor of an unfavorable outcome of critical conditions caused by acute cerebrovascular disorder.

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### POSTOPERATIVE COGNITIVE DYSFUNCTION IN PATIENTS WITH HYPERTENSIVE DISEASE

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**Relevance.** The most typical manifestations of brain pathology in vascular pathology are cognitive disorders - a violation of memory, learning ability, lack of one's own opinion, violation of emotional control and social behavior. The potential risk factors are also a genetic predisposition, and already existing cognitive violations in patients, the fact that occurs in patients with hypertension [1].

At the same time, to date, there are practically no data on the frequency of the development of cognitive deficit (PCD) after surgery in patients with hypertension in various types of anesthesia.

**The purpose of the study:** to determine the manifestation and cutting of cognitive disorders in patients with hypertension after surgery fulfilled in the conditions of general multicomponent anesthesia.

**Material and methods:** The study was carried out in surgical departments based on the Central Clinic of Romitan, Bukhara in the period 2020-2021. Operational intervention was carried out under conditions of general multicomponent anesthesia with artificial ventilation of the lungs.

The testing of cognitive functions was carried out in observed 54 (women 31, men 23) patients aged 20 to 59 years. And 20 patients were without hypertension in history (1group) and 34 patients with hypertensive disease in history (2 groups). To achieve a given goal, we conducted a study of cognitive function in patients of both groups with different surgical pathology before operation and 3 and 5 days after surgery.

**Results and discussion:** When evaluating cognitive functions in the postoperative

period, the patients verified to deteriorate the results of the test from the "10 words" at least 20% compared with the source data. In patients with 1 group, when testing, the PCD was not detected. In the second group of PCD to operation, 30 patients were revealed (88.2%). At the same time, a decrease in the volume of short-term memory is marked by 20-30%. The clinical picture of early twice in the patients observed by us after operations was characterized by a more pronounced decrease in the stability of attention, the pace and the volume of short-term memory compared to patients without hypertension in history. If the deterioration of the results of the test "10 words" in patients 2 groups before operations amounted to 20-30%, and after operations 60-70%, respectively.

Thus, general anesthesia and hypertensive disease as the factors of intercessors have a significant negative impact on the state of cognitive functions.

**Conclusion.** The obtained information on the prevalence of PCD in patients with hypertension in terms of general anesthesia will allow a scientific basis to determine the nature and volume of the required multidisciplinary care for patients in the peri and in the postoperative period.

#### Literature

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### CLINICAL MANIFESTATION OF ACUTE MYOCARDIAL DAMAGE IN PATIENTS WITH CORONAVIRUS INFECTION

Makhkamova M.M., Nurillaeva N.M. Tashkent Medical Academy, Uzbekistan

im: Coronavirus disease 2019 is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and has emerged as a global pandemic. SARS-CoV-2 infection can lead to elevated markers of cardiac injury associated with higher risk of mortality.<sup>[1]</sup> It is unclear whether cardiac injury is caused by direct infection of cardiomyocytes or is mainly secondary to lung injury and inflammation.<sup>[2]</sup> Systemic inflammation can contribute to the destabilization and rupture of unstable atherosclerotic plaques, and an increase in the procoagulatory potential of the blood can contribute to coronary artery thrombosis, resulting AMI. <sup>[3]</sup> Here, we analyze the occurrence and clinical manifestation of acute myocardial infarction among patients with coronavirus infection.

**Materials and methods:** The cohort retrospective study included 120 patients who were admitted to the cardiac intensive care unit of the TMA multidisciplinary clinic and the cardiac intensive care unit of the Republican Scientific and Practical Medical Center of Cardiology in the period from October to March after the opening of the second quarantine in our country with a diagnosis of acute myocardial infarction (MI).

**Results.** The average age of the patients was  $63 \pm 1.2$  years. According to the study, all patients had a history of COVID-19 in October-March, and only 22 patients (18.3%) had a positive test for coronavirus infection in the anamnesis, and 81.7% of all other patients had an infection test. negative. When collecting anamnesis, patients named from 4 to 6 symptoms of coronavirus infection and noted the fact of infection in public places and in the family. According to the discharge from specialized covid hospitals, 17 patients (14.3%) suffered a severe course of COVID-19, 47 patients (39%) had moderate-severe coronavirus infection, the remaining 56 patients (46.7%) had a mild

course. Taking into account the obtained data, the patients should have developed antibodies, but unfortunately only 22 patients (18.3%) had IgG in their blood.

The conducted clinical and laboratory data showed a change in the following parameters: IgA, IgG, the amount of Fibrinogen, D-dimer, Aspartate transaminase. According to the ECG data, the patients had different localization of the ischemic focus: along the posterior wall - 77 patients; on the anterior wall - 43 patients. Echocardiography data showed a relative decrease in ejection fraction up to 22.7-35%. It turned out that adherence to therapy according to the Morisky-Green questionnaire was different in patients: high - 76; low - 44 patients.

**Conclusion.** Patients with chronic cardiovascular disease are at an increased risk of acute cardiovascular events with poor prognosis. To effectively treat COVID-19 patients, health care professionals must be knowledgeable about the prevention and treatment of infectious diseases while paying attention to the underlying disease and organ protection. Considering the high incidence of AMI in the postcovid period, it becomes necessary to prescribe timely drug and non-drug therapy, which affects the prevention of the development of IHD complications by increasing the adherence of patients to the main and additional therapy.

#### Literature

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### EVALUATION OF THE EFFECTIVENESS OF TREATMENT OF TRIGEMINAL NEURALGIA USING SCALES AND QUESTIONNAIRES

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**elevance:** Trigeminal neuralgia (TN) Kis a disease manifested by sharp facial pain in the areas of innervation of its branches. The prevalence of trigeminal neuralgia (TN) is quite high and amounts to 30-50 patients per 100,000 population, and the incidence rate, according to WHO, is in the range of 2-4 people per 100,000 population. The disease occurs more often after 40 years and prevails in women [1]. To date, the problem of therapeutic care remains quite relevant, because The proposed approaches in the tactics of treating patients with TN do not lead to stable positive results. So, at present, drugs from the group of non-steroidal anti-inflammatory drugs, antidepressants and local anesthetics are used to relieve pain in TN. The most effective conservative is the use of anticonvulsants (carbamazepine, finlepsin) [2]. If the above measures are ineffective, surgery may be recommended. Microvascular decompression (MVD) in the detection of vascular compression of the trigeminal nerve root (CTN) in difficult-to-control pain syndrome, according to many authors, is an etiopathogenetic treatment [3].

**Aim:** To study the tools of severity of pain and quality of life in patients with trigeminal neuralgia to the background of conservative and surgical treatment.

**Material and methods:** 45 patients (28 women and 17 men) were examined, the average age of patients was  $58.3 \pm 8.8$  years (from 47 to 72 years). The following research methods were used: the study of the severity of pain syndrome according to the VAS scale, the SF 36 scale for assessing the quality of life.

**Results:** The objects of the study were patients with trigeminal neuralgia, divided into 2 groups - the first group - 25 patients who received conservative treatment, the second - 20 patients who received surgical treatment by the method of microvascular decompression. The observation results revealed that, the pain syndrome according to the VAS scale, in the first group of patients decreased from 5 to 3 points, and in the second group the pain syndrome decreased from 7 to 2 points. The quality of life according to the SF-36 scale after conservative and surgical treatment improved in the first and second groups.

**Conclusions:** The use of the VAS scale to study the severity of pain, the SF 36 quality of life scale, clinical and anamnestic data are effective for the diagnosis of trigeminal neuralgia. Also, the use of the microvascular decompression method reduces pain, and conservative treatment improves the quality of life in patients with trigeminal neuralgia.

#### Literature

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### COVID-19 AND DIABETES. CLINICAL FEATURES OF TYPE 2 DIABETES MELLITUS AFTER COVID-19

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**A**IM. According to the latest data of navin WHO , more than 166 million Coro- Diab

navirus cases were registered in the world. Diabetes mellitus is considered one of the most important comorbidities in patients with Covid-19 as it significantly increases morbidity and mortality. It is reported that the course of Diabetes Mellitus becomes worse after COVID-19 infection. This clinical study aims to compare main clinical, laboratory and instrumental findings of patients with type 2 diabetes with or without undergone COVID-19 infection.

**Materials and Methods.** This retrospective study includes 32 randomly selected patients with type 2 diabetes mellitus admitted to Tashkent Medical Academies 3rd Clinic between September 2020 and April 2021.Half of them (research group with 16 patients) underwent Covid-19 at least 3 months ago and another half (control group with 16 patients) weren't infected. In order to investigate influence of Coronavirus infection on the course of diabetes mellitus,we collated main clinical characteristics of both group patients.

**Results.** Overall 32 patients (21 men;11 women, medium age 59.6±6.9) were analyzed . Both fasting and postprandial glucose levels were higher in research group (FPG-median 11.4 vs 7.4 mmol/L and PPG-

median 16 vs 10.1 mmol/L p<0.001).There was a remarkable difference in blood pressure levels in Covid-19 undergone diabetics compared to non-infected ones(systolic-median 150.6 vs 133.7 mmHg p<0.05). Research group showed elevated prevalence of Ischemic heart disease (87.5% vs 68.7%). Considerably high glucose fluctuations and exposure to hyperglycaemia were experienced by research group patients during Covid-19 infection.

**Conclusions.** The COVID-19 global pandemic poses considerable health hazards, especially for patients with diabetes mellitus as it aggravates the course of disease and makes the whole condition at a great risk of poor outcomes. For this reason , diabetes care must include differentiated approach not only during Covid-19 infection, but also in rehabilitation term.

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### ANALYSIS OF CLINICAL AND LABORATORY STUDIES OF PATIENTS WITH COVID-19

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**Abstract.** An outbreak of severe acute and respiratory Covid-19 infection in China has led to its global spread and has become a pandemic (WHO 2020). This disease is characterized by the following clinical manifestations: asymptomatic, mild, moderate and severe. According to the results of numerous studies, individual characteristics of the organism, depending on the state of the immune system, play a decisive role in the development of the disease. These features include age, gender, and concomitant diseases. People of the elderly and senile age (65+) are at the greatest risk, which is associated with such concomitant chronic diseases as arterial hypertension, diabetes mellitus, obesity, lung diseases, smokers, chronic hepatitis [1,2]. PCR analysis of biomaterial is the main reliable laboratory method for confirming the presence of a disease. The presence and period of the disease is confirmed by the quantitative and qualitative method of CLIA for the determination of IgG and IgM.

**Aim.** The aim of the study is to assess the course and severity of the disease and to analyze laboratory data.

**Materials and methods.** The object of the study was 158 patients with Covid-19. Questionnaires, clinical observations, laboratory and instrumental analyzes.

**Results.** We examined the case histories of 158 patients. Of these women - 82

(52.5%), men - 76 (47.5%). Age from 20-84 years old. In the study of biomaterial by PCR analysis in 40 patients (25.3%) it gave a negative result and in 118 (74.7%) a positive one. It should be noted that in 100% of cases the asymptomatic course of the disease was determined by diagnostic signs -PCR was positive, and the treatment with the asymptomatic course was low. A mild course of the disease was noted in 48 examined patients. Of these women - 27 (56.25%), men - 21 (43.75%). In 36 (75%) patients in this group, the PCR analysis was positive, in 12 (25%) - negative. The CLIA method was used to determine IgG in 7, IgM in 8 patients.

In 59 examined patients, the course of the disease of moderate severity was noted, among which women accounted for 28 (47.4%), men - 31 (52.6%). In 46 (78%) patients of this group, PCR diagnostics gave a positive result, in 13 (22%) - negative. IgG in 27 and IgM in 27 patients were determined by CLIA.

Among patients with a severe course, amounting to 30 people, men and women were equally distributed - 15 (50%) people each. In this study group, PCR - positive patients amounted to 18 (60%) people, 12 (40%) patients were not found to have virus genes. The CLIA method was used to determine IgG in 12, IgM in 11 patients.

**Conclusion.** Based on the results obtained by the gender of the examined patients, it should be noted that, in contrast to

many published data, there was no significant difference in the number of sick women and men in our studies. An insignificant difference was noted in the number (decreased by 1.3 times) of positive results of PCR analysis in patients with severe clinical course.

Comparative analysis of age indices in the examined patients showed that both in mild and severe cases of the disease, age limits manifested themselves in a wide range from 20 to 71 years in men; 25-84 years old - for women. That is, no big difference in ages was found in patients of different groups. Research is still ongoing.

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#### **REACTION OF THE VEGETATIVE NERVOUS SYSTEM IN ACUTE BRAIN DISORDERS**

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im: Disorder of autonomic regulation is one of the mechanisms for the implementation of cerebral damage, which leads to an increase in mortality in the acute period of stroke, the special role of the vegetative nervous system(VNS) is in the adaptive and trophic nature of its impact. The participation of the VNS in the general reactions of the organism as a whole and its adaptive significance in those cases when there is a threat to the very existence of the organism, for example, in cerebral ischemia, is especially clearly revealed. Assessment of the vegetative status in patients in the acute period after suffering from stroke is important to determine the beginning of rehabilitation of patients. [1] This research was aimed at studying the nature of autonomic disorders in acute strokes.

Materials and methods: The vegetative status of 21 patients (10 women and 11 men) who were in the intensive neurology departments of the City Clinical Emergency Hospital (12 patients) and the Multidisciplinary Clinic of the Tashkent Medical Academy (9 patients) who were hospitalized from December to January 2020 were examined. Patients' age: 33-90 years old. All of them were diagnosed with stroke. We studied the vegetative status of patients in the acute period (first 5 days) by hemodynamic parameters (measured blood pressure, heart rate, respiratory rate, oxygenation) at rest and when changing position (turning on the side). Based on the data obtained, the Kerdo index was calculated to assess the quantitative ratio of sympathetic and parasympathetic manifestations. A questionnaire was conducted according to

the Guillaume-Wayne questionnaire scheme to study the general tone of the autonomic nervous system. [2].

Results: According to the measurements of blood pressure, heart rate, respiratory rate, oxygenation in patients at rest, the Kerdo index was calculated: 52% - sympathicotonia prevailed, 38% - vagotonia, 10% - amphotonia, and after a change in body position, namely, turning on the side and again the measurements of blood pressure, heart rate, respiratory rate, oxygenation, the Kerdo index was also calculated: 57% - sympathicotonia prevailed, 43% - vagotonia. The results of the survey carried out according to the Guillaume-Wayne questionnaire scheme showed that sympathicotonia prevails in 68% of patients, vagotonia in 28%, and amphotonia in 5%. Respiratory rate indices in 71% of patients did not change after exercise. Indicators of blood pressure, heart rate and oxygenation in most patients increased slightly.

*Conclusions:* High activity of the sympathetic nervous system was revealed in ischemic strokes. Cardiac arrhythmias are most common in right hemispheric brain lesions. With right hemispheric injuries, vagotonia is observed, and with left hemispheric injuries, sympathicotonia. The oxygenation index is improving (from 96-97 to 99), which indicates the need to start early rehabilitation of patients with strokes. The most important condition for the success of the implementation of the treatment and rehabilitation program in all cases is the early, starting with the acute stage of the disease, and gradually increasing in intensity, the inclusion of rehabilitation measures. [1]

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#### COMPARATIVE ANALYSIS OF THE EFFECTIVENESS OF THE METHOD OF PERCUTANEOUS ELECTRICAL STIMULATION AND BIPOLAR GALVANIC STIMULATION ON HUMAN POSTURAL STABILITY

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**Aim**: To compare the effectiveness of the PES method and bipolar galvanic stimulation (BGS) on human postural stability.

Materials and methods: Postural instability in the balance function worsens mainly in old age, which increases the degree of injury. Percutaneous electrical stimulation of the spinal cord (PES), as well as the technique of bipolar galvanic stimulation, is one of the promising non-invasive stimulation methods that can modulate the activity of neurons in the spinal cord. BGS is able to stimulate the vestibular nerves connected to both the semicircular canals and the otolith organs. By applying a small current through the subcutaneous electrode to the mastoid process behind the ear, you can change the response rate of all vestibular afferents. These changes are identical to

the changes that occur when the head rotates. After the subject stood on the stabilographic platform, the researcher turned on the stabilographic test on a laptop with software for conducting the survey. First, a control measurement was taken, without the use of stimulation – the subject stood on the stability platform for 3 minutes. After 3 minutes, the researcher completed the examination, the subject was given a signal that the examination was completed and a 10-minute break was held. After that, a measurement with stimulation was recorded - the subject again stood on the stabilographic platform and a 3-minute recording of the examination was recorded. Bilateral bipolar BGS was performed using a Digitimer DS 5 stimulator, as well as two skin electrodes. The anode electrode was located on the right occipital side of the head,

the cathode-on the left. The BGS current intensity varied from 1 to 3 mA. A Neurosoft MVP-4 stimulator was used to perform a single-channel brain ESM. A stimulating dermal electrode with a diameter of 22 mm was located at the level of the thoracic vertebrae T11–T12 between the spinous processes. Statistical analysis of the data was carried out using the Sigma Plot program. The normality estimation of the distribution and descriptive statistics are used.

**Results:** The BGS technique was used to activate postural mechanisms. BGS leads to the activation of the limb extensors on the side of the cathode electrode and their inactivation on the side of the anode electrode. This asymmetry causes the body to oscillate laterally in the direction of the anode stimulus. Galvanic vestibular stimulation modulates activity in the vestibular hair cells and their afferents by supplying an electric current subcutaneously through electrodes located above the mastoid processes of the temporal bones.

**Conclusions:** The greatest postural stability in the control experiment was observed in the subjects when standing on a hard surface with their eyes open. In healthy subjects, a T11-T12 thoracic vertebral PES with a frequency of 5 Hz increases the quality of postural stability. BGS in conditionally healthy individuals had a worse effect on postural stability compared to PES.

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#### BOTULINUM THERAPY IN THE TREATMENT OF CHRONIC MIGRAINE

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H eadache is one of the topical problems of neurology. The most difficult to manage are patients with chronic migraine (HM). The prevalence of chronic migraine in the world is averages 14%, it is more common in women. In the treatment of hypertension Botox has been used since 1994. In 2000, W. Binder and co-author, were published and S. Silberstein co-author, on the treatment of migraine, in 2001 - the first Russian manual on botulinum therapy, which showed the possibility of using the method for various types of headache. Today Botox is a unique drug for the prevention of hypertension in adult patients with HM.

The aim of the study is to compare the effectiveness of Botox and the standard of complex treatment for the preventive treatment of HM.

**Material and methods**. In 2019—2021 in the Clinics of the ASMI, a study was carried out, which included 34 women (average age is  $38.1 \pm 11.2$  years, duration of the disease  $12.1 \pm 4.3$  years). Patients suffered

from HM without aura, which was defined as headache that occurs 15 days or more per month, in more than 50% of cases it was migraine or probably migraine in nature: at least 4 different episodes of headache with a duration of 4 hours or more each. Patients from the main group (14 patients) did not receive additional prophylactic treatment. Before the study, all patients filled out the consent letter and were examined to exclude other types of headache.

The study was carried out for 9 months, the condition of the patients was assessed before treatment and after repeated injections of Botox (every 6 months), which was injected into the muscles of the head and neck using the fixed-point method. The examined patients were divided into two groups: 14 patients of the 1st group were injected with Botox 100 units each, 20 patients of the 2nd group were given standard treatment. The effectiveness of therapy was assessed by the diaries of headache of patients with registration of the frequency of all attacks of headache (background and paroxysmal), the number of analgesic drugs taken, adverse events; questionnaires for assessing the impact of migraine on daily activity and work capacity for migraine (MIDAS) for 6 months; questionnaires for subjective assessment of satisfaction with treatment. Statistical data processing was carried out using the Statistica 10.0 software package. Results are presented as mean value and error of the mean (M  $\pm$  SD). The critical level of significance when testing statistical hypotheses in the study is p <0.05.

**Results**. All participants completed their treatment safely. Before treatment, all patients complained of almost daily headache - background and paroxysmal (migraine). In the study, the frequency of all types of pain was assessed, since at the first stage of treatment, the transformation of chronic pain into episodic pains is a priority, and the patients do not set the task of reducing the frequency of a particular type of pain. After the 1st injection of botulinum toxin A, the frequency of headache attacks significantly decreased: in the 1st group from  $19.8 \pm 6.2$  to  $13.2 \pm 0.01$  (p <0.05) attacks per month, in the 2nd groupon the background of standard treatment from  $19.6 \pm 6.7$  to  $16.4 \pm 0.6$  (p < 0.005), a significant difference between the groups. The maximum decrease in the frequency of attacks reached by the 2nd month in the first group, by the end of the 6th month the indicators increased again, but were significantly (p < 0.05) lower than the background values: in the 1st group  $3.4 \pm 0.02$  attacks per month, in the 2nd group  $12.3 \pm 0.9$ . After the 2nd injection of the drug, the frequency of attacks in the first group continued to decrease: in

the 1st group  $9.3 \pm 0.04$  attacks versus 13.2 $\pm$  0.01 after the 1st injection (p < 0.05), in 2 group -  $9.2 \pm 0.2$  attakcs per month versus  $11.4 \pm 0.6$  attacs (p < 0.05), significant differences between the groups. At the final stage, a significant (p < 0.05) decrease in the frequency of headache attacks was noted to  $12.1 \pm$ 0.06 and 8.6  $\pm$  0.3 in groups 1 and 2, respectively, which indicates the preventive role of Botox regarding to the frequency of headache attacks. Patients in both groups were taking a large number of analgesics prior to the study. Already after the 1st injection of Botox, the amount of consumed analgesics significantly (p < 0.05) decreased until the end of the observation period.

**Conclusions:** The results of the study indicate the high efficiency of repeated injections of Botox and make it possible to recommend HM 100 units of Botox for use in preventive treatment as an effective dose. Prophylactic treatment should include at least two repeated cycles and continue as long as the patient continues to benefit from the administration of Botox and there are no serious adverse events. Prophylactic treatment should include at least two repeated cycles and continue as long as the patient should include at least two repeated cycles and continue as long as the patient should include at least two repeated cycles and continue as long as the patient should include at least two repeated cycles and continue as long as the patient continues to benefit from the injection of Botox and there are no serious adverse events.

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and its occurrence estimated with variation

ranging from 3% to 30%. This indicates the

importance of study in treatment issue of

#### **GLANCE ON RESEARCH WORKS OF PREMATURE EJACULATION TREATMENTS**

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#### **D**ackground of study

**D** Premature ejaculation (PE) is a common sexual dysfunction among males,

PE. Current Literature indicates increments of research work on the issue of PE treatments. Diagnosing and treating the premature ejaculation disorder is problematic for current medical practice due to the definition remains both subjective and uncertain in the clinical context. Therefore, aim of this study is to explore intervention method of PE diagnosis, and its forecasts in near future.

#### **Objective**

To explore intervention methods for PE diagnostics

#### Search methods

Trials including Randomized Controlled Trials were searched in computerized general and specialized databases, such as: MEDLINE by PubMed (1990 to 2021); EMBASE (1990 to 2021); LILACS (1990 to 2021); the Cochrane Central Register of Controlled Trials (Cochrane Library, 2021); and by checking bibliographies, and researchers. Key words are premature ejaculation, diagnosis of premature ejaculation and treatment of premature ejaculation.

#### **Criteria for selection**

Literature is selected based on randomized or quasi-randomized controlled trials for PE treatment. Additionally, research works on PE diagnosis were included systematics reviews and meta-analysis beside randomized trial studies.

#### Data collection and analysis

Overall, based on quality and relevance 392 published works since 1990 to 2021 year were selected for treatments of PE. Collected data were analyzed with time series statistical method for visualization of near futureю

#### Main results

Research works counts on PE treatments reported a higher increment in recent years. The trend of the time series forecasting model reached 82% for works on PE treatments, the forecast accuracy reached  $R^2 = 0.82$ . Taking into account temporal factors, the model predicted by the research works counts on the problem of PE treatments for the year of 2025 and they are expected approximately 32 works on PE treatments.

#### Conclusions

Based on our findings it is obvious that medical trials on PE treatment are significantly higher than PE diagnosis. Therefore, we are uncertain about efficiency of intervention methods of PE treatment without precision in diagnosis of PE. Further research works are needed to provide precision in PE diagnosis and treatments.

#### MECHANISMS OF VIOLATIONS OF THE STATES OF OXIDATIVE STRESS AND WAYS OF THEIR CORRECTION USING EXTRACT FROM THE FUNGUS G. LUCIDUM

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**Relevance.** This article describes the capabilities of Ganoderma Lucidum in correcting oxidative stress. Ganoderma Lucidum has been proven to scavenge free radicals, act as an antioxidant and enhance innate immunity.

The aim of the study. To determine the mechanisms of oxidative stress disorders using histological and biochemical research methods and ways to correct them using an extract from the fungus G. Lucidum.

**Materials and research methods:** All experimental animals were divided into 4 groups: group 1 - 10 mice - control, absolutely healthy mice

Group 2 - 1 main group (20 mice), in which acute liver failure was caused by a single intraperitoneal injection of 50% CCl4 0.06 ml of an oil solution (olive oil) - at the rate of 0.3 ml per 100 g of body.

3 group 2 main (20 mice), in which acute liver failure was caused by a single intraperitoneal injection of 50% CCl4 0.06 ml of an oil solution (olive oil) - at the rate of 0.3 ml per 100 g of body, but the correction of metabolic disorders was carried out intact drug (5% -2.0 ml of ascorbic acid).

4 group 3 main (40 mice), in which acute liver failure was caused by a single intraperitoneal injection of 50% CCl4 0.06 ml of oil solution (olive oil) - at the rate of 0.3 ml per 100 g of body, but the correction of metabolic disorders was carried out biologically active substances based on Ganoderma Lucidum (at a dosage of 100 mg / kg body weight).

#### **Research methods.**

1. Determination of the architectonics of the structural forms of hepatocytes against the background of the introduction of Ganoderma Lucidum.

- 2. Biochemical research methods
- 3. Statistical (Student-Fisher test).

**Results of the study:** according to the results of histological examination in the 3 main group, in which Ganoderma Lucidum was used, active liver regeneration was observed, as evidenced by the frequent mitosis of hepatocytes, fatty degeneration is less pronounced than in the 1 and 2 main groups. which used olive oil and 5% -2.0 ml of ascorbic acid. In the 3 main group, after exposure to Ganoderma Lutsidum, the proportion of intact hepatocytes was  $68 \pm 2.0\%$  $(p \le 0.05)$  compared with the 2 and 3 main groups (32.0  $\pm$  3.5%, p≤0.05). The study showed that the activity of cytochrome c in the 2 and 3 main groups was significantly higher than in the 1 main group. In partic-

ular, this is due to the effect of triterpene fractions and  $\beta$ - $\delta$ -polyglucans on an increase in liver cytochrome oxidase due to an increase in the nonspecific resistance of the organism, as a result of which the optical density of the solution decreases. At the same time, in the 3rd main group, the activity of cytochrome oxidase was 37.8% higher ( $p \le 0.05$ ) than in the 1st and 2nd main groups, and amounted to  $59.0 \pm 1.05$  nmol succinate / mg protein per minute (at a rate of 61.09 ± 1.09 nmol succinate / mg protein per minute). In groups 1 and 2, cytochrome c activity decreased by 38% ( $p \le 0.01$ ) and 44% ( $p \le 0.01$ ), respectively. As a result, after an increase in cytochrome c activity, endogenous redox reactions and metabolic processes in tissues accelerated, oxygen utilization improved, and tissue hypoxia decreased during CCl4 poisoning.

**Conclusions:** The activity of cytochrome after exposure to G. Lucidum was significantly higher, which is associated with the effect of triterpene fractions and  $\beta$ - $\delta$ -polyglucans on increasing liver cytochrome oxidase due to an increase in nonspecific resistance of the organism.

#### EFFICACY OF HYPOLIPIDYMIC AND HYPOCHOLESTEROLEMIC EFFECT OF GALEGA OFFICINALIS I PLANT EXTRACT

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The relevance of the topic. Nowadays several studies are underway on the efficacy of hypoglycemic and hypolipidymic effect of Galega officinalis I plant extract. However, the hypolipidymic and hypocholesterolemic effects of the plant are poorly understood. Taking that into account, for the first time the hypolipidymic and hypocholesterolemic properties of this plant in different models of diabetes were studied in comparison with  $\alpha$ -lipoic acid.

Medical and social significance of diabetes severe\_complications of the disease are explained by increasing of numbers of disabilities and death. Therefore, it is important to study the pharmacological properties of local herbal medicines for the treatment of hyperlipidemia and hypercholesterolemia. Medicinal goat extract reduces glucose concentration glycated hemoglobin total cholesterol increases the amount of oxides in high density lipoproteins. In practice, the comparison of Galega officinalis I plant extract with a-lipoic acid has been studied. The disclosure of the mechanisms of hypoglycemic action is of particular importance in the implementation of pre – hospital research and application in medicine.

**The purpose of the research.** To study the hypolipidemic effect on animals and to to apply it in medical practice.

**The method and material of the research.** In our study, 15 healthy female rabbits with a body weight of 2,4 – 3,8 kg were selected to determine the effect of exSECTION #1: TOPICAL ISSUES OF THERAPY

perimental rabbits on serum lipid spectra in the dithizone model of diabetes. The rabbits were divided into 5 groups of three in each. Once a day for 30 days they were injected into the ear vein with dissolved in ammonia water at a dose of 25 mg/kg the effect of phytodiabetol at doses of 6 and 69 mg/kg was studied in the mild form of diathesis diabetes.

The results of the research: It is known that in type 1 diabetes, the process of lipolysis increases and the amount of triglycerides in the serum increases. In type 2 diabetes, obesity develops. Therefore, subsequent experiments have studied the effect of phytodiabetol on serum lipids in diabetic diabetes. In the background of diabetes mellitus, the amount of total lipids in the serum increased from  $9,3 \pm 0,2$ g/l to 17,0 ± 0,6 g/l (82,8%; P<0,001), triglycerides from  $2,15 \pm 0,14 \text{ mmol/} l$  to 3,47±0,21 mmol/l (61,4%; P<0,001), cholesterol from 1,30 ± 0,13 mmol/ l to 8,41 ± 0,19 mmol/l (64,6%; P<0,00001), β – lipoproteins from 2,32  $\pm$  0,17 g/l to 2,84  $\pm$ 0,11g/l (22,4%; P<0,05) compared to control group (1st table). The amount of cholesterol and triglycerides in the blood were significantly reduced by 44,8 and 47 % and 47,3% and 52,5%, compared to the control group at the doses studied under the influence of phytopreparation, the comparative drug under the influence of  $\alpha$  – lipoic acid reduced the amount of cholesterol in the blood by 54,6% respectively, triglycerides were lower than intact. It was also found that  $\beta$  – lipoproteins did not lag behind  $\alpha$ - lipoic acid in its effect on reducing the amount of lipoproteins in the blood (13,7%) and 18,7%).

Effects of the medicinal plant Galega officianalis I on the spectrum of lipids in the serum of experimental rabbits during treatment (n=3, M±m)

When treated with the medicinal plant Galega officinalis I, the total lipid content increased by 40% (10,2 ± 0,5 g/l; R<0,01) 42,3% (9,8±0,4 g/l; R<0,01) compared to the control group at doses 6 and 60 mg/kg decreased significantly and did not differ from the intact indicators. Under the influence of comparative hypolipidemik drug ( $\alpha$ - lipoic acid) its content decreased by 45,3% (9,3 ± 0,7 g/l; R<0,01).

**Conclusion:** In our study, the dithizone model of diabetes was characterized by a reliable increase in total lipid levels by 17,0  $\pm$  0,6 g/l; (R<0,001) times, triglycerides 1,61 times, cholesterol 6,47 times and  $\beta$ -lipoproteins 1,22 times. The medicinal plant Galega officinalis I has hypolipidemic, hypotriglycemic and hypocholesterolemic properties. But the hypocholesterolemik activity of the medicinal plant Galega officinalis I was several times lower than the activity of  $\alpha$ -lipoic acid. It is clear that the medicinal plant Galega officinalis I has a positive effect on the secretion of insulin from pancreas, improves the metabolism of fats in the tissues. Based on the above, it can be concluded that the medicinal plant galega officinalis i can be recommended in the prevention and treatment of disorders of fat metabolism in type 2 diabetes.

The results show that the medicinal plant Galega officinalis I can be recommended for the treatment of hyperglycemia in type 2 diabetes, as well as for the correction of hypelipidemia and hypercholesterolemia.

#### MORPHOLOGICAL SIGNS OF CARDIOVASCULAR DISEASE IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE ACCORDING TO AUTOPSY PROTOCOLS

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COPD as a part of chronic respiratory economic damage from which amounts to 4.7% of the country's gross domestic product. In recent years, noncommunicable dis-

eases (NCDs) have caused 79% of all deaths in Uzbekistan, which is higher than the global mortality rate from NCDs (71%). According to epidemiological studies, one of the main causes of death of COPD patients is not cardiac or respiratory failure, but cardiovascular events.

**Aim:** To establish the frequency of morphological signs of hypertension disease (HD) and ischemic heart disease (IHD) in patients with pathomorphologically and clinically documented chronic obstructive pulmonary disease.

**Materials and methods:** The object of the analysis was 281 autopsy protocols of deceased patients with documented COPD in the city pathological center at the clinical hospital. The control group consisted of 50 autopsy protocols for deceased individuals without clinical and pathomorphological signs of COPD. Signs of hypertension were adopted: the wall thickness of the left ventricle is more than 15 mm and the mass of the heart is more than 350 g. Signs of ischemic heart disease were assessed by the presence of atherosclerosis of the coronary arteries with a severity of more than 50% and more than 75%.

**Results:** According to the results of an autopsy, pathomorphological signs of COPD in the main group were identified in the presence of a combination of pathomorphological signs: hyperemic and edematous bronchial mucosa, with the presence of enhanced longitudinal folding of the bronchi in 91.3%; the presence of mucous plugs of a serous-purulent nature in the lumens of the bronchi, obstructing their lumen in 84.7%; lung emphysema of varying severity in 98.1% and diffuse peribronchial pneumosclerosis in 62.5% of autopsies.

An analysis of the occurrence of pathomorphological markers of coronary heart disease and hypertension disease, assessed by coronary artery atherosclerosis (CAAS), as well as heart mass more than 350 grams and left ventricular wall thickness more than 15 mm (LVWT), showed that these indicators were met: CAAS more than 50% met in the main group in 85.6% and in the control group in 66.6%, heart weight more than 350 g and LVWT more than 15 mm were found in 81.7% and 80.7% of cases in the main and 56.5% and 44, 1% in the control group. It was also found that the CAAS degree of "more than 50%" was found in 39% in the main and 64% of the control group, and the degree of "more than 75%" was found among 60% of patients with pathological symptoms of COPD (36% in the control group).

**Conclusions:** A comparative analysis of the occurrence of pathomorphological signs of IHD and HD showed a higher frequency of occurrence among individuals with morphological signs of COPD, which indicates a high degree of comorbidity of IHD and HD in patients with COPD, which confirms the hypothesis of a high risk of cardiovascular catastrophes in COPD. The presence of a severe degree of coronary artery atherosclerosis in patients with COPD compared with the control group is probably a consequence of the proatherosclerotic action of systemic inflammation factors, which are characteristic of COPD.

#### **EFFICIENCY OF LYSINOPRIL APPLICATION IN PATIENTS WITH HYPERTENSION**

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**Aim:** These drugs, along with a distinct antihypertensive effect, also have a pronounced organoprotective effect associated with the effect on the tissue renin-angiotensin-aldosterone systems localized in various organs. To evaluate the hypotensive efficacy of lysinopril in a daily dose of 10 and 20 mg and its effect on the circadian rhythm of blood pressure in patients with metabolic risk factors.

**Material and methods:** The study involved 30 patients with mild to moderate arterial hypertension aged 45 to 70 years with a combination of metabolic risk factors. In 90% of patients, various violations of the lipid spectrum were recorded (in-

creased LDL cholesterol, hypertriglyceridemia, decreased HDL cholesterol), 73.3% of patients had abdominal obesity, hyperuricemia was observed in 30% of cases, and 53.3% of patients were diagnosed with disorders of carbohydrate metabolism (violation carbohydrate tolerance, fasting hyperglycemia). The duration of treatment was 3 months. Due to the development of side effects, 5 people were eliminated.

**Results:** The data obtained showed that the majority of patients achieved a hypotensive effect with lysinopril monotherapy. At the same time, an excellent effect was noted in 15 patients (50%), good in 5 (20%) and satisfactory in 4 patients (16%). An unsatisfactory effect was registered in one patient (4%). Therapy with lysinopril at a dose of 10–20 mg / day led to a significant decrease in systolic and diastolic by 10.7% and 9.5%, respectively, in the magnitude and rate of the morning rise in blood pressure. Target blood pressure was achieved in 60% of patients. On the background of therapy, a positive clinical effect was noted in the form of an improvement in the well-being of patients, a decrease in weakness, headaches, and palpitations. Complaints of headache after the end of therapy persisted only in 4% of patients (before treatment - 60%). There was also a decrease in pain in the region of the heart.In the majority of patients with arterial hypertension, a circadian rhythm of blood pressure (BP) was initially recorded, characterized by an insufficient decrease in blood pressure at night. As a result of treatment, the number of patients with a normal circadian rhythm of blood pressure increased due to patients with insufficient decrease in blood pressure at night.

**Conclusions:** Thus, the obtained research data indicate the effectiveness of lysinopril in patients with metabolic disorders in arterial hypertension, with the normalization of the circadian rhythm of blood pressure, which improves the quality of life and improves the well-being of patients.

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#### SPECIFIC FEATURES OF THE COURSE OF COVID-19 IN DIFFERENT HEMODYNAMIC PHENOTYPES OF CHRONIC HEART FAILURE

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#### ntroduction

Despite many scientific studies on cardiovascular diseases,the introduction of new methods of their prevention, diagnosis and treatment, the number of deaths and disabilities caused by these diseases has not decreased, and today it is a medical and social problem remains There are 3 hemodynamic phenotypes of the left ventricular ejection fraction which differ in their course, development of disease consequences, diagnosis and effectiveness of prescribed treatment. Numerous algorithms and methods for the treatment of low hemodynamic phenotype of the disease have been approved, and the treatment of its preserved and intermediate hemodynamic phenotypes continues to this day in an empirical manner 10 % mortality and 11.7% survival. Coronavirus disease in patients with pre-existing cardiovascular disease has worse outcomes than in patients without pre-existing cardiovascular disease. Covid-19 can aggravate disease progression through direct viral infiltration, inflammation, or cardiac fibrosis.

#### Purpose

Evaluation of the specific course of coronavirus infection and an alternative treatment in patients with different hemodynamic phenotypes of chronic heart failure

#### Methods

50 patients with chronic heart failure with coronavirus infection are being treated at the Central Clinical Hospital No. 2 of the Main Department of Medicine under the Presidential Administration of the Republic of Uzbekistan. Out of a total of 50 patients, 25(50%) were diagnosed with HFpEF, 15(30%) with HFmrEF, and the remaining 10(20%) with HFrEF. Of these, 32 (64%) were men and 18 (36%) were women. The age category of patients was from 55 to 76 years old, their average age was  $63,4 \pm 1-2$ years. Middle-aged men prevailed - 22, elderly - 4. In all patients, the parameters of general clinical laboratory methods (blood test,urine test, biochemical test, coagulogram), serum S-reactive protein, D-dimer, procalcitonin, ferritin, platelet aggregation activity; renin, aldosterone are determined by immunoenzyme method. In addition, Instrumental examination methods: chest X-ray (CT), ECG, Echocardiogrphy were assessed.

#### Result

The average aldosterone level of all examined patients were 40 ng/dl (HFpEF patients were 30 ng/dl; HFmrEF patients were 50 ng/dl; HFrEF patients were 80 ng/ dl). The mean levels of reactive protein C and renin during coronavirus infection in patients with chronic heart failure were 35 mg/l and 20 ng/ml/hour, respectively(HFpEF patients were 9 mg/l and 5 ng/ ml/hour; HfmrEF patients were 28 mg/l and 10 ng/ml/hour; HFrEF patients were 42 mg/l and 40 ng/l/hour correspondingly. Meanwhile, Different hemodynamic phenotypes of chronic heart failure also differ in the amount of d dimer; HFpEF,HfmrEF and HFrEF (10 ng/ml, 15 ng/ml and 22 ng/ml respectively. In all hospitalized patients, INR indices were determined; in patients HFpEF were about 1.0, HfmrEF patients were 0.8-0.9 and HFrEF patients were almost <0.8 : PTI level was increased in all patients 150% (120 – 180%). Patients with different hemodynamic phenotypes of chronic heart failure also had varying degrees of pneumonia: HFpEF( 5-25%); HfmrEF(50%); HFrEF(70-90%).

#### Conclusions

In patients with different hemodynamic types of chronic heart failure, the effects of coronavirus infection are manifested at different levels of severity.

The impact of coronavirus infection in patients with different hemodynamic phenotypes of chronic heart failure should be evaluated with particular attention to clinical, laboratory, and functional status conditions. Because, based on laboratory and instrumental examinations coronavirus infection is more severe in patients who have HFrEF and HFmrEF in comparison with HFpEF.in patients with chronic heart failure under the influence of coronavirus infection, it is necessary to take into account the different hemodynamic types of heart failure and prescribe drugs for these types when performing standard treatments.In order to prevent the development of longterm complications of coronavirus infection in patients who suffer from CHF, it is advisable to monitor laboratory and instrumental examinations in dinamyc and longterm continuation of standard drug treatment.

#### ENDOTHELIN-1 GENE LYS198ASP POLYMORPHISMS IN PATIENT WITH CHRONICAL OBSTRUCTIVE PULMONARY DISEASE

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**Chronic** obstructive pulmonary disease is a continuously progressive pathology, of-

tributing to the rapid development of irreversible changes in the bronchial wall. One of these factors is endothelial dysfunction and the main factor of endothelial dysfunction is endothelin-1.

**Aim:** Investigation aims to identify the role of mutations and polymorphisms of the endothelin-1 gene Lys198Asn in the development of chronic obstructive pulmonary disease (COPD).

**Materials and methods:** The authors studied 49 patients with an established diagnosis of COPD. The control group consisted of 46 apparently healthy patients, comparable to the main group in terms of age and sex. The study of mutations and polymorphism of the endothelin-1 gene Lys198Asn was estimated by PCR method, statistical analysis was carried out using the statistical software "OpenEpi, Version 2.9". **Results:** As a result, it was found that the heterozygous Lys / Asp genotype of the endothelin-1 gene Lys198Asn was found in the COPD group 1.25 times more often than in the control group.

It was established that the mutational genotype Asp / Asp - was found in the COPD group 1.9 times more often than in the control group (RR 1.9, OR - 2.3;  $\chi 2 = 0.4$ ), which indirectly shows the significance of changes in this gene in the development of COPD, and its course.

**Conclusions:** The endothelial dysfunction is an important component in the development of subendothelial thickening of the bronchial epithelium. The influence of the presence of a genotypic predisposition to endothelial dysfunction with its phenotypic manifestations was evaluated.

### THE STUDY OF THE DAILY RHYTHM OF ARTERIAL HYPERTENSION IN PATIENTS WITH ARTERIAL HYPERTENSION AND OBESITY

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im: Arterial hypertension (AH) is a **C**ardiovascular disease that affects 15–25% of the world's adult population. [1] However, in recent times, the addition of AH to obesity has become more common. Such cases are complicated by early development of cardiovascular complications, early disability. [2] At present, daily monitoring of arterial blood pressure plays an important role in the diagnosis and diagnosis of arterial hypertension. Daily monitoring of arterial blood pressure is used to determine the daily profile of arterial blood pressure, which correlates with the damage to the target organs. [3] Here, we determine the specific shift characteristics of the daily rhythm of arterial hypertension in patients with obesity and arterial hypertension with normal body weight.

**Materials and methods**. The examination was conducted in the 1st cardiology and general therapy departments of the TMA multidisciplinary clinic. 54 patients with arterial hypertension (25 women and 29 men) were examined, with an average age of  $62.7 \pm 10.3$ . Verification of the diagnosis of arterial hypertension and stratification of patients by risk group were determined according to WHO criteria (1999). According to the stratification of the risk of complications of cardiovascular

disease, 10 patients (35%) were found to be at medium risk, 36 patients (45%) were at high risk and 8 patients (20%) were at very high risk. Patients were divided into 2 groups: patients with arterial hypertension and abdominal obesity (38 patients) and patients with arterial hypertension and normal body weight (16 patients). Daily blood pressure monitoring in all patients was performed on an ABPM 50 (China 2017) device; Body mass index (BMI) was determined in all patients. The number of patients with normal BMI was 10 (18.5%).BMI of patients with arterial hypertension and obesity revealed overweight in 16 patients, I degree obesity in 17 patients, and II degree obesity in 11 patients. In overweight patients, the BMI was  $27 \pm$ 2.1, in grade I obesity  $33 \pm 1.6$ , and in grade II obesity  $36.7 \pm 1.2$ . Overweight and obesity were reported in 53.8% of women and 8.9% of men. Waist circumference (WC) was measured using a non-stretch centimeter tape. Abdominal obesity was noted when WC  $\geq$  102 cm for men and WC  $\geq$  88 cm for women. All patients underwent biochemical blood tests (lipid spectrum, glucose, and creatinine). Quality of life was determined in all patients using the SF 36 questionnaire.

**Results.** According to the waist circumference, the prevalence of obesity was 33.8% (men -8.9%; women - 53.8%). When studying the daily monitoring parameters of arterial blood pressure, no reliable difference was found between the indicators in patients with AH and overweight. The mean daily systolic blood pressure in obese patients was also found to be higher than the daily index compared to non-obese AH patients. A normal decrease in nocturnal BP was observed in 69% of patients with AH with normal body weight. High variability was found in 4 (40%) patients with AH with normal body weight, 8 (50%) in overweight patients, and 19 (67%) in obese patients.

#### Conclusion

1. According to the results of daily monitoring of blood pressure, the daily change in the rhythm of blood pressure in patients with arterial hypertension and obesity is more common than in patients without obesity. 2. Non-dipper and night-picker cases are more common in patients with arterial hypertension and obesity based on the results of daily monitoring of blood pressure.

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### FREQUENCY OF DEVELOPMENT OF INTRADIALYSIS HYPOTENSION IN PATIENTS WITH CHRONIC KIDNEY DISEASE DIFFERENT ETIOLOGY

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**Aim.** Intradialytic hypotension (IDH) is considered to be a frequent complication of hemodialysis (HD) and is associated with symptom burden, increased incidence of access failure, cardiovascular events, and higher mortality. <sup>[1]</sup> Here, we investigate the effect of etiology CKD on the incidence of IDH.

**Materials and methods:** The study included 45 patients with CKD receiving treatment with chronic hemodialysis 3 times a week for at least 6 months. The first group consisted of 15 patients with chronic glomerulonephritis, the second group - 16 patients with diabetic nephropathy, the third group - 14 patients with CKD of a different etiology. Patient groups were drafted in such a way that no differences in age and gender were observed between them.

**Results.** The frequency of episodes of IDH (decrease in blood pressure less than 100/60 mm Hg) was estimated retrospectively as the average number of such ep-

isodes in the previous month. In the first group, the average number of IDH episodes per month was  $1.8 \pm 0.6$ , in the second group -  $3.6 \pm 0.7$ , in the third group -  $1.7 \pm 0.9$  (p = 0.05). In patients from the second group, IDH was observed more often compared with patients from the first and third groups.

**Conclusion.** The obtained results show that IDH develops more often in patients with diabetic nephropathy than in patients withchronic glomerulonephritis and CKD of other etiology, which can be used to develop differentiated approaches toprevention and treatment of this complication.

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#### SECTION #2: TOPICAL ISSUES OF MATERNITY AND CHILDHOOD PROTECTION

### MEDICAL AND SOCIAL ASPECTS OF CHILDHOOD DISABILITY AND WAYS TO REDUCE (ON MATERIALS OF TASHKENT)

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**ctuality and novelty:** The leading **C**auses of childhood disability are determined. The bulk of the structure and level of child disability related to illness of the nervous system, congenital anomalies, diseases of the musculoskeletal system and connective tissue. The study of the conditions and life style of families and children with disabilities in comparison with families of healthy children allowed determining the odds ratio, identifying the leading risk factors of childhood disability, developing a prognostic table of prevention the causes contributing to the development of childhood disability. In the formation of childhood disability are important factors in life parents, the type of relationship in the family, living conditions, bad habits, presence of chronic diseases and extra genital mother, heredity factors, and obstetric and gynecological history (akin to marriage, age at marriage, interval between births, the outcome of previous pregnancy and the baby at birth.

**Aim:** The scientific rationale for improving the quality of health care and social assistance, strengthening the prevention of childhood disability in a comprehensive study of the causes and identify their risk factors. **Materials and methods:** medico-social, social hygiene, mathematics and statistics.

**Results:** Prognostic tables developed for the early detection of risk factors contributing to the formation of childhood disability, as well as guidelines for the prevention of childhood disability.

**Conclusions:** The recommendation is the introduction to the work of medical institutions of the Republic of Uzbekistan and used in teaching in the departments of medical schools. Implementation guidelines allowed in the early stages to identify families with risk factors, improve the quality of care for children with disabilities.

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### FETOMETRIC CHARACTERISTICS OF THE FETUS DEPENDING ON THE TYPE WOMEN'S CONSTITUTIONAL BODY SHAPES

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**Aim.** To establish correlations between the somatotype of a newborn child and the nature of the mother's physique, to determine the severity of the relationship between various anatomical parameters of the mother and the fetus, to establish the patterns and possible timing of the formation of these signs and the range of their anatomical differences.

**Materials and methods.** 239 primiparous women with normal pregnancy and childbirth were examined. In addition to the general clinical methods of examination, the following somatometric indicators were determined for each woman at admission: height, weight (initial, before pregnancy), distantia spinarum, distantia cristarum, distantia trochanterica, external straight pelvic size, pelvic width indices (IST) and the Yarho-Kaupe weight index (IAC) were calculated according to generally accepted methods. In newborns, the height and weight at birth were recorded, and at the age of 21-22 and 31-32 weeks, the biparietal, frontal-occipital dimensions of the head, head circumference, abdominal circumference and hip length were determined using ultrasound scanning.

**Results.** All pregnant women were divided into three groups - 151-160 cm ("short"), 161-170 cm ("medium-sized"), 171-180 cm ("tall"). A comparison of the data obtained shows that the growth of newborns from mothers with different body types does not differ statistically. However, a comparison of individual growth groups (for example, dolichomorphic stunted and brachymorphic tall mothers) reveals statistically significant differences in the growth of newborns. Changes in the quantitative characteristics of fetometric indicators can be given by the example of changes in the length of the fetal thigh. At 21-22 weeks, the fetuses of dolichomorphic mothers had a hip length of 37.4±0.9 mm (in fetuses of short mothers - 36.2±1.3 mm; from medium-sized mothers-37.9±0.8 mm; from tall - 38.1±0.7 mm), in mesomorphic pregnant women-37.7±0.8 mm (in short-sized 37.2±0.9 mm; in medium-sized-37.1±1.0 mm; in tall women - 38.9±0.6 mm), in brachymorphic pregnant women this indicator was 37.8±0.7 mm (in short women - 37.0±0.9 mm; in medium-sized women-38.3±0.7 mm; in tall women-38.0±0.4 mm). That is, the length of the fetal femur, not statistically differing in pregnant women of different body types, had significant differences in the allocation within the selected body types of growth groups. It should be noted that these differences are determined already in the early fetal period of human ontogenesis. At 31-32 weeks, the fetuses in dolichomorphic mothers had a hip length of 61.0±0.9 mm (in fetuses in short mothers-61.1±1.0 mm; in medium – sized women –  $60.1\pm0.8$  mm; in tall women - 61.8±1.0 mm), in mesomorphic pregnant women – 61.0±0.7 mm (in short women – 59.4±0.8 mm; in medium – sized women  $- 62.6 \pm 0.6$  mm; in tall women  $- 61.1 \pm 0.8$ mm), in brachymorphic pregnant women-61.4±2.0 mm; in medium-sized women-60.5±1.0 mm; in tall women-63.4±1.0 mm; that is, at this time, the above established pattern persists.

**Conclusion.** Thus, a comparison of the size and weight characteristics of the mother and the fetus / newborn suggests that fetometric features of fetuses and newborns (different weight, but comparable body size at birth from mothers of different physiques, but with differences within growth groups) are associated with the inheritance of the morphofunctional type of the structure of its tissues, and primarily the ratio of the muscle and connective tissue component.

### DIAGNOSTIC CHARACTERISTICS OF PATHOGENIC MICROFLORA IN OSTEOMYELITIS IN CHILDREN

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In patients with children, against the background of antibiotic resistance of heterogeneous pyogenic flora, morphofunctional immaturity of organs and tissues, lack of local and general immunity, a high level of purulent-septic pathology remains. Acute hematogenous osteomyelitis remains a frequent and severe purulent-septic disease, accounting for 3 to 12% of surgical diseases of childhood. Activation of obligate microflora in children usually occurs against the background of immunodeficiency states (1, 3, 4).

Regional monitoring of pyogenic flora was conducted in 147 patients with acute hematogenous osteomyelitis (CSO). Patients were on examination and treatment in a multidisciplinary children's hosSECTION #2: TOPICAL ISSUES OF MATERNITY AND CHILDHOOD PROTECTION

pital in Tashkent and in the clinic TashPMI between 2016 and 2020. The age structure: up to one year - 26 (17.7%) children, from one year to 3 years - 16 (10.8%), from 4 to 7 - 23 (15.7%) and from 8 to 14 - 82 (55.8%). The local form of CSOs was found in 127 (86.40%) cases, septic-piemicic - in 18 (12.24%), toxic - in 2 (1.36%). Of the concomitant diseases, anemia (50.3%), chronic tonsillitis (41.2%), acute angina (7.3%), gastrointestinal disease (5.6%), chronic bronchitis (7.3%), anemia Hypotrophy (5.1%). The operative manual was the leading component of medical measures (2).

For bacteriological study, the pathological material was taken from an osteomyelitic focus and seeded on elective nutrient media in order to isolate the pure culture of the pathogen, followed by a study of sensitivity to antibacterial drugs.

The material was taken in the preoperative period (in the presence of external fistula) or intraoperatively. The technique of collecting and transporting biological material for microbiological research met all the necessary requirements. The incidence of detection of nonclostridial anaerobes averaged 20%, of which bacteroides - 72% of cases, peptococci - 28%. In 97% of studies, aerobic anaerobes are identified in association with aerobic flora (mainly with pathogenic staphylococcus, proteus, Pseudomonas aeruginosa). Most often, the components of microbial associations were represented by staphylococcus with gram-negative microorganisms (75.0%), and also with gram-positive microorganisms (12.5%). Associations with participation of only gram-negative microorganisms were detected in 12.5%.

In the process of studying the ratio of microflora for various degrees of severity of CSO in children, we found that the proportion of gram-negative and anaerobic microflora directly depends on the severity of CSO, so the share of opportunistic enterobacteria in patients with severe CSO is 14.3% Than in the group with mild disease.

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#### HOMOCYSTEINE IN THE FULL TERM PREGNANCY IN PREECLAMPSIA

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**Aim.** Homocysteine is an important parameter of endothelial dysfunction, high levels of which enhance platelet aggregation due to reduced synthesis of natural vasodilataters. Further, these processes lead to hemodynamic disorders in the placenta, predicting the development of complications in both the mother and the fetus [1,2,3]. The aim of the study was to determine the level of homocysteine in the term of pregnancy in preeclampsia.

**Materials and method.** We examined 110 pregnant women with a full term. Of

these, 40 (36.4%) pregnant women made up the control group. The main group was women with mild pre-eclampsia 45 (40.9%) and severe 25 (22.7%). Assessment of the severity of preeclampsia, examination of pregnant women was carried out according to the National Protocols for the Management of Women with Hypertensive Conditions. The examination did not include patients with extragenital pathology, with the presence of infectious-inflammatory diseases, mental disorders. All patients were informed about the examination and agree with the manipulations that were carried outby them. Biochemical measurements of homocysteine level were performed by EIA. The fetal condition was assessed by real-time ultrasonic scanning, where the fetometric parameters were evaluated. We determined mean, mean square deviation, CI, Student's t-test was applied to assess group heterogeneity and hypothesis testing. The Pearson correlation method was used to search for correlation dependence.

Results. Analysis of general clinical data indicated the absence of differences in groups by age, demographic indicators, birth parity in history and gestation period (p > 0.05). Analysis of systolic blood pressure and proteinuria levels revealed significantly distinct values between groups (p < 0.05). Most often in the I and II groups there were first-term, in the III group rebirths prevailed. The level of homocysteine in the group of healthy pregnant women had an index of  $3.68 \pm 0.62 \text{ mmol/l}$  (CI 0.49-0.86). No statistical differences were found in homocysteine values in the group with mild preeclampsia  $11.73 \pm 0.65$  (0.51-0, CI 92 p = 0.812) compared to the control group. In the group with severe preeclampsia, the level of homocysteine was reliably distinguishable 18.8 ± 0.33(CI 0.26-0.47, p = 0,004). However, correlation analysis indicates a moderate linear direct correlation with mild preeclampsia (r = 0.58) and a strong association in the group with severe preeclampsia (r = 0.82).Therewas also a direct strong association between elevated homocysteine and fetal restricted growth syndrome in mild (r = 0.65) and severe (r = 0.87) forms of preeclampsia.

**Conclusions**. In the full term of pregnancy, there is a significant increase in homocysteine associated with an increase in the severity of hypertension, however, this indicator was significantly higher only in severe preeclampsia compared with a normal pregnancy. This indicator can be used as an additional research method in the diagnosis of severe preeclampsia along with generally accepted diagnostic criteria.

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#### IDIOPATHIC SCOLIOSIS: SURGICAL TREATMENT OF DEFOMITY WITH A ENDOCORRECTOR ROD AMONG KIDS AND ADOLESCENTSS

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**Aim:** evaluate the results of applying of the endocorrector rod in children with age of 7-10 years and adolescent patients.

**Materials and methods:** In the department of Adolescent orthopedics and congenital pathologies of the Republican Center of Traumatology and Orthopedics, 20 patients with idiopathic scoliosis were operated on. The age of the patients ranged from 7 to 19 years (primary school age (7-10 years) - 10 children, adolescence (15-19 years) - 10 children). According to their age, patients were divided into two groups: the first group- 7-10 years, 10 patients and

the second one- 15-19 years, 10 patients. In addition to clinical studies, X-ray of the spinal column in 2 projections and multi-spiral computed tomography were used in 100% of patients. All patients had severe fourth grade of thoracolumbar part of spine, deformity ranged within 69-105<sup>o</sup> according to Cobb (the first group- 56-97<sup>o</sup> and the second group-78-118<sup>o</sup>).

All patients were performed one staged surgical treatment, where established endocorrector rod in thoracolumbar part of spine. SECTION #2: TOPICAL ISSUES OF MATERNITY AND CHILDHOOD PROTECTION

**Results**: Patients were kept in the hospital 10 days after surgery. There were no any neurological and infectious complications during observation. Verticalization of patients started from third day and from fifth day walking of them. The average percentage of correction were 45% (42°) in the first group and 32% (35°) in the second one. The proportion of the correction hesitated from 22° to 52°, among kids aged 7-10 years and from 12 to 42° among adolescents. After the operations scoliotic deformation of the spine were corrected and prevented progression of the deformity.

**Conclusion**: Results observes that, correction proportion is higher among kids aged 7-10 years than adolescents. Even though, the first group reached higher results, the group must be observed till the

end of the adolescence and might be re-corrected. The second group reaching lower results, characterized by patient's high satisfaction with treatment results and changed social adaptation of patients. The use of an endocorrector rod allows us to achieve good results in correction scoliosis in both kids and adolescents.

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### FEATURES OF ANEMIC SYNDROME IN PATIENTS WITH TYPE 2 DIABETES MELLITUS AND KIDNEY DISEASE

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ctuality. Type 2 diabetes mellitus (T2DM) is one of the most pressing and global health problems in the 21st century. According to the International Diabetes Federation (IDF) - 415 million adults live with diabetes worldwide and approximate estimation, about 193 million patients are undiagnosed diabetes. T2DM accounts about 90 percent of all diabetes patients [1]. An individual with T2DM is at high risk of microvascular, macro vascular and other health complications. One of the health issues, anemic syndrome is a common and often untimely-diagnosed concomitant diabetes pathology [2]. Prevalence of anemia is two to three times higher in diabetics than for patients with comparable renal impairment and iron stores in general population. Therefore, in this paper the issue related to anemic syndrome in patients T2DM with chronic kidney disease (CKD) will be assessed using meta-analysis.

**Aim:** to explore the prevalence and severity of anemic syndrome in patients T2DM with chronic kidney disease

**Materials and methods:** Trials were identified through the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE and manual searches of bibliographies. Selection criteria was to choose all randomized controlled trials comparing anemic syndrome in patients T2DM with and without renal pathology. Search terms were used as "anemia syndrome in type 2 diabetes mellitus", "type 2 diabetes mellitus with chronic kidney disease" and "type 2 diabetes mellitus". Collected search results were analyzed using meta-analysis technics.

**Results:** Trials related to anemic syndrome in patients of T2DM were identified 44 studies published between years 1990 to 2021. In the last decade, 16 trials conducted and documented closely related to our aim. Search results indicated for T2DM with kidney diseases 3739 trials published between years 1990 to 2021. Through reducing the searchingscope, 14 works were identifiedstrictly related to the aim of study. Overall 42326 trials, 15 Cochrane protocols, 150 Cochrane reviews were identified

through searches of database and bibliographies.

**Conclusions:** The meta-analysis shows that of anemic syndrome in patients with diabetes is 38% and its prevalence prevails in patients with type 2 diabetes.Most patients (77 percent) with diabetes mellitus were diagnosed with mild anemia. Based on statistical results of Literature analysis the occurrence of anemic syndrome in patients with CKD is 76% and is significantly higher than in patients without renal pathology. The frequency of anemic syndrome increases with the progression of the stages of CKD, which is natural and may be due to many factors, including a decrease in the synthesis of erythropoietin. As conclusion, the health issues related to T2DM with chronic kidney diseases should be assessed in further wide scope of meta-analysis studies. It will comprehensively supports methodological basis for practical applications.

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#### THE INCIDENCE OF CONGENITAL HEART DEFECTS

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Actuality. World statistics show that the incidence of children born with birth defects is 6.8 per 1000 live births. But if here classify heart disease, which does not appear in infancy and remain undetected for many years of his life, but have an innate nature (e.g., mitral valve prolapsed, aortic butterfly valve, a variety of rhythm disturbances), this number will increase significantly. It seems that it is not too much. But if it is to count on a multimillion population of the city, region or country, it turns out not so little.

**Methods.** Every year in Uzbekistan, more and more children are born with heart disease among congenital anomalies, which means that the problem not only affects you, but also now. Tens of thousands of people have known a lot for doctors for a long time, long-term treatment and parents like you. They have experienced exactly what you are experiencing today.

But you're much easier now because modern pediatric cardiology can learn everything to help congenital heart disease almost always, and in correction - almost always. And keep in mind the main thing - about 97 percent of children who underwent surgery for CHD at an early age can live a normal life - grow, learn, work, create 97 percent of children who underwent surgery for CHD at 97 can live a normal life. growth, study, work, family upbringing.

**Results.** Statistical observations, the locking frequency of congenital heart disease, are conducted for several decades. But I wonder what the statistics are constantly changing. The fact is that with the advent of new methods of investigation became possible to identify some flaws much earlier and more frequently than before. In addition, as the introduction and development of specialized cardiac care and improvement of knowledge experts in the field are diagnosed more often, i.e., just keeps getting better "detection".

**Conclusion.** In the statistics of the centers, which made the operation will be other figures relative frequency. This is because there are concentrated the patients in need of surgical care, often emergency. Cardiac clinics in our country a lot, and in recent years new centers. The following data on the number of operations performed in these clinics at the beginning of 2019. Be that as it may, when most of the UPU special urgency in operation there. This does not mean that nothing should be done. On the contrary, the child should show specialists at the slightest suspicion of the UPU, to know the exact diagnosis. And then, when the diagnosis is clear, we can talk about "the forecast", i.e., about what to do and when, and what might happen to the child in the future.

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#### HISTOLOGICAL CHANGES IN UTERINE EROSION

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**Aim:** One out of every two women admitted to gynecologist suffers from erosion. The disease is very common among the population. 70% of women in the ommon suffer from the disease. These reasons alone mean that the disease needs to be prevented on a large scale as soon as possible.

**Materials and methods:** Erosions are most prevalent in women during their menstrual years, in those who have had children, and during cervical or vaginal infections. They are less common in virgins and in older women who have experienced menopause. The erosion itself is relatively insignificant; occasionally, however, it may precede cervical cancer. Extensive erosions can involve part of the surrounding vaginal wall. As the ulcer heals, it acquires patches of pinkish-tan epithelium (covering), which form small islands over the eroded area.

**Results:** Cervical ectropion is usually found on routine pelvic examination of women in the reproductive age group. It is an asymptomatic variant but has been

correlated with chronic cervicitis. It is a common physiological condition amongst adolescents and pregnant women.Being asymptomatic in most cases, cervical ectropion is diagnosed during a routine pelvic examination or at the time of pap screening.

**Conclusion:** Further investigations are carried out to exclude other possibilities. They include the following: Nucleic acid amplification tests for chlamydia and gon-orrheal cervicitis. Triple swab. End cervical and high vaginal swabs are taken to rule out cervicitis. It is mainly done when vaginal discharge is purulent.

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SECTION #2: TOPICAL ISSUES OF MATERNITY AND CHILDHOOD PROTECTION

### EVALUATION OF THE EFFECTIVENESS OF THE USE OF INSULIN DEGLUDEK IN PATIENTS WITH TYPE 2 DIABETES

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Actuality. Achieving optimal glycemic control is an important aspect of preventing and slowing the progression of complications associated with diabetes mellitus, as well as reducing the cost of the treatment [1,2]. Insulin degludec is a novel, ultra-long-acting insulin analog that allows flexible dosing in patients with diabetes mellitus without compromising glycemic control and safety of therapy.

**Aim.** To evaluate the effectiveness of the use of insulin Degludek in patients with type 2 diabetes.

Materials and methods. The study included 50 patients with a reliable diagnosis of type 2 diabetes mellitus. Of these, the main group (1) consisted of patients with type 2 diabetes (n = 25) receiving insulin Degludek (Tresiba), and the control group (2) - patients with type 2 diabetes (n = 25)receiving NPH insulin (Insulotard). Patients of both groups, in addition to insulin, took hypoglycemic drugs oral (Metformin. Amaril). The average age of the patients was  $59.5 \pm 5.9$  years, the duration of type 2 diabetes was  $8.5 \pm 6.7$  years. In this case, the average insulin dose was  $30.8 \pm 5.9$ units / day in group 1, and  $32.8 \pm 6.1$  units / day in group 2. To assess carbohydrate metabolism, fasting blood glucose and postprandially, glycated hemoglobin (HbA1c) were studied at the beginning of the study and after 6 months. Hypoglycemia was assessed based on patient self-monitoring diaries and recent blood test results.

**Results.** At the beginning of the study, the patients of both groups showed DM decompensation. Fasting glucose in the 1<sup>st</sup> group 11.7  $\pm$  3.2 mmol/l versus 12.2  $\pm$  2.5 mmol /l in the control group, postprandial glucose - 14.8  $\pm$  3.7 mmol/l versus 16.3  $\pm$  3.5 mmol/l, HbA1c - 9.2  $\pm$  1.3% versus 10.5  $\pm$  1.2%. After 6 months, certain differ-

ences were found between the patients of both groups. Thus, the fasting glucose level in the main group was  $8.7 \pm 3.2 \text{ mmol} / l_{\star}$ postprandial glucose - 11.8 ± 3.7 mmol / l, HbA1c - 7.8  $\pm$  1.3%, while in the 2<sup>nd</sup> group - the average level of fasting blood glucose was 9.2 ± 2.5 mmol/l, postprandial glucose - 12.3 ± 3.5 mmol/l, and HbA1c - 8.5 ± 1.2%. Also, BMI values were comparable in both groups (27.6  $\pm$  1.2 kg / m2 and  $27.2 \pm 1.5 \text{ kg} / \text{m2}$ , respectively). When analyzing the results of the lipid spectrum, in the main group, the values of total cholesterol and triglycerides were lower than in the control, while the values of HDL-C, on the contrary, were higher. The average blood pressure was also lower in the study group compared to the control group. In the 1<sup>st</sup> group, mild episodes of hypoglycemia were recorded in 8 (32%) patients, in the 2<sup>nd</sup> group - in 12 (48%) patients. Among them, 5 (20%) patients of the 1<sup>st</sup> group and 6 (24%) patients of the 2<sup>nd</sup> group had nocturnal hypoglycemia.

**Conclusion.** Insulin Degludec (Tresiba) in combination with other oral hypoglycemic drugs leads to improved glycemic control in patients with type 2 diabetes mellitus, while reducing the risk of nocturnal hypoglycemia and all hypoglycemic events.

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#### MEDICAL AND SOCIAL FACTORS AND PATHOGENETIC MECHANISMS OF EARLY PREGNANCY LOSS IN WOMEN WITH RECCURENT MISCARRIAGE IN HISTORY

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Actuality. Miscarriage is a complex process that occurs with many complications as a result of the action of various exogenous and endogenous factors. One of these complications is a miscarriage, which occurred in the second trimester of pregnancy. The psycho-emotional state with the threat of miscarriage is one of the key moments in modern obstetrics. Because, losing a long-awaited child, a woman faces an enormous psychological stress on the nervous system, which can lead to irreparable consequences.

**Aim.** To identify medico-social risk factors and assess the state of the endometrium in women with an early loss of this pregnancy and a history of recurrent early miscarriage.

**Materials and methods.** A prospective assessment of the course of pregnancy and perinatal outcomes of 104 women was carried out. The main group consisted of 65 patients with threatened miscarriage and recurrent early miscarriage in history, whose real pregnancy was terminated in the first trimester. The comparison group consisted of 39 women with a threatened miscarriage and recurrent early miscarriage in history, whose and recurrent early miscarriage in history.

whose actual pregnancy progressed to 12 weeks.

**Results**. In non-developing pregnancies (group I), there was an increase in the frequency of violations of villous differentiation, chromosomal pathology in the form of avascularization of chorionic villi, lymphocytic-macrophage inflammation, edema of the endometrial stroma, zones of necrosis. Spontaneous miscarriage (group II) revealed: focal sclerosis and fibrosis of the stroma, delayed differentiation of fibroblast-like cells into precidual cells, focal perivascular and peritubular lymphoplasmoghistiocytic infiltration of the stroma, sclerosis of the walls of the spiral arteries.

**Conclusion**. In non-developing pregnancy, there is a violation of the differentiation of chorionic villi with a violation of their vascularization, which was a morphological confirmation of a possible chromosomal pathology. The cause of early reproductive losses in the form of spontaneous miscarriage was chronic inflammation in the endometrium. The data obtained must be taken into account when determining an individual pre-gravid training program.

### TREATMENT OF HYPERCOAGULABLE CONDITIONS IN WOMEN WITH MISSCARRIAGE IN EARLY GESTATION

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**R**elevance. Miscarriage is one of the most pressing topics in obstetric practice. Recently, one of the most discussed miscarriage problems are thrombophilia. Under thrombophilia is understood as hereditary or acquired abnormalities in the hemostatic system, predisposing to the development of thrombosis. Perhaps this is due to the fact that all classic components of Virchow's triad are present even in uncomplicated pregnancy and childbirth. Despite many modern technologies, the level of this state remains at a high level, since it is a consequence of several factors. Bearing in mind that the inability to endure before the deadline is a cornerstone these days, physicians have to consider all the disorders that can become the basis of this condition. To eliminate the argument that we all must use all the treatments available today.

**Purpose of the study.** Our aim was to compare the level of effectiveness of treatment for women with the hypercoagula-

tive properties of blood that lead to spontaneous miscarriages after 20 weeks of pregnancy.

Material and methods of the study. The main group consisted of 41 women with miscarriage in anamnesis, after excluding anatomical, hormonal and genetic causes. From the day of conception, the patients of the main group were added to the conventional therapy for the treatment of miscarriage (protective regimen, synthetic progestins, antispasmodics) drugs aimed at preventing hypercoagulation .These patients were injected daily with low molecular weight heparin subcutaneously in combination with aspirin at a daily dose of 100 mg under the control of a hemostasiogram (every two weeks). The comparison group consisted of 17 women with a history of miscarriage in the anamnesis, who followed the standard treatment regimen for threatened abortion.

#### **Results and discussions**

In pregnant women who received antithrombotic therapy, the normalization of the level of fibrinogen and the molecular marker of thrombophilia - D-dimer, 5.1  $\pm$  0.3 g / l and 589.9  $\pm$  40.2, respectively, was recorded. In pregnant women of the comparison group with the progression of pregnancy, this marker had a tendency to increase, 6.9  $\pm$  0.5 g / L and 913  $\pm$  28, respectively. Other indicators of international normalized ratio, Activated partial thromboplastin time did not differ significantly before and after the start of treatment. A positive result in the form of prolongation of pregnancy was registered in 23 (79.3%) women in the main group.

When studying the state of coagulation in the main group, a statistically significant increase in the level of platelets was found against the background of the prescribed course of treatment, which amounted to 203 ± 12.01 10x9. In the comparison group, which received conventional treatment, a reduced level of platelets in the venous blood was determined throughout the treatment period  $181 \pm 18.5 \ 10x9$ . In the main group, a slight increase in blood clotting time was also stated  $112.43 \pm 1.08$ s (onset of coagulation),  $205.43 \pm 2.11$  s (end of coagulation), the onset and end of bleeding time almost did not change in the comparison group as a result of treatment, 112.5 ± 1.1 s, 205.48 ± 1.87 s, respectively.

**Conclusion.** Identification of thrombophilic conditions in patients with premature miscarriage allows timely and individual prescribing of drug correction of hypercoagulability, including by comparing the level of D-dimer, which will prevent this pathology in the future.

### EPIDEMIOLOGY OF MULTIPLE CHRONIC DISEASES IN THE FEMALE POPULATION OF CHILDBEARING AGE IN ANDIJAN

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Of interest was the study of epidemiology and aspects of the prevention of multiple chronic diseases (polypathies) in the populations of women of fertile age (FFW) in the Ferghana Valley of Uzbekistan, where research in this direction has been conducted since the 70s, some experience has been gained and great importance is attached to the quantitative combination of various non-communicable diseases and their risk factors.

THE AIM of the STUDY was to study the prevalence of the main multiple chronic non-communicable diseases (polypathies) among the unorganized population of women of fertile age in the city of Andijan in the Ferghana Valley.

#### **Materials and methods**

As the objects of the study, the districts of Andijan were selected, which, according to statistical indicators, met all the requirements of representativeness.

A 10% representative sample of 15-49year - old women (1,598 people in the old part of the city and in the new district) was formed from the electoral lists of the old and new parts of the city ( the election campaign that preceded the start of the study) using random number tables, after verifying the addresses in the Central Address Bureau of Andijan and the Housing and Communal Services.

#### **Results and discussion**

One of the main objectives of our research, which we sought to solve, was to identify multiple pathologies in order to develop optimal approaches to the prevention of polypathies among VFS at the individual and population levels. Studies have shown that 86.3% of women have a chronic multiple organ pathology with a number of diseases of 2 or more (polypathies). Only 23.5% of VFS did not have chronic non-communicable diseases (CNS). 56.7% had one chronic non - infectious pathology, 84.8% - three, 57.9% - four, and 41.8% - all 5 CNS at the same time.

It was found that the prevalence of polypathies increases with the age group up to 20 years (43.0%), then with increasing age, the frequency of multiple chronic diseases increases linearly and statistically significantly, amounting to 76.2% in the age group 20 -29 years (P < 0.01), 94.7% in the age group up to 39 years (P < 0.01) and 98.6% in the age group 40 -49 years (P < 0.05). Most often, the examined women aged 15-49 years have 2 CNS (84.7%), followed by a combination of 5 CNS (41.8%), with approximately the same frequency registered in women with one and four CNS in 56.7% and 57.9% of cases, respectively.

At the age of co 20 years, only 4.4% of the examined patients did not have CNS. At least one CNS was detected in 10.5% of the examined patients, a combination of two CNS was observed in 12.3% of the examined patients, 3 CNS - in 7.9%, 4 CNS - in 5.3% and 5 CNS - in 2.6% of women.

Among women under the age of 29, only 7.8% of the examined patients did not have chronic multiple organ pathologies; at least one CNS was noted in 17.4%. A combination of two or more chronic multiple organ pathologies was found in half of the examined patients - in 50.9%. In 12.3% of women, one chronic pathology was detected, in 15.7% - three, in 10.7% - four, and in 3.6% - all 5 CNS at the same time. In the age group up to 39 years, 94.7% of women have polypathies with the number of diseases 2 or more. Among them, only 11.3% of women did not have CNS, 21.4% had one CNS, 26.0% had 2 CNS, 21.4% had three, 13.8% had four, and 6.7% had all 5 CNS at the same time. A combination of two or more chronic diseases is quite common (59.6%, P < 0.01).

According to our data, the highest frequency of polypathies is observed among women aged 40-49 years - 98.6%. In this group, only 0.3% of the examined patients had no analyzed pathologies. The examined patients have 1 CNZ - 4.7%, 2 CNZ - in 15.6%, 3 CNZ - in 19.9%, 4 CNZ-in 23.1% and 5 CNZ - in 35.0% of cases.

Such a picture of the epidemiological indicators of the incidence of polypathies and a linearly increasing population pyramid is most likely associated with the accumulation of certain risk factors, as well as physiological and pathological features occurring in the body of women with increasing age. In addition, with age, there is a decrease in the activity of the sympathoadrenal system, which is associated with the prevalence of certain CNS, and on the other hand, an increase in the frequency of polypathies can be associated with financial difficulties, problems with employment, poor nutrition, the presence of chronic infections of the female genital area, as well as with violations of the psychoemocyanal status as a result of frequent childbirth and pregnancy.

Of course, to identify the patterns of dependence of the prevalence of multiple chronic diseases on regional (endemic) risk factors, appropriate epidemiological studies are needed, which will largely help solve the current problems of reproductive health of the female population.

#### **Conclusions**

1. Among the female population of fertile age, there is a fairly high prevalence of multiple chronic diseases (polypathies). Almost half of the women have a combination of four or five chronic pathologies.

2. Intensive accumulation of chronic multiple organ pathologies with the number of diseases of two or more, bi-and poly-causal risk factors occurs in the reproduc-

tive age of the female population. A peculiar "peak" of polypathies and various combinations of endogenous risk factors falls on the age groups of 30-39 and 40-49 years.

3. The proposed project of the epidemiological study of polypathies in the populations of VHF and their risk factors contributes to the development of optimal approaches to the prevention of multiple diseases at the individual and communal levels.

4. It seems appropriate to conduct epidemiological studies on a regular basis starting from early adolescence, and to carry out measures for the integrated prevention of polypathies on a regular basis and on a regular basis in various groups of women of childbearing age in large numbers with the forces of district doctors and GPOs, regional branches of the centers for "Health" and prevention of CNS.

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### THE EFFECTIVENESS OF THE TREATMENT OF THIN ENDOMETRIUM IN UTERINE INFERTILITY IN WOMEN WITH LOW MASS WEIGHT

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Actuality: Endometrium – unique structure of the female body intended for reproductive function. Full maturation of the endometrium, its receptivity and the ability to enter into an adequate "dialogue" with the product conception is the key to a successful onset and gestation. According to domestic and foreign authors, the prevalence of infertility reaches 10-15%, in some regions Uzbekistan - 20%, and the frequency of spontaneous miscarriage in the first trimester of pregnancy remains at the level of 16%.Decreased female fertility has many reasons, among which the share of the uterine factor of infertili-

ty in isolated or the combined variant accounts for 24-62%.

**Aim**: The main goal of our research is to identify the causes in infertile women with thin endometrium and eliminate them in a timely manner. Because in infertile women, this cause is often diagnosed late or remains among other causes of infertility. Body weight is especially important for endometrial hypoplasia.

**Materials and method**: A total of 85 infertile women with endometrial hypoplasia were included in the study, with an average age of  $26 \pm 8$ . Our research was conducted at the Women's Health Center for 2019-2021

years. Prospective cohort randomized controlled trial.

Results: Our first cohort group A included infertile women with 55 thin endometrium. The first group is further divided into 2 subgroups, is 20 out of 55 women do not have a body mass deficit, but they have endometrial hypoplasia. The remaining 35 women have low body mass and thin endometrium. There are 30 women in our second cohort group B who are infertile women with normal body mass and normal endometrium. The 20 of our women (23,5% infertility women )in our first cohort group were given low-frequency ultrasound therapy, progesterone (Duphastone) in the second phase of the menstrual cycle, and mostly vitamins in the treatment because they did not have a body mass deficit. the remaining 35 infertile women (41.2% infertility women) were given estrogen drugs (Lenzetto, Divigil) in both phases of the menstrual cycle in addition to the above treatment because they have a body mass deficit. In our second cohort, 30 infertile women, we used vitamins, low-frequency ultrasound therapy in the treatment of endometrial hypoplasia. The results of our study show that in 20 women in our first cohort group, the incidence of pregnancy after our modern treatment was 21%. In the remaining 35 women, the figure was 88%.In our second cohort, this result ended up being 35%.

**Conclusions:** In summary, body weight is also important in infertile women today, which means that they are underweight or overweight, which in turn leads to hormonal imbalances. The most common cause of infertility is a thin endometrium. This modern approach to infertility treatment can reduce the number of infertile families and restore reproductive health in the future.

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#### FEATURES OF CHRONIC HEPATITIS B COURSE DURING WOMEN PREGNANCY

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Despite vaccination, chronic hepatitis B is still a burning problem of modern health care in Central Asia. Statistics shows that many people infected with hepatitis B are young people, including women of childbearing age. The course of this disease during pregnancy is an important issue.

**The purpose** of our research is investigation of ultrasound, clinical and laboratory changes in liver during pregnancy with chronic hepatitis B.

**Materials and methods**. For investigation purposes two groups of 60 pregnant women were formed. The first group of 40 women with chronic hepatitis at 25-30 years old without complaints and clinical and laboratory changes. The second group consisting of healthy women at 25-30 years old. Pregnant women of both groups were comprehensively and periodically examined during pregnancy. For all, a comprehensive laboratory analysis, liver US and Doppler sonography were performed.

#### **Results and discussion**

With regards to investigation results for 30% of women with chronic hepatitis the changes in laboratory and U.S values were noted. The level of enzymes was increased. For 15 % of pregnant women US showed such changes as increased liver echoicity, induration and enlargement. Doppler sonography showed increased blood flow in portal vein up to 24 m/s.

70% of pregnant women did not experience significant changes in biochemical blood tests and liver US values.

#### Conclusions

1. According to our research, pregnancy does not always contribute to progression and exacerbation of chronic hepatitis. 2. Most changes were occurred only for laboratory values.

#### Literature

1. The value of ultrasound in determining the stage of chronic diffuse liver diseases. Thera-

#### IMPACT OF POSTPARTUM DEPRESSION ON CHILD'S HEALTH

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The actuality of the problem. According to a Literature review by Norhayati and the authors (2015), the incidence of postpartum depression occurs in different percentages in different months of a newborn's life. In developed countries, from 5.5% to 24% for mothers of infants under 4 weeks of age, from 2.6% to 35.0% for mothers of infants aged 4 to 8 weeks, and from 2.9% to 25.5 % in mothers of infants under 6 months of age. in mothers less than 12 months old, 6.0% to 29% suffer from postpartum depression. During postpartum depression, the mother's mood is characterized by depression, crying, lack of satisfaction and joy, as well as anxiety, and the somatic side - by sleep disorders, loss of appetite, adynamism; cognitive situations of decision-making and self-management are disrupted. We know that childhood is an important period of personality formation, and most of the various disorders of neuropsychological development occur during this period. The term "mother-child" dyad refers to the future psychosomatic development of the baby.

**Purpose of the study.** The effect of mood disorders of mothers on the health of children under one year of age treated with various somatic diseases was studied. At the same time, we studied cases of postpartum depression in mothers due to indifference to caring for the child and his physiological needs (sleep, nutrition, health). Material: In this study (p. 18), children aged 6 months to 1.5 years (12 girls (66.6%) and 6 boys (33.3%) were treated in the "Children's Department" during an average age of 10,5 months). Mothers were chosen. Almost all children undergo treatment with a diagnosis of upper and lower respiratory tract dis-

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ease and grade 2 anemia (N- 90-80 g / l). 11 women (61.1%) were in hospital with their first child, 6 women (33.3%) with their second child, and 2 women (11.1%) with their third child. 12 (66.6%) women living with their spouses, 5 (27.7%) women whose spouses left to work in remote countries, and 1 (5.5%) divorced woman.

**Research methods:** The Edinburgh Postnatal Depression Scale (EPDS) was needed to determine PD in women, which we translated into Uzbek. It consists of 10 short answers and gives a clear answer on 4 options. They assess the mood she has been feeling for a week. Using this method requires copyright. [5, 9, 10] After a separate interview with women, according to the results obtained on the Edinburgh scale, women with a score of 0-7 have a normal mood status, women with a score of 8-10 have a predisposition to postnatal distress, and women with a score of 11-21 and above are prone to true postnatal depression. We conducted a study with the children of mothers who scored exactly 8-21 on the EPDS. This includes the age of the mother, the age of the child, the number of children in the family, the frequency of births (-1 point for easy births, -5 points for difficult births), information about the child's health (whether the child is sick for the first time -1 point, frequent illness -5 points ), infant feeding (breastfeeding, artificial or mixed), how much time is spent on child care, whether relatives, especially spouse, help in child care, how much sleep the child sleeps in 1 day, mothers' birth and attitude to life (appropriate, quite the opposite).

**The result.** Analysis of the data obtained during the study showed that out of 18 selected mothers, 1 (5.5%) was in nor-

mal condition, 5 (16.6%) were in abnormal condition, and the remaining 12 (83.2%) mothers were in abnormal condition.Ten (55.5%) of the mothers had complications, and it was observed that depression was higher in these mothers. In 4 mothers (22.2%) the delivery was by caesarean section. Thirteen women (72.2%) said they did not have time to take care of a child, did not manage their agenda well, and 5 women (27.7%) said they did not know their nursing skills well.11 women (61.1%) were in the hospital with their first child, 6 women (33.3%) with their second child, and 2 women (11.1%) with their third child. PD was particularly common in women who lacked support from their spouse in the family. When the child's sleep was checked for age-appropriateness, sleep deprivation was found in almost all of the 18 children. A study of female sleep deprivation found that 10 women (55.5%) slept less than 7 hours a day. Eleven women (61.1%) were breastfed and 7 women were artificially breastfed, while children older than 6 months were given delayed feeding. Of the 18 children, 10 (55.5%) were identified as children with frequent illnesses, and these children were also found to be children of mothers with severe depression. When their perceptions of the child were examined, almost all women with one child said

that it was difficult to raise a child, that they were capricious and worried about getting sick.

#### **Conclusions:**

1. The Edinburgh scale is a reliable scale for detecting postpartum depression, and it is very important that almost all women take the test during and after pregnancy.

2. Research has shown that postpartum depression negatively affects the perfect course of child care and leads to frequent illnesses of children.

3. Complications of childbirth affect not only the health of the child, but also the development of postpartum depression.

4. Inadequate child care, breastfeeding, not giving extra food on time, lack of interest in knowledge about care exacerbate the child's physical, mental and somatic problems.

5. The detection and treatment of postpartum affective disorders in women is critical to the future health of mother and child. Clinical examinations in women during the perinatal period should include an assessment of their psychoemotional status and detection of postpartum depression. The data presented indicated the need for therapeutic intervention in the maternal and child diada to treat maternal postpartum depression and correct its effects in children.

### MATHEMATICAL PREDICTION OF THE OUTCOMES OF COMBINED TRAUMATIC BRAIN INJURY IN CHILDREN IN THE ACUTE PERIOD

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### **C**ormulation of the problem:

**L** Recently, both in Uzbekistan and abroad, new specialized, computerized means of researching various diseases have been intensively developed. New informative methods of data analysis are being developed and widely introduced into clinical practice. Along with other medical sciences, the role of predicting early outcomes of concomitant severe traumatic brain injury is also increasing.

Combined traumatic brain injury is very common and their number increas-

es every year in children. They are characterized with an acute rapid course, a tendency to progression and deterioration of the patient's condition, up to a lethal outcome, according to the literature, mortality in concomitant TBI ranges from 76% to 95% of cases. According to statistics, over the past 20 years, the incidence of concomitant traumatic brain injury has increased almost 2 times.

#### **Goal and tasks:**

The aim of the work is to develop and implement a hardware-software complex

based on the combined use of selective echopholonscopy and electroencepholography, low-amplitude electrical stimulation, an analog-to-digital converter and a laptop in diagnostics and treatment in the preoperative and postoperative period in patients with concomitant traumatic brain injury.

The following tasks are being solved within the framework of the project:

- Ensuring the technique of selective echopholonscopy and electroencepholography, transforming it from qualitative to quantitative.

- Obtaining a graphic image of echopholonscopy of electroencephlograms; Creation and implementation of software digital values of the main indicators into practice.

- Carrying out digital selective echopholonscopy and electroencephlograms for monitoring functional disorders of the cranial system in the preoperative and postoperative periods in patients with acute pathology.

- Assessment of severity depending on the degree of traumatic brain injury in the preoperative and in combined traumatic brain injury in the postoperative period in patients with acute pathology.

- Carrying out a comparative analysis of methods for objectifying the functional state of the craniocerebral system in patients with concomitant craniocerebral trauma in the acute period of pathology according to digital electroencephalograms.

Planned volume of production of science-intensive products:

In the course of the project, a prototype of a computer system will be developed for functional diagnostics of the state of the brain and vital functions of a person with combined craniocerebral trauma.

# DYNAMICS OF DEVELOPMENT OF LUNG ENDOCRINE STRUCTURES IN EMBRYOGENESIS AND PATHOLOGY

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**Aim:** To identify in the comparative aspect, the features of the structure of the endocrine apparatus of the lungs during embryogenesis, as well as in pathology caused by inflammatory and tumor processes.

Materials and methods: Material and research methods. We have studied histological preparations of the lungs in human fetus at 9-28 weeks of intrauterine development and full-term newborns. A comparative study of histological preparations of children who died from respiratory diseases at the age of 7 months to 2 years was carried out. Children died from acute inflammatory diseases of the respiratory system (acute bronchitis, polysegmental bronchopneumonia, septic pneumonia). The obtained data was compared with the results of the study of the morphofunctional state of the APUD-system cells of the lungs in oncological patients (surgical and sectional material) Histological preparations of unaffected tumors of lung sites were investigated. To obtain histopreparations, pieces of the organ were fixed by immersion in Buen solution. After washing and dehydration, they were embedded in paraffin wax. Paraffin sections are stained with hematoxylin and eosin, and are also impregnated with silver nitrate according to the Grimelius method to identify argyrophilic endocrine cells.

**Results**: In the lungs in fetus 9-10 weeks of development of endocrine cells in the bronchi epithelium and in epithelial tubes are not detected. Starting from 11 weeks, arginic apidocytes are revealed in large bronchos. The same state is observed in histopreparations of fetus in 12 -13 weeks of development. Cartilaginous plates are contained only in the walls of the lobar and segmental bronchi. Apidocytes and NEB (neuroepithelial bodies) are found in all children with inflammatory lung diseases. Open type apudocytes are more common. The number of them is much larger than in the lungs in children who have died from diseases that are not related to respiratoSECTION #2: TOPICAL ISSUES OF MATERNITY AND CHILDHOOD PROTECTION

ry illness. The largest number of apidocytes was found in lung cancer in a peripocal body tumor. The cells are usually round or oval in shape. They sometimes occupy a significant part of the bronchus. In the lungs of oncological patients with extrapulmonary localization of the tumor, apidocytes are very rare. NET in these cases cannot be detected.

**Conclusions:** Our comparative study of the cellular composition of the endocrine apparatus of the lungs during its morphogenesis and maladaptive remodeling made it possible to reveal some general patterns. We have found that open apidocytes during the development of the lungs appear in large bronchi, i.e., earlier generations of respiratory tract. Closed apidocytes are more characteristic of newly formed bronchial tubes. During the development of the lungs, NEB appear later than apidocytes and there are also more of them in the developing small bronchi and respiratory tract. There is an increase in the number of apidocytes and NEB in lungs that lesioned by pneumonia. Closed cells predominate among

apidocytes. Also, NEB appear, which are normally not detected after birth. Severe hyperplasia of apidocytes occurs during a tumor process in the lungs.

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### PREGNANCY, CHILDBIRTH AND THE CONDITION OF NEWBORNS AFTER COVID-19

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**Resume:** The novel coronavirus infection (COVID-19) has caused a global public health emergency. The spread of the virus was so lightning-fast that even countries with a high development of medicine found it difficult to fight coronavirus infection.

During the pandemic, there were many studies in the general population, but there were very few results about pregnancy outcomes associated with COVID-19. The WHO report says that patients with coronavirus infection with concomitant diseases have higher risks for adverse pregnancy outcomes. Based on this, it was interesting for us to study the impact of COVID-19 on the course of pregnancy and perinatal outcomes.

**Objective:** To study the effect of coronavirus infection on pregnancy and perinatal outcomes in women who underwent COVID-19 in the first half of pregnancy. **Materials and methods:** a retrospective analytical study conducted in the maternity complex of the multidisciplinary clinic of the Tashkent Medical Academy.

The age of the examined pregnant women was 18-35 years old. The study included pregnant women who underwent COVID-19 before the 20th week of gestation. All patients were divided into 3 groups: the first group included 44 women who had undergone COVID-19 up to 12 weeks; the second group included 32 women who underwent COVID-19 from 12 to 20 weeks of pregnancy; the third is a control group of 45 healthy women who did not undergo COVID-19 during pregnancy. In the surveyed groups, chronic diseases were identified, such as anemia - (82) 67.7%, urinary tract infections - (35) 28.9%. In (31) 25.6% of women, pregnancy was complicated by gestational hypertension and in (5) 4.13% - by preeclampsia.

The studies were conducted from November 1, 2020 to January 30, 2021. It was also interesting for us to study the ways of infection with COVID-19. Among those surveyed, (58) 76.31% of patients reported contact with patients diagnosed with coronavirus infection, which is due to the high contagiousness of the virus.

In the course of the COVID-19 disease, (15) 19.7% of patients had an asymptomatic form, (49) 64.5% had a mild form and (12) 15.8% had a moderate disease.

Treatment of COVID-19 infection was carried out on an inpatient basis in (17) 22.39% and in (59) 77.63% on an outpatient basis. In the hospital, treatment was carried out according to the National Protocol for the Management of Patients with Coronavirus Infection. On an outpatient basis, only (16) 27.1% of patients received treatment as prescribed by a doctor, (28) 47.45% of women took medications without consulting a doctor. It was also found that among pregnant women who did not have any complaints and symptoms, in (15) 25.45% of patients IgG (COVID-19) was detected in the blood in regular tests, which indicates an asymptomatic form of the disease.

**Results:** Based on the study of the course of pregnancy in the patients we examined, it was revealed that every third woman in the first and second groups had a violation of the uteroplacental-fetal circulation, compared with the control group where this complication was found in every fourth. Apparently, this is due to the increased level of fibrinogen, i.e. - hyper-coagulability in the blood after a previous infection with COVID-19.

Infection with COVID-19 before 12 weeks of pregnancy leads to spontaneous abortion in 15.9% of women, while infection at a gestational age of 12-20 weeks is complicated by its termination in 9.37% of women. It should be noted the aggressive effect of the COVID-19 virus on the fetus, which was confirmed in the detection of fetal malformations in 9.1% in the first group and in 3.1% in the second group of

women. Antenatal fetal death was also revealed in 6.82% of women who underwent COVID-19 before 12 weeks of pregnancy. Consequently, infection with COVID-19 in early pregnancy is more detrimental to the condition of the fetus.

However, coronavirus infection does not affect the incidence of ectopic pregnancy and the threat of premature birth. They were observed in all groups of women with almost the same indicators.

Noteworthy is the fact that in newborns from mothers who had coronavirus infection up to 12 weeks, fetal growth retardation syndrome was observed three times more compared with the healthy group and twice as much as in the second group. When assessing the condition of newborns at birth according to the APGAR scale, complications in the form of asphyxia of newborns of moderate and severe degree were not identified.

#### **Conclusions:**

1. It has been established that the course of pregnancy in women who have undergone COVID-19 before 12 weeks of gestation is complicated by spontaneous miscarriage, the development of fetal malformations, antenatal fetal death, and every third has a violation of the uteroplacental-fetal circulation.

2. It was revealed that infection with COVID-19 infection in earlier stages of pregnancy leads to the development of fetal growth retardation syndrome in newborns.

Since pregnancy and childbirth in our region remains high enough, we continue our research to study the impact of COVID-19 infection on pregnancy, childbirth and the condition of newborns to develop their management tactics.

**Key words:** COVID-19 infection, impaired uteroplacental-fetal circulation, spontaneous miscarriage, fetal malformations, antenatal fetal death, fetal growth retardation syndrome.

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# DIAGNOSTIC VALUE OF CA-125, HE-4 AND ROMA INDEX IN DIAGNOSING OF OVARIAN CANCER IN PRE- AND POSTMENOPAUSAL WOMEN

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ctuality: Ovarian tumors involve a Awide range of neoplasms, from innocuous benign tumors to aggressive cancers and they are considered one of the hardest to diagnose diseases in gynecological pathology, often being referred as the silent killer. This "name" was attributed because of the lack of precursor lesions and a specific set of symptoms, the disease being diagnosed in most cases during a routine examination and even then in a late stage. The correct preoperative diagnosis of cancer is essential, as it allows a prompt referral to a center, where the operations are performed by gynecologic oncologists. In ovarian cancer, effective and correct primary surgery is the most important prognostic factor. On the other hand, conservative follow-up may be sufficient for benign tumors. A high risk of disease can be found in women who have never been married. This can be explained through the argument that unmarried women carry the same risk as married women who have never procreated. Worldwide age distribution shows that most cases affect women between the ages of 45 and 74, this being an argument for the high risk in women who have reached menopause.

**Aim:** To estimate the predictive value of measuring CA-125, HE-4, and Risk of Malignancy Algorithm (ROMA) in the diagnosis of ovarian malignant tumors in preand postmenopausal women at the stage of preoperative examination.

Materials and Method: A retrospective study was conducted, which included 50 pre- and postmenopausal patients . The case histories of patients who received treatment at the Tashkent city branch of Republican specialized scientific-practical medical center of oncology and radiology in the period from 2018 to 2021 were studied. CA125, HE4, ROMA were determined in patients with ovarian cancer and benign tumors. CA125, HE4 cut offs were 35 U/ml and 70 pM, respectively. ROMA algorithm cut off was 11.4 % and 29.9 % for pre-menopausal or post-menopausal women, respectively.

Results: In this study, serum level of CA125, HE4 and ROMA were higher in patients with ovarian cancer than benign tumors (P < 0.001). CA-125 was 2.7-120 U/ mL and 5.33-158.2 U/mL in pre- and postmenopausal women with benign ovarian tumors, respectively, then 10-393.7 U/mL and 27.3-993.22 U/mL in pre- and postmenopausal women with malignant ovarian tumors, respectively (p = 0.001). HE-4 was 3.17-68.93 pmol/L and 11.9-206.1 pmol/L in pre- and postmenopausal women with benign ovarian tumors, respectively, then 22-221.6 pmol/L and 74 -764.06 pmol/L in pre- and postmenopausal women with malignant ovarian tumors, respectively (p = 0.082). ROMA was 0.3-15.4 % and 1.2 - 55.5 % in pre- and postmenopausal women with benign ovarian tumors, respectively, then 1.1 -96.5 % and 10.9 -98.6 % in pre- and postmenopausal women with malignant ovarian tumors (p = 0.001). In this study the sensitivity of CA-125 and HE-4 measurement, and ROMA

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in postmenopausal women was 75%, 25% and 75%, respectively, and the specificity of these three parameters was 100%.

**Conclusion:** The median CA125, HE4 and ROMA serum levels didn't differ significantly only between benign and malignant cases, but also between pre- and postmenopausal women. Measurement of HE4 and ROMA increased the detection of malignant diseases compared with CA125 alone. Although the study demonstrated the high sensitivity of CA-125 measurement, and ROMA as diagnostic markers and the high specificity of CA-125 and HE-4 measurement, and ROMA, It should be a choice method of diagnosis for postmenopausal women who has III-IV stage ovarian malignancy.

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### SECTION #3: TOPICAL ISSUES OF SURGERY

### EXPERIENCE OF DIALYSIS PATIENTS WAITING FOR KIDNEY TRANSPLANTATION

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**Background:** End stage renal disease diminishes the kidney functioning, therefor, patient's survival is highly dependent on renal replacement therapy, dialysis. However, kidney transplant proves to be a long-term solution. Due to the increase in Kidney transplant demand, and a low availability of donors, it has significantly elongated the waiting period, impacting the experience of dialysis patients waiting for kidney transplant.

**Aim:** The research aimed at underlining the experiences of dialysis patients waiting for kidney transplant and the purpose was to examine the ways dialysis nurses could reinforce the experiences of patients waiting for transplantation.

**Materials and methods:** The method utilized was literature review analysis. A total of seven articles were chosen from three different databases; CINAHL, PubMed and google scholar. Content analysis of the original data was upheld to provide the understanding of dialysis patient's experience during the waiting period. **Results and conclusion:** The main categories identified are poor quality of life, support, hope, uncertainty and lack of trust, coping strategies, and preparation for the transplantation. The results have provided a comprehensive analysis of patient's experiences, eliciting the requirement of more support towards dialysis patients predominantly those combating the psychological challenges, the necessity of patients ' education and continuous provision of information concerning the transplant would ease the burden and uncertainty of the waiting period.

**Limitation and further research:** The research recognize the limitations of this study, hence recommending future research on patients experiences in individual countries and regions, which will provide effective solutions to regional specified problems.

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# THE FIRST EXPERIENCE OF LAPAROSCOPIC GASTRIC RESECTION IN COMPLICATED FORMS OF GASTRODUODENAL ULCERS

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In our clinic, we performed laparoscopic gastric resection (LVG) for complications of gastric ulcer and duodenal ulcer and would like to share our first experience.

**Materials and research.** Patient H. D. 26 years. №DH 108. The patient came to our clinic on 01/05/2021 with the following complaints of digestion: nausea and pain in the epigastric region, pain, especially at night, aggravated on an empty stomach, bloating, food stagnation in the epigastric region after eating and a feeling of relief after vomiting, loss weight, heartburn and belching with the smell of rotten eggs. According to the patient, the ulcer history is 7 years old, and recently the above com-

plaints have intensified. When contacting a polyclinic at the place of residence, a study of EGDFS was carried out. An ulcer and its subcompensated stenosis were found in the conductive part. The patient repeatedly received conservative antiulcer drugs in inpatient conditions. On examination in the admission department: the condition is moderate, thin, the tongue is clean and moist. The skin is of normal color, clean, the turgor of the skin is slightly reduced. The mucous membranes of the mouth and pharynx are pale pink. The tongue is clean, moist, with a white coating. Peripheral lymph nodes are not enlarged. Body temperature - 36.8. Chest breathing normally

and symmetrically participates in the process of lung excursion. On auscultation - vesicular breathing, no wheezing. The number of breaths is 16 times per minute. The heart sounds are muffled, the rhythm is correct. Blood pressure -110/70 mm Hg. Art., pulse 77 beats per minute. Locally: the abdomen is of the correct shape, symmetrical, participates in respiratory movements, painless on palpation. Peritoneal symptoms are negative. The liver and spleen did not protrude from the chest. During auscultation, intestinal motility is heard, defecation is independent. EGDFS: Conclusion: subcompensated stenosis of the conductive part. Contrast radiography of the gastrointestinal tract: Conclusion: Pyloric stenosis, subcompensated stage. On January 12, 2021, the patient underwent a planned operation. Under general anesthesia, 2 cm above the navel, and on the right, the trocar was inserted into the abdominal cavity along with the optics. Laparoscopy began with a revision of the abdominal organs: the stomach sharply increased and expanded, peristalsis sharply slowed down. During the subsequent revision, no further pathologies were revealed. After the revision, it was decided to perform a laparoscopic gastric resection according to Billroth 2. The second trocar was located 5 cm below the right rib along the mid-subclavian line, and the third trocar was located between the first and second trocars. Subsequent working instruments were used 6–7 cm below the left costal arch along the mid-subclavian line, and the fifth trocar was placed between the fourth trocar and the optics. Using an ultrasonic dissector (Sonosurgeon), the abdomen was mobilized along the major and minor curves. with the incision starting at the inferior angle of the major arch. Mobilization was separated up to 3/2 of the stomach, up to the hepatoduodenal ligament. During the separation, it is determined that the ulcer has formed a tight adherence to the head of the pancreas. In case of technical difficulties within the framework of a planned resection, the stomach was completely separated. The left gastric artery was severed after being connected with clips. This type of delamination was separated by a small curve. Upon completion of mobilization, the pyloric section was lifted with an atraumatic forceps and a stapler was placed in the proximal end of the duodenum 12 under the pylorus in the transverse direction through the third trocar. The Endo GIA was inserted through a fifth trocar inserted into the abdominal cavity below the left rib, with which 2/3 of the stomach was excised along the greater curvature of the right gastric artery. A passageway was formed along the transverse mesentery of the colon. With the help of Endo GIA-45 sutures, a circular gastrenteroanastamosis with a diameter of 2.5-3.0 cm was formed, the edges were additionally sutured with vicryl threads using an endoscopic needle holder. The small intestine was separated from the Treitz ligament by dissection. The resected section of the stomach was removed through the fifth trocar (12 mm).

**Results:** In the postoperative period, the patient was admitted to the intensive care unit, and the next day after the operation, he was transferred to the abdominal surgery department. The patient was prescribed standard ward treatment. Locally: the postoperative wound is clean and dry. Serous hemorrhagic fluid was separated from the drainage tube. The patient is active for 4 days, does not complain. The patient underwent repeated EGDFS after 5 days, there are no signs of anastomotic leakage. The patient was discharged for outpatient treatment in satisfactory condition on the 6th day.

**Output:** Laparoscopic gastric resection undoubtedly proves that it is with fewer complications than open surgery, and early elimination of subjective symptoms of the disease in patients. Laparoscopic gastric resection requires improvement of its technical characteristics, development of modifications to prevent subsequent complications in the digestive system.

### **COGNITIVE DYSFUNCTION AFTER MULTIPLE OPERATIONS**

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**Relevance.** One of the most common clinical syndromes of postoperative encephalopathy is postoperative cognitive dysfunction (PCD). At the same time, to date, there are practically no indisputable data on the frequency of development of the PCD after multiple operations [1].

**The purpose of the study:** reveal the frequency and severity of the PCD after multiple operations in patients with different surgical pathology conducted under conditions of multicomponent general anesthesia.

**Material and methods:** The study was conducted in surgical departments on the basis of the Bukhara Regional Multidisciplinary Medical Center in the period 2018-2021. Operational intervention was carried out under conditions of general multicomponent anesthesia with artificial ventilation of the lungs. To achieve a given goal, we conducted a study of cognitive function in patients with different surgical pathology before surgery and 3.5 days after surgery.

Testing of cognitive functions was carried out in observed 269 (women 145, men 124) patients aged from 20 to 59 years old. And 176 patients were after one and 93 patients after multiple operations. 22 patients for one year suffered 2 operations, 34 patients for 2 years 3 operations, 26 patients for 3 years 4 operations, 13 patients for 5 years more than 6 operations.

**Results and discussion:** When evaluating cognitive functions in the postoperative

period, the patients verified to deteriorate the results of the test from the "10 words" at least 20% compared with the source data. Of the 176 patients, after one operation, the PCD was noted in 83 patients, which is 47.1%. Of the 93 patients, after multiple operations, PCD was noted in 76 patients, which is 81.6%. The clinical picture of early twice in the patients observed by us after repeated operations was characterized by a more pronounced decrease in the stability of attention, the pace and the volume of short-term memory, intellectual lability compared to patients undergoing one operation. If the deterioration of the results of the test "10 words" after one operations amounted to 30-40%, and after multiple operations 60-70%, respectively. Before discovering from the hospital, a reduction in short-term memory was diagnosed in patients after one operation in 29%, and after multiple operations in 78% of patients.

Thus, the total multiple anesthesia as a factor has a significant negative impact on the state of cognitive functions.

**Conclusions:** Studies made it possible to identify more frequent occurrence and prevalence of early rest in patients after multiple operations.

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# RADIOLOGICAL IMAGING OF THE RECURRENT CERVICAL CANCER AFTER SURGICAL TERATMENT

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The aim of the research is to study the possibilities of the radiological methods in revealing the recurrent cervical cancer.

*Materials and methods.* The study included 40 patients with cervical cancer who received chemo-radiotherapy and sur-

gical procedure in the Republic specialized scientific and practical medical center of oncology and radiology. Transabdominal echography(TAEG) was performed to all patients on the device "SONOSCAPE S22" and magnetic resonance imaging 1.5T.

Results. In according to the data of TAEG recurrence of the cervical cancer was detected in 33 patients (82.5%) - in 24 (72.7%) it looked like node with clear contours, rounded or polygonal form predominantly solid structure and localized in the vagina stump. In other patients (27.3%) - a mass with unclear contours, irregular shape, localized both in the stump and in the area parametrium. In some cases echographic visualization of specific infiltration of parameters was difficult due to a number of reasons (obesity, post-operative adhesions, inflammation). MRI was performed by performing post T2 and T1 weighted images(T1WI and T2WI) in sagittal and axial projections, and if there was suspect to an infiltration in parametrium according to TAEG data, T1WI with fat suppression was also performed. Specific parametrial infiltration on T2WI had the appearance of a node more often elongated chick-shaped, creeping along the vessels of the pelvis, having a signal of increased intensity. The information content of the method is significantly increased with the introduction of contrast, tropic to tumor tissue in combination with an effective fat suppression regime. The signal from adipose tissue significantly decreased on T1WI, while the tumor was accumulating contrast, becoming bright, hyperintense. This increased precision and specificity of diagnostics and allowed to adequately assess not only the size of the node, but also its connection with the surrounding tissues and structures. In 5 patients with cervical cancer the recurrent node in the region of the parametrium was identified only by MRI data, and

in 8 patients – growing to adjacent organs (rectum, bladder).

It should be noted that in the study, TAEG and MRI data in the assessment of lesions the iliac lymph nodes were comparable to each other. Echographically the defeat of the nodes was determined in the form of a lower echogenicity of nodes, violation of their cortical layer and gate of the node, increased blood flow with dopplerography both in the capsule and in the stroma node. The above changes are also sufficient were clearly identified by MRI on T2WI.

#### Conclusions

The main screening method for local recurrence CC is - echography. In case of doubtful TAEG data MRI with contrast will be required. Better visualization of nodal shapes lesion is achieved on T2WI in the sagittal projection, but specific infiltration parameters on T1WI with contrast. Infiltration of adjacent organs is assessed on T2WI.

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# NEW METHODS OF SURGICAL TREATMENT OF RECURRENT SHOULDER DISLOCATION

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A im of the study is to decrease surgical trauma of affected shoulder, to improve the tone of the shoulder joint capsule, and to preserve the anatomical integrity of the subscapularis muscle with improvement of the motor function of the shoulder joint. **Materials and methods.** We conducted surgical treatment of 55 patients, military servants, from Tashkent city and Qarshi city during 2019-2020. Surgical method was developed by authors and has authorship rights which will be obtained till the end of 2021. All patients were male and the average age was 33 years old. Medium duration of bed-stay at a military hospital composed 7 days.

The proposed method should be performed in next way: skin of a patient, with a recurrent dislocation of the shoulder joint, after general anesthesia should be incised along the anterior surface of the shoulder joint, which passes between the large and small tubercles of the humerus. The tendons of the long head of the biceps muscle are exposed, then the intersulcular groove of the humerus should be exposed. The subscapularis muscle should be cut off from the place of its attachment to the small tubercle of the humerus, after which arthrotomy of the shoulder joint should be performed from the place of its attachment to the anatomical neck of the humerus. The cut edge of the shoulder joint capsule should be sutured with lavsan threads to the small tubercle of the humerus, thereby increasing the tone of the joint capsule and suturing the capsule defect. The cut edge of the subscapularis muscle should be fixed to the large tubercle of the humerus. The exposed tendon of the long head of the biceps muscle should be fixed to the tendon part of the subscapularis muscle.

**Results.** All patients undergone surgical treatment with the proposed method, by making incision in the skin along the anterior surface of the shoulder joint, which passes between the greater and lesser tu-

bercles of the humerus. The tendons of the long head of the biceps muscle were exposed, then the place of the intertubercular groove of the humerus was exposed. The subscapularis muscle was cut off from the place of its attachment to the lesser tubercle, and then arthrotomy of the shoulder joint was performed from the place of its attachment to the anatomical neck of the humerus. The cut off part of the shoulder joint capsule was sutured to the small tubercle of the humerus, thereby closing the capsule defect. The cut off part of the subscapularis muscle was fixed to the large tubercle of the humerus, and the exposed tendon of the long head of the biceps muscle was fixed to the tendon part of the subscapularis muscle.

The shoulder joint was immobilized with an abduction splint and a plaster cast was applied to all patients' shoulder. All patients were prescribed broad-spectrum antibacterial agents for 5 days, anticoagulants according to the scheme and agents that improve microcirculation. The plaster cast was removed after 3 weeks. All results were satisfactory.

**Conclusion.** Thus, the proposed method has a novelty, has less surgical trauma to an affected shoulder and causes less complications. The method and can be used in practical medicine for the treatment of recurrent shoulder dislocation.

# ILIOCEKAL INVAGINATION OF SMALL INTESTINAL CULTURE, AFTER OPERATION, RESECTION OF SMALL INTESTINE

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**Aim:** demonstration of a rare case such as iliokekal intussusception of the small intestine stump, after surgery, resection of the small intestine.

**Materials and methods:** The research based on clinical case. The course of the operation and further methods and the outcome of rehabilitation are described.

**Results:** Patient D., born in 1968, was admitted with complaints of ileostomy, cramping pains around the navel, epigastric region, right abdomen, nausea, stool and gas not passing through the ileostomy. From the anamnesis, the patient 6 months ago underwent the operation "Resection of the small intestine, the imposition of an iliostomy" for Crohn's disease complicated by perforation of the small intestine. After the examination according to the standard, the patient was taken for an emergency operation. After opening and revision of the abdominal cavity, the cause of intestinal obstruction was the adhesion between the anterior abdominal wall of the pelvic region and the loop of the small intestine, where the knee is formed. The adhesion squeezed the loops of the small intestine. With further revision, it was found that intussusception of the small intestine discharge loop through the Baugin's valve into the lumen of the cecum, where signs of intussusception of the small intestine into the lumen of the large intestine are noted. Disinvagination of the small intestine stump was performed. In this case, necrosis of 1/3 of the invaginate is noted, the total length of the invaginate is 50 cm. The small intestine was resected proximally, leaving the healthy part of the intestine. The enteroenteroanastamosis is imposed side to side.

**Conclusions:** One of the rare causes of acute intestinal obstruction is intussusception. According to different authors, the frequency of this type of obstruction ranges from 0.3 to 8.2%. In adults, idiopathic intussusception occurs much less frequently than in children - in 6.6-15% of cases. The average age of patients is 54–64 years. The most common cause of intussusception in adults is benign and malignant tumors, according to some authors - up to 63% of all intussusceptions in adults. Intussusception

of the small intestine after operations on the abdominal organs occurs in 1-5% of cases. This case of intussusception of the blind end of the abduction loop caused the patient to have an acute abduction loop syndrome of the small intestine. No similar published cases have been found in the domestic and foreign Literature.

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### COMPARISON OF CT AND MRI IN DIAGNOSIS OF SPINAL TRAUMA

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**Introduction:** In recent years cases of patients with spinal traumas have become more frequent. The majority of such traumas are the result of traffic accidents, domestic and sports injuries. Injuries in this region can lead to neurological defects, sometimes severe and even fatal<sup>[1]</sup>. Medical imaging plays a crucial role in accurate diagnosis of this trauma<sup>[2]</sup>. But opinions about the most optimal method of imaging in this pathology differs between various studies.

**Objective of the study:** To compare the possibilities of CT and MRI in the diagnosis of spinal trauma.

**Material and methods:** 81 people, who were inpatient in the Republican Specialized Scientific and Practical Medical Center of Neurosurgery and the 3<sup>rd</sup> clinic of Tashkent Medical Academy from November 2019 to November 2020 were examined. Imaging was performed using spiral computer tomography MX16EVOCT ("Philips", Netherlands) and magnetic resonance tomography Philips Ingenia 1,5T.

**Results:** From 81 patients, 38 patients (I group, 47%) had pathology on both CT and MRI; 23 patients (II group, 28%) had pathology on MRI only; 20 patients (III group, 25%) had no pathology on either CT or MRI. Patients from I group had bone injuries of vertebral column on CT, on MRI in addition to bone injuries, traumatic hernias and traumas in the ligament apparatus of the spine were found. Patients from this group had a surgical stabilization of the spine. Patients from II group on MRI had a T2 hyperintensive signal in the traumatized region of spinal cord, which indicated spinal cord damage, but CT showed no clear fracture or signs of spinal instability. Subsequently, patients from this

group underwent surgical decompression of the spinal cord due to spinal canal stenosis and compression from hematoma. Patients from III group had a negative picture on both CT and MRI and they were under observation and subsequently have been discharged.

**Conclusions:** Given the severity of injury, CT is the method of choice for emergency diagnosis. It is also the most cost-effective method. Bone anatomy is better visualized with a CT scan, but the damage to the spinal cord and other soft tissue structures of the spine is best visualized using MRI. In traumatized patients, spinal cord lesions are of serious concern. MRI should be performed when spinal cord injury is suspected, as it is more sensitive in assessing soft tissue and spinal cord injuries than any other method<sup>[3]</sup>. Therefore, it is recommended to use both CT and MRI in the assessment of spinal trauma.

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### COMPARATIVE ASSESSMENT OF THE EFFICIENCY OF HEMOSTASIS METHODS AFTER LAPAROSCOPIC CHOLECYSTECTOMY

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Delevance: Every year around 2.5 mil-Lion operations on the gallbladder and bile ducts are performed in the world. Among them, the proportion of minimally invasive interventions, including laparoscopic cholecystectomies (LChE), is increasing. The increase in the number of surgical interventions for cholecystitis and its complications led to a significant increase in the incidence of postoperative complications. During laparoscopic operations, especially in emergency surgery, situations often arise when it is difficult to achieve reliable hemostasis in the gallbladder bed [1]. Therefore, today there is an urgent need for reliable means of local hemostasis and adhesive substances that could be used in laparoscopic surgery [2]. It can be expected that the use of careful intraoperative hemostasis to reduce the risk of bleeding will bring enormous clinical and cost effectiveness [3].

*Aim:* To study the effectiveness of using various methods of hemostasis after laparoscopic cholecystectomy.

*Material and methods:* The results of observation of 107 patients operated on for acute cholecystitis are presented. The main group included 37 patients in whom LChE was completed with hemostasis of the gallbladder bed using the "Hemogubka" preparation. The control group consisted of 56 patients in whom LChE was performed using high-frequency electrocoagulation to treat the gallbladder bed. The comparison group consisted of 14 patients in whom the hemostatic sponge "SPONGOSTAN<sup>™</sup> STANDART" Distributed by ETHICON<sup>™</sup> USA (Ferrosan Medical Devices, Soeborg, Denmark) was used for the purpose of hemostasis of the gallbladder bed.

**Results:** In the control group, the performance of LChE was complicated by "burning" of coagulated tissues to the working surface of the electrosurgical instrument, which led to a drop in the power of the coagulator, which reduced the effectiveness of the action and was accompanied by subsequent detachment of the coagulation scab and renewal of bleeding. The use of "Hemogubka" to stop bleeding from the gallbladder bed made it possible to effectively solve this problem with LChE. The duration of the operation with the use of high-frequency energy was on average 72.8  $\pm$  14.8 minutes, and

with the using of "Hemogubka" -  $61.2 \pm 4.8$  minutes, and in the comparison group it was  $63.6 \pm 9.3$  minutes. In the main group, the above-mentioned intraoperative complications were not observed for a known reason, namely, in connection with the use of "Hemogubka" to stop bleeding from the gall-bladder bed, as well as the absence of thermal damage to the surrounding tissues.

**Conclusions:** Thus, the use of "Hemogubka" in the course of LChE has a number of advantages over the use of high-frequency electric power and the use of the SPONGOSTAN<sup>™</sup> STANDART preparation: a high degree of "Hemogubka" adhesion to the gallbladder bed, instant stopping of bleeding, complete absence of tissue damage, except for damage to the deep vessels and bile ducts. The hemostatic sponge "Hemogubka" can significantly reduce the total duration of surgery, reduce the number of intraoperative complications and avoid the development of postoperative complications.

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# FEATURES OF MICROSURGICAL REMOVAL OF EXTRAMEDULLARY NEOPLASMS OF THE SPINAL CORD

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Spinal cord tumors consists 10-15% of CNS tumors. Depending on the localization, spinal tumors are usually divided into: extradural - 50-60%, intradural extramedullary - 30-40%, intramedullary-5-10%. Most spinal tumors belong to the group of intradural extramedular tumors, growing, as a rule, from one tumor node. There are observations of rare cases of multiple spinal tumors (2-3%) and a combination of spinal tumors with intracranial ones.

*Aim:* To characterize the features of microsurgical removal of extramedullary spinal cord tumors with microscopic assistance and intraoperative neuromonitoring.

*Materials and methods:* In 2019-2021, in the Republican Specialized Scientific and Practical Medical Center of Neurosurgery operated on 46 patients (18 men and 28 women) aged 18-55 years with the diagnosis of "extarmedullary neoplasm of the spinal cord". All patients underwent neurological, neuroimaging examinations, spinal tractography. The results of surgical treatment were assessed as good, satisfacto-

ry and unsatisfactory. Before the operation, neurological deficits were detected in all patients in the form of segmental and conduction disorders. All patients underwent microsurgical removal of extramedullary spinal cord tumors using microscopic assistance (Karl Zeiss OPMI VARIO) and intraoperative neuromonitoring from posterior hemilaminectomy and laminectomy access with maximum preservation of the anatomical structures of the posterior column of the operated segment of the spine. At the same time, hemilaminectomy was performed in 19 patients and the rest - sparing laminectomy, respectively (with minimal blood loss and minimal intraoperative trauma to the spinal cord and its roots).

**Results:** The neurological picture depended on the stage of growth of the spinal cord tumor. 17 patients came to our clinic in the root stage of tumor growth, 24 patients - compression of half the diameter of the spinal cord (Brown-Sekar syndrome) and 5 patients – complete violation of the spinal cord conduction. Neurological symptoms among the operated patients were

root pain syndromes in 17 patients and in the remaining patients both segmental and conduction disorders in the form of paresis of the extremities, pelvic organ function disorders and sensory disorders (among them, 5 patients had a complete violation of spinal cord conduction). In the clinical picture, compression root syndromes were the most signs. The short-term outcome of the operation in patients with radicular stage and Brown-Sekar syndrome was assessed as good and excellent. After 6 months after surgical treatment, the results in this category of patients were determined as satisfactory and good, all patients lead an active lifestyle. 3 out of 5 patients with a complete violation of the spinal cord conduction had a poor result (later a long complex of rehabilitation measures was required), 2 patients had a satisfactory result.

*Conclusions:* Microsurgical removal of extramedullary spinal cord tumors with microscopic assistance and intraoperative neuromonitoring, as well as with a minimum size of the wound volume, maximum preservation of the anatomical structures of

the spine, intraoperative minimal blood loss, minimal intraoperative spinal cord traction leads to early activation of the patient with the restoration of neurological deficits, early return of patients to a normal lifestyle.

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### SECTION #4: TOPICAL ISSUES OF PUBLIC HEALTH AND PREVENTION OF DISEASES

### THE FOOD ALLERGIES IS A GLOBAL PROBLEM OF PUBLIC HEALTH

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**Delevance:** Today, the widespread **A** prevalence (from 30-60% in the population) of allergic diseases has turned allergy into a global medical and social problem. At this time, every third person in the world suffers from allergic diseases. According to the data carried out in our Republic, among patients with allergic diseases, every tenth (9.6%) patient has a food allergy. According to the State Committee on Statistics of the Republic of Uzbekistan as of April 1, 2020, the population was 34,036,800 people, according to statistics, then about 11 million people suffer from one form or another of allergic diseases. Almost any food product can cause food allergies, but some foods are strong allergens and others have little sensitizing activity.

Among patients with allergic diseases (bronchial asthma, allergic rhinitis, food allergy, urticaria, atopic dermatitis), allergen-specific immunoglobulins E to tomato (F25) -22.4%, carrots (F31) -16.3%, potatoes (F35) wheat flour (F4), peas (F12), honey (F247) -14.2%, apricot (F152), orange (F33) -12.2%, watermelon F87 -10.2%, peach (F53), apples (F49), chicken (F83) -8.1%, walnut (F16) -6.1%, strawberries (F44), sunflower seeds (K84) -4.0%, peanuts (F13), milk (F2), egg white (F1), egg yolk (F75) -2.0%. At the moment, in the modern world, the problems associated with the diagnosis, therapy and prevention of allergic pathology remain very relevant. According to studies by domestic and foreign authors, about half of patients with food allergies have a burdened family or their own allergic history. Food allergy is, first of all, food intolerance, there are several reasons for its formation: early transfer of the child to artificial feeding; malnutrition of children; expressed in the discrepancy between the volume and ratio of food ingredients to the weight and age of the child, concomitant diseases of the gastrointestinal tract, diseases of the liver and biliary tract, etc., indiscriminate nutrition. Rare and frequent meals lead to a violation of gastric secretion, the development of gastritis, mucus hypersecretion and other disorders that provoke the formation of food allergies or pseudo-allergies. There is also a cross-allergic reaction, which arises as a result of increased sensitivity to allergens that are similar in structure, appears only, when the homologous nucleotide sequence increases by more than 50-70%. For example, the amino acids of plant food allergens are similar to plant pollen, so there can be cross-allergic reactions between them.

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# IDENTIFICATION OF LEADING HARMFUL INDUSTRIAL FACTORS OF ENGINEERING PRODUCTION

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**A** *im:* Uzbekistan is implementing a broad programme to create favourable working conditions, which requires a comprehensive assessment of the actual working conditions of workers in order to identify possible causes of the formation of harmful factors in the working environment [1, 2]

Materials and methods: We selected the "Aggregate Plant" of Tashkent, the technological process of which includes the procurement, mechanical, thermal, galvanic, assembly and painting workshops. The obtained laboratory data of noise and dust content in the air of the working zone were evaluated in accordance with State Standard 12.1.005-88 "General sanitary and hygienic requirements for the air of the working zone" and Sanitary rules and norms No. 0325-16 "Sanitary standards of permissible noise levels at workplaces." During the incandescence of parts, the heating microclimate is evaluated using Sanitary Rules and Norms No. 0324-16 "Sanitary and hygienic norms of the microclimate of production premises".

**Results:** Dust concentration exceeded MPC from 0.08 to 2.5 mg/m<sup>3</sup>. The noise level in the workshops depends on the type and technological condition of the equipment. During the operation of grinding machines, stable, average frequency noise is

observed within 86-91 dBA at an acceptable level of 80 dBA. Microclimatic conditions in the warm period of the year exceed the upper limits of permissible values. So, in the hot months of the warm period, the average air temperatures at workplaces reach 36.5-37 degrees Celsius, relative humidity - 30.5%, air velocity - 0.1 m/s.

*Conclusions:* Thus, to reduce the level of harmful factors of the machine-building enterprise, it is necessary to introduce automated, continuous and hermetic processes and equipment.

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#### **DEFINITION OF CLASS OF WORKING CONDITIONS OF CEMENT WORKS**

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*im:* Cement production is one of the **T**most important industries due to the wide use of cement, which uses various technological techniques from mechanized to completely manual labor with a characteristic increase in the specific gravity of various types of mental and nerve-stress labor [1]. The process of cement production is associated with the formation of a number of harmful and hazardous production factors, among which the presence of harmful substances in the air of the working zone, noise generation, the influence of an unfavorable industrial microclimate and thermal radiation, accompanied by the severity of labor that negatively affect the body of workers [2], which served as the purpose of this study.

*Materials and methods:* the object of the study was a cement plant, the object of the study was the air of the working zone.

The results of the chemical factor study were analyzed by aspiration method.

**Results:** Cement dust contains on average about 75% suspended particles SiO<sub>2</sub>, 15.8% -CaO, 6.4% - Al<sub>2</sub>O<sub>3</sub> and 2.8% - Fe<sub>2</sub>O<sub>3</sub>. Thus, the content of SiO<sub>2</sub> at workplaces in the workshops for crushing, drying and grinding raw materials, as well as burning and grinding cement, significantly exceeded the maximum permissible concentration (MPC) (1 mg/m<sup>3</sup>), averaging about 3.58 mg/m<sup>3</sup>, the actual content of Al<sub>2</sub>O<sub>3</sub> corresponded to 7.8 mg/m<sup>3</sup> at MPC 6 mg/m<sup>3</sup>, CaO - corresponded to MPC (1 mg/m<sup>3</sup>), concentration Al<sub>2</sub>O<sub>3</sub>.

*Conclusions:* In view of the above, it can be concluded that the working conditions of the cement plant employees in terms of the degree of harm and danger of the labor process in accordance with Sanitary rules and norms of the Republic of Uzbekistan No. 0141-03 belong to 3 harmful class of 2 degree (3.2), considering that at the same time two or more harmful substances are contained in the air of the working zone, the evaluation is carried out on the substance whose concentration corresponds to the highest class and degree of harmful substances.

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#### HYGIENIC WORKING CONDITIONS IN FURNITURE PRODUCTION

#### Seyfullaeva G.A.

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*Aim:* Introduction on furniture production of new equipment, technological processes of wood treatment and application of new types of paint coatings do not allow to completely exclude the effects of production factors on the body of workers [1, 2]. The purpose of this work was to assess the working conditions of furniture production. When studying the technological process at furniture production, it was determined that the main workshops are the procurement, assembly and paint workshops. In these production areas, noise, dust and gas content of the working zone air, elevated temperature and insufficient illumination are leading production and sanitary factors.

*Materials and methods:* To study working conditions, a sanitary survey was carried out, the technological process was studied and the main harmful factors were identified. With the help of laboratory instruments, measurements of factor levels were carried out and excess standards were estimated.

**Results:** was revealed: increased noise level during joint operation of equipment and machines in the procurement work-

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shop in the milling and grinding areas, which averaged 82 dBA (with a PDU of 80 dBA), high dust content of air at all workplaces, especially at the workplaces of grinders - 12.5 mg/m3 and sorters - 10.3 mg/m3, chemical air pollution of the paint shop with acetone, which exceeds the MPC by an average of 2 times, butyl ethyl acetate - 3 times, toluene and xylene - 2.5 times.

*Conclusions:* Comprehensive hygienic assessment of working conditions of the production environment of furniture production will allow developing a set of measures to improve working conditions, reduce the severity and tension of the labor process of the main professional groups of furniture production workers.

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#### EVALUATION OF THE ACTIVITIES OF MEDICAL NURSES AT DISABLED CHILDREN BOARDING SCHOOL

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**A** *ctuality:* According to the Ministry of Health of the Republic of Uzbekistan (2019), 800000 people with disabili-

ties are registered in the country, 200000 of them are children with disabilities [1]. Today disability is an important medical

and social problem in Uzbekistan. An indepth study of the prevalence, causes, and delays of disability will enable the development of comprehensive measures to address and reduce these problems. Nervous system and sensory organs diseases are the first, mental illness is the second, and congenital anomalies are the third [2,3] among the causes of childhood disabilities.

*Aim:* To evaluate a nursing care in the boarding school children with disabilities and to improve a medical care in future.

*Materials and methods:* A sociological survey was conducted among 40 nurses working in the boarding school Nº 2 for children with disabilities «Muruvvat», in Almazar district of Tashkent city. Their questionnaires were assessed by their level of medical knowledge and skills.

**Results:** The average of work experience of nurses was 6,6 years in this institution. In terms of qualification category (category), 37,5% of nurses do not have a category, 30% of nurses have a 2nd category, 30% of nurses have the 1st category, 0,5% of nurses have a higher category. In a survey of nurses, 60% of them said that they knew the bases of legislation of Health care and normative documents. 37.5% said that they knew it was satisfactory, and 2,5% said that they did not know it. 80% participants said that there were not equipped with computer in the workplace, while 20% said positively. When asked about barriers to work, 37,5% identified - low salaries,

30% - as excessive bureaucracy, 17,5% - as a lack of medical equipment, and 15% as a shortage of medical staff. that they know about the main causes of diseases (oligophrenia, Down's syndrome, microcephaly, hydrocephalus) and the degree of knowledge about their clinical manifestations in 42,5% nurses were determined, satisfactory-average knowledge in 52,5% nurses was determined, and 5% answers were unknown.

*Conclusions:* The survey showed that the prevalence of highest age of among nurses was 40-49 years (30%). An average 6,6 years of work experience over the years. Statistics on qualification category (category) are unsatisfactory (37,5% of nurses do not have a category). The supplying with computers in the workplace is unsatisfactory (80%).

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### EPIDEMIOLOGY OF MULTIPLE CHRONIC DISEASES IN THE FEMALE POPULATION OF CHILDBEARING AGE IN ANDIJAN

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Of interest was the study of epidemiology and aspects of the prevention of multiple chronic diseases (polypathies) in the populations of women of fertile age (FFW) in the Ferghana Valley of Uzbekistan, where research in this direction has been conducted since the 70s, some experience has been gained and great importance is attached to the quantitative combination of various non-communicable diseases and their risk factors. **The aim of the study** was to study the prevalence of the main multiple chronic non-communicable diseases (polypathies) among the unorganized population of women of fertile age in the city of Andijan in the Ferghana Valley.

#### **Materials and methods**

As the objects of the study, the districts of Andijan were selected, which, according to statistical indicators, met all the requirements of representativeness. A 10% representative sample of 15-49year - old women (1,598 people in the old part of the city and in the new district) was formed from the electoral lists of the old and new parts of the city ( the election campaign that preceded the start of the study) using random number tables, after verifying the addresses in the Central Address Bureau of Andijan and the Housing and Communal Services.

#### **Results and discussion**

One of the main objectives of our research, which we sought to solve, was to identify multiple pathologies in order to develop optimal approaches to the prevention of polypathies among VFS at the individual and population levels. Studies have shown that 86.3% of women have a chronic multiple organ pathology with a number of diseases of 2 or more (polypathies). Only 23.5% of VFS did not have chronic non-communicable diseases (CNS). 56.7% had one chronic non - infectious pathology, 84.8% - three, 57.9% - four, and 41.8% - all 5 CNS at the same time.

It was found that the prevalence of polypathies increases with the age group up to 20 years (43.0%), then with increasing age, the frequency of multiple chronic diseases increases linearly and statistically significantly, amounting to 76.2% in the age group 20 -29 years (P < 0.01), 94.7% in the age group up to 39 years (P < 0.01) and 98.6% in the age group 40 -49 years (P < 0.05). Most often, the examined women aged 15-49 years have 2 CNS (84.7%), followed by a combination of 5 CNS (41.8%), with approximately the same frequency registered in women with one and four CNS in 56.7% and 57.9% of cases, respectively.

At the age of co 20 years, only 4.4% of the examined patients did not have CNS. At least one CNS was detected in 10.5% of the examined patients, a combination of two CNS was observed in 12.3% of the examined patients, 3 CNS - in 7.9%, 4 CNS - in 5.3% and 5 CNS - in 2.6% of women.

Among women under the age of 29, only 7.8% of the examined patients did not have chronic multiple organ pathologies; at least one CNS was noted in 17.4%. A combination of two or more chronic multiple organ pathologies was found in half of the examined patients - in 50.9%. In 12.3% of women, one chronic pathology was detected, in 15.7% - three, in 10.7% - four, and in 3.6% - all 5 CNS at the same time.

In the age group up to 39 years, 94.7% of women have polypathies with the number of diseases 2 or more. Among them, only 11.3% of women did not have CNS, 21.4% had one CNS, 26.0% had 2 CNS, 21.4% had three, 13.8% had four, and 6.7% had all 5 CNS at the same time. A combination of two or more chronic diseases is quite common (59.6%, P < 0.01).

According to our data, the highest frequency of polypathies is observed among women aged 40-49 years - 98.6%. In this group, only 0.3% of the examined patients had no analyzed pathologies. The examined patients have 1 CNZ - 4.7%, 2 CNZ - in 15.6%, 3 CNZ - in 19.9%, 4 CNZ-in 23.1% and 5 CNZ - in 35.0% of cases.

Such a picture of the epidemiological indicators of the incidence of polypathies and a linearly increasing population pyramid is most likely associated with the accumulation of certain risk factors, as well as physiological and pathological features occurring in the body of women with increasing age. In addition, with age, there is a decrease in the activity of the sympathoadrenal system, which is associated with the prevalence of certain CNS, and on the other hand, an increase in the frequency of polypathies can be associated with financial difficulties, problems with employment, poor nutrition, the presence of chronic infections of the female genital area, as well as with violations of the psychoemocyanal status as a result of frequent childbirth and pregnancy.

Of course, to identify the patterns of dependence of the prevalence of multiple chronic diseases on regional (endemic) risk factors, appropriate epidemiological studies are needed, which will largely help solve the current problems of reproductive health of the female population.

#### Conclusions

1. Among the female population of fertile age, there is a fairly high prevalence of multiple chronic diseases (polypathies). Almost half of the women have a combination of four or five chronic pathologies.

2. Intensive accumulation of chronic multiple organ pathologies with the number of diseases of two or more, bi-and polycausal risk factors occurs in the reproductive age of the female population. A peculiar "peak" of polypathies and various combinations of endogenous risk factors falls on the age groups of 30-39 and 40-49 years.

3. The proposed project of the epidemiological study of polypathies in the populations of VHF and their risk factors contributes to the development of optimal approaches to the prevention of multiple diseases at the individual and communal levels.

4. It seems appropriate to conduct epidemiological studies on a regular basis starting from early adolescence, and to carry out measures for the integrated prevention of polypathies on a regular basis and on a regular basis in various groups of women of childbearing age in large numbers with the forces of district doctors and GPOs, regional branches of the centers for "Health" and prevention of CNS.

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# ASSESSMENT OF RISK FACTORS FOR THE DEVELOPMENT OF CARDIOVASCULAR PATHOLOGY IN PATIENTS WITH CORONARY HEART DISEASE

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#### ntroduction

Cardiovascular diseases (CVDs) are the number 1 cause of death globally: more people die annually from CVDs than from any other cause. An estimated 17,9 million people died from CVDs in 2016, representing 31% of all global deaths. Of these deaths, 85% are due to heart attack and stroke. Most cardiovascular diseases can be prevented by addressing behavioural risk factors such as tobacco use, unhealthy diet and obesity, physical inactivity and harmful use of alcohol using population-wide strategies. People with cardiovascular disease or who are at high cardiovascular risk (due to the presence of one or more risk factors such as hypertension, diabetes, hyperlipidaemia or already established disease) need early detection and management using counselling and medicines, as appropriate.

#### Purpose

To study the main risk factors for the development of cardiovascular pathology in middle-aged and elderly patients with coronary heart disease.

#### Methods

The study involved 14 patients who were inpatient treatment in a multidis-

ciplinary clinic in the cardiology department. Of these, 8 (57,14%) were men and 6 (42,86%) were women. The age category of patients was from 55 to 75 years old. Middle-aged men prevailed - 6, elderly - 2. In all patients, the parameters of lipid, carbohydrate metabolism, ALT, AST, urea, creatinine, BMI, blood pressure, the presence of bad habits were assessed and the level of hypodynamia was assessed.

#### Results

Among hospitalized men, 8 (57,14%) patients were smokers. The average BMI of all examined patients was 34 kg. 10 patients (71,43%) had grade I obesity, 2 (14,28%) had grade II obesity. The mean office SBP values corresponded to  $135,71 \pm 0,29$  and office DBP 82,85  $\pm 0,15$ . The average values of the maximum SBP were 172,85  $\pm 0,15$ ; maximum DBP was 98,57  $\pm 0,43$ . 8 (57,14%) of the examined patients suffered from type 2 diabetes mellitus, and impaired glucose tolerance was observed in 1 (14,28%) patients. The average blood glucose level was 8,67 (5,0-14,9) mmol / L. In all hospitalized patients, lipid spectrum

indices were determined, at which the average values were equal: total cholesterol 186,57 (132 - 255) mg / dl; the triglyceride level was increased in all patients 326,28 (221 - 478) mg / dl; HDL cholesterol 36 (26 - 56) mg / dL; VLDL cholesterol 65,43 (44 - 96) mg / dL; LDL cholesterol 85,14 (48 - 123) mg / dL. The average values of the biochemical blood test were equal: ALT 31 (11-52) U / l; AST 24,14 (12 - 38) U / l; urea 5,87 (3,4 - 9,1) mmol / l; creatinine 101,71 (53 - 190)  $\mu$ mol / l. Physical inactivity was detected in 9 (64,28%) hospitalized patients.

#### Conclusions

Thus, for hospitalized patients, the most significant risk factors were physical inactivity, smoking, increased blood pressure, and a history of type 2 diabetes mellitus. For the elderly, the main risk factors are lipid and carbohydrate metabolism disorders, hypertension, physical inactivity. The correct approach to treatment and prevention of risk factors, depending on lifestyle and physical activity, further prolong and improve the quality of life of the patients.

#### **ROLE OF SCREENING CENTERS IN PREVENTION CONGENITAL ANOMALIES**

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The aim of the study is to analyze the congenital anomalies identified during 2020 in the Fergana region.

**Sources and methods**: based on statistical information from the Fergana regional health department.

**Result:** Among the population of the Fergana region in 2020 3623.3 cases were identified. Of the total 14.420 cases registered 2.495 were detected in the first and 8057 patients are registered.

Today 5% of newborns are born with hereditary diseases. Hereditary diseases are divided into 2 types: diseases of genes and chromosomes.

There is the possibility of early diagnosis of chromosomal diseases using research in screening centers but gene diseases including Phenylketonuria Color Blindness Hemophilia and other diseases cannot be diagnosed in advance since these diseases develop due to changes in nucleotides in DNA. This manifests itself in subsequent generations in the form of hereditary diseases.

Chromosomal diseases include the following diseases: Down Edvars Patau Shershevsky-Turner Klinefelter X-trisomy. They develop due to quantitative changes in chromosomes that is due to a decrease or increase in the number of body and sex chromosomes.

Hereditary diseases are caused by exposure to radioactive rays and chemicals during pregnancy. In addition congenital anomalies include heart defects microcephaly hydrocephalus and so on developing for all sorts of reasons.

Screening is a mass examination of population groups (pregnant women, newborns) aimed at identifying patients and carriers of the mutant gene in order to prevent birth early diagnosis effective treatment and prevention of severe complications of certain diseases. A mass screening method for detecting hereditary diseases is one of the most effective approaches in preclinical diagnostics and the possibility of phenotype copying. Screening programs do not allow a definitive diagnosis but only identify suspected sick people. Clarification of the diagnosis requires their repeated confirming examination. According to the WHO screening is the initial stage in a whole complex of further diagnostic and therapeutic measures necessary to correct the health status of people suffering from the tested disease. Requirements for neonatal screening programs for hereditary diseases.

For screening blood samples from newborns are taken on the 4th day of life (in premature babies on the 7th day) a blood sample taken from the baby's heel is used in the form of drops applied to a special filter paper. All studies are performed in laboratories of medical genetic consultations or centers. Congenital hypothyroidism does not belong to hereditary diseases but occurs in a child during intrauterine development due to damage to the thyroid gland in particular thyroid stimulating hormone deficiency etc. The leading cause of changes in the function of the thyroid gland is inflammatory changes in it defects in the germ layers the use of high doses of thyreostatic drugs by a pregnant woman. With a deficiency of gland products oxidative processes in all types of metabolism decrease which leads to a significant neuropsychic and physical development of the child. In congenital hypothyroidism three forms are distinguished: mild moderate and severe. The latter (myxedema) is recorded immediately after the birth of the child - mucous edema bradycardia constipation heavy weight lethargy drowsiness distinguish a sick child from his peers. In the absence of treatment, the lag in mental and physical development progresses. More often congenital hypothyroidism manifests itself especially with natural feeding, at the 4th-6th month of life. Until this time the child receives thyroid-stimulating hormones with mother's milk. Over

time the body does not get them and the patient registers severe somatic and neurological symptoms children begin to lag sharply in height weight and mental development. Patients react sluggishly to their surroundings they stop recognizing their parents. The voice is low "croaking". The most important thing is that the use of thyroid hormones in particular thyroxine prevents the development of disabling symptoms and change the patient's condition for the better.

Currently to determine the heredity of diseases clinical and genetic studies are being carried out for this the geneological tree of three generations of the proband is compiled and analyzed.

According to the screening center of the Fergana city for the period of 10 months of 2020 during the studies of pregnant women sent from 7 family polyclinics the following was revealed: a total of 4.790 registered "D". Pregnant women with a gestational age of 14 weeks-12 14-20 weeks were examined. 2761 over 20 weeks – 16 total: 2789. As a result of observations it was determined in pregnant women with a period of 14 weeks - 4.14-20 weeks - 22 over 20 weeks - 8 and only 34 abnormal cases. In 4 pregnant women with a period of 14 weeks in 16 pregnant women with a period of 14-20 weeks in 5 women with a period of more than 20 weeks premature termination of pregnancy was carried out and in 9 women for any reason the termination of pregnancy was not carried out.

**Conclusion:** Conducting screening and laboratory studies in early pregnancy and applying the necessary measures leads to a decrease in the development of cases with congenital anomalies.

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#### HYGIENE AND ENVIRONMENTAL PROTECTION

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**Abstract:** Hygiene is branch of medicine, where human is a core of its origin and development. Environmental protection , meanwhile, is broader than hygiene , it comprises taking care about whole life in the Earth and outside of it. Both are crucial in human wellbeing equally. Data on research about hygiene and environmental protection concerning exclusively human is provided below. This consists of brief history of hygiene and its definition; personal hygiene; environmental health; environmental health hazards, the routes of exposure and the ways of preventing and controlling these hazards.

The historical events of hygiene are roughly divided into two periods: the ancient and the modern. With regard to the former religious laws propelled the improvement of hygiene, these were aimed on personal hygiene. In modern times a number of discoveries in the 19th century were important events for the understanding of communicable diseases. For example, the link between contaminated water and cholera was discovered by John Snow in 1854; the importance of hygienic handwashing before attending delivery of a baby was noted by Dr. Semmelweis in 1845.

The exercise of proper personal hygiene is one of the essential parts of our daily life. Many people in rural areas may not understand what good or bad personal hygiene is. The prevention of communicable diseases, like diarrhoea, trachoma and many others is highly possible through the application of proper personal hygiene.

Our environment is everything that surrounds us. It includes all the external influences and conditions that can affect our health, life and growth .The term 'environmental health' is used to describe human health in relation to environmental factors. Environmental health can be defined as the control of all the factors in a person's physical environment that have, or can have, a damaging effect on their physical, mental or social wellbeing. Environmental health is a part of public health where the primary goal is preventing disease and promoting people's health. Environmental health is associated with recognising, assessing, understanding and controlling the impacts of people on their environment and the impacts of the environment on the public.

Our environment generally consists of physical, chemical and biological factors and our relationship with our environment is always interactive. This means that we affect our environment and our environment affects us. These interactions may expose us to environmental health hazards; that is any environmental factors or situations that can cause injury, disease or death. The actions that we need to carry out to protect the health of our community depend on knowing how these hazards can affect us all.

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### ASSESSMENT OF RISK FACTORS FOR THE DEVELOPMENT OF CARDIOVASCULAR PATHOLOGY IN PATIENTS WITH CORONARY HEART DISEASE

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### Introduction

Cardiovascular diseases (CVDs) are the number 1 cause of death globally: more people die annually from CVDs than from any other cause. An estimated 17,9 million people died from CVDs in 2016, representing 31% of all global deaths. Of these deaths, 85% are due to heart attack and stroke. Most cardiovascular diseases can be prevented by addressing behavioural risk factors such as tobacco use, unhealthy diet and obesity, physical inactivity and harmful use of alcohol using population-wide strategies. People with cardiovascular disease or who are at high cardiovascular risk (due to the presence of one or more risk factors such as hypertension, diabetes, hyperlipidaemia or already established disease) need early detection and management using counselling and medicines, as appropriate.

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erage values of the maximum SBP were 172,85 ± 0,15; maximum DBP was 98,57 ± 0,43.8 (57,14%) of the examined patients suffered from type 2 diabetes mellitus, and impaired glucose tolerance was observed in 1 (14,28%) patients. The average blood glucose level was 8,67 (5,0-14,9) mmol / L. In all hospitalized patients, lipid spectrum indices were determined, at which the average values were equal: total cholesterol 186,57 (132 - 255) mg / dl; the triglyceride level was increased in all patients 326,28 (221 - 478) mg / dl; HDL cholesterol 36 (26 - 56) mg / dL; VLDL cholesterol 65,43 (44 - 96) mg / dL; LDL cholesterol 85,14 (48 - 123) mg / dL. The average values of the biochemical blood test were equal: ALT 31 (11-52) U / l; AST 24,14 (12 - 38) U / l; urea 5,87 (3,4 – 9,1) mmol / l; creatinine 101,71 (53 - 190) µmol / l. Physical inactivity was detected in 9 (64,28%) hospitalized patients.

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Thus, for hospitalized patients, the most significant risk factors were physical inactivity, smoking, increased blood pressure, and a history of type 2 diabetes mellitus. For the elderly, the main risk factors are lipid and carbohydrate metabolism disorders, hypertension, physical inactivity. The correct approach to treatment and prevention of risk factors, depending on lifestyle and physical activity, further prolong and improve the quality of life of the patients.

### PUBLIC AWARENESS OF HIV INFECTION ISSUES

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**Relevance.** The problem of public awareness about the ways of HIV transmission (including from mother to child), as well as methods of infection prevention is extremely topical. Despite the efforts of scientists around the world, an HIV vaccine has not yet been invented, and prevention remains the only way to contain the epidemic. Information on how to spread and how to protect against HIV infection is available to the public. Nevertheless, the epidemic is growing. At present, medicine does not have the means to cure an HIV-infected person. Currently, stigma and discrimination are serious problems directly related to HIV / AIDS. Stigma in relation to HIV-infected people means a social stereotype that reflects the prejudice of those around them towards carriers of HIV infection. These people, due to their infection, are undeservedly attributed to qualities that are actually absent. So, on an emotional level, stigmatization is accompanied by a prejudice towards HIV-infected people among the population as indecent, unworthy and depraved people. On a rational level, stigmatization means the danger of HIV positive people to the health of those around them, the ability to infect them. Stigma leads to feelings of shame, guilt and isolation in HIV-positive people (self-stigmatization), and the extremely negative attitude of others (discrimination) pushes these people to inaction or actions that may harm other people. They can negatively affect the health, quality of life, social support and well-being of HIV-positive people. In recent years, a number of measures have been taken in Uzbekistan to form a legislative framework to counter the spread of HIV infection and reduce the level of stigma and discrimination against HIV-infected people.

Materials and methods of research: In order to raise public awareness about HIV infection, we developed a questionnaire to assess the level of knowledge about HIV infection. The questionnaire is anonymous and consists of sixteen questions. The first block contains information about the person being surveyed: sex, age. The second block contains questions about modes of transmission, measures to protect against infection. The third block contains a question on tolerance. The survey was conducted among the population of Tashkent by online survey. We created a website where we placed our survey and agitated people in passing the survey using social networks such as Telegram, Facebook and LinkedIn. A total of 100 people were surveyed in one month, 29 of them were men and 71 women. The majority of our respondents are married, accounting for 50% of the total. Doctors have proven that only four human body fluids contain sufficient concentrations of HIV to infect another person. These are: blood, semen, vaginal discharge and breast milk. If one of these fluids of an HIVpositive person gets into the body healthy, the probability of HIV infection is very high.

**Conclusions.** People who do not belong to these groups, believe that they are not in danger, and do not observe their behavior. A person becomes infected with HIV as a result of their actions, but not as a result of who they are. Anyone committing acts that border the risk of HIV can get AIDS. No one is immune from the disease if they put themselves at risk. No one deserves this disease. And until we understand that anyone can get HIV infection, the epidemic will continue. The results of the study showed not only a lack of general knowledge of HIV prevention, but also a low level of knowledge of legal issues, legislation, moreover, it was noted among professionals who, by virtue of their duties, should possess this information. Stigmatization of the disease began with the emergence of the HIV epidemic and its spread around the world and created fear of the disease. Especially the fear of infection is expressed in the need to provide services for HIV-positive people, in particular by health workers. Currently, as a result of research and targeted programs, many stigma and forms of discrimination have ceased to manifest themselves. Attitudes (especially non-physicians) towards infected people have significantly improved.

# FACTORS CONTRIBUTING TO THE EMOTIONAL BURNOUT OF NURSES ANESTHESIOLOGY DEPARTMENT

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**Relevance of the study:** Emotional burnout syndrome is a reaction of the body that occurs as a result of prolonged exposure to professional stress of moderate intensity. It manifests itself as symptoms of emotional, mental exhaustion, physical fatigue, personal detachment, and decreased job satisfaction. According to European studies, the risk of developing burnout syndrome in healthcare professionals varies from 2.4% to 72%.

**Objectives:** To identify the presence and severity of professional burnout syndrome in anesthetist nurses and to determine the most significant risk factors for emotional burnout in anesthetist nurses.

Materials and Methods. In the department of "Anesthesiology" of the Vakhidov republican specialized center of surgery for the period from September 2018 to March 2020 conducted a sociological survey of nurses. A total of 48 nurses were examined. Among the respondents, women predominate 41 people (85.5%), men – 7 people (14.5%).

**Results.** We took into account the following characteristics: gender, professional qualification, marital status, age, work experience. The largest number of nurses (56.25 %) are in the age groups from 20 to 30 years and from 31 to 40 years, 12 people (25 %) are in the group from 41 to 50 years and 9 people (18.75%) are in the group from 51 to 60 years. 15 (31.3 %) nurses have professional experience of up to 5 years. The majority of 24 nurses (50.0%) have experience from 5 to 20 years. 9 (18.7%) nurses have been working in the profession for more than 21 years. The distribution of nurses according to the degree of formation (severity) of the burnout syndrome was as follows. In (31) 64.6% of them there were no signs of burnout syndrome (low degree of burnout syndrome). That is, these people were distinguished by high stress resistance, emotional balance, and self-confidence. The average degree of burnout syndrome was almost one in 18.7%. In these cases, stress resistance was reduced, there were facts of emotional instability, a tendency to mood swings. In (3) 6.3% of nurses, the syndrome was form (high degree of burnout). The level of stress resistance was low, there was an emotional tension that tended to increase,

uncertainty, and frequent mood changes. And, finally, in 10.4% (5) of cases, the emotional burnout syndrome (an extremely high degree of burnout) was fully form with such manifestations as increased fatigue, decreased mental performance, various manifestations of bodily discomfort, irritability, increased conflict. The severity of the syndrome worsens with an increase in the age of nurses and their work experience. Nurses under the age of 40 years were characterized by a low degree of burnout, while at the age of over 50 years, all the examined patients had a relatively high degree of burnout syndrome. With a work experience of up to 5 years, the syndrome was not form in all cases (a low degree of burnout). With an experience of 5 to 20 years, in 54.2% of cases there was a low degree of burnout; in 37.5% — average; in 8.3% — high. With an experience of more than 20 years, in a third of cases (33.3%), the severity of the syndrome was average; in 22.2% — high, and in 44.5%— extremely high.

**Conclusions.** Almost a third (35.4%) of the nurses of the Department of Anesthesiology have manifestations of burnout syndrome of one degree or another. The prevalence of this syndrome increases with the age and length of service of nurses. Primary prevention, early detection and timely correction of the manifestations of burnout syndrome are a significant problem in the system of measures aimed at preserving the health of medical personnel.

# SOCIAL AND HYGIENIC FACTORS AFFECTING THE SPREAD OF ACUTE INTESTINAL INFECTIONS AMONG THE POPULATION OF UZBEKISTAN

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Due to the geographical location and hot climate in Uzbekistan, the problem of intestinal infections has always been one of the most urgent. Acute intestinal infections have become extremely widespread around the world, largely due to non-compliance with hygiene rules and the lack of proper information about the pathways of pathogens, methods of protection and treatment. Therefore, the true frequency of the AII exceeds the registered figures. The purpose of the study: to study the social and hygienic factors that affect the spread of AII, and ways to optimize preventive measures.

**Material and methods of the study:** A total of 200 people from rural and urban areas were surveyed, including 100 patients with acute intestinal infection and 100 practically healthy people. Sociological, epidemiological and statistical methods were used.

The results of the study. For many years, the incidence of AKI in our Republic has been kept at a consistently high level of 313.8-296.2 per 100 thousand population (1991-2020).

Initially, we studied information about the places of residence and lifestyle of the surveyed groups. The study of the work activity of the respondents revealed the following: 38% of the sick workers and 62% of the unemployed, respectively, were in the group of sick workers. And in the control group, 47% are employed and 53% are unemployed. As it turned out, the incidence of acute intestinal infections among families of unemployed people is higher than that of working people. (OR=1.45)

To the question: «Do you seek medical help?» in acute intestinal infections, in the group of patients, 86% of respondents said that at the beginning they self-medicate at home, and 14% go to medical centers immediately after the onset of diarrhea. In the control group, these indicators were 72% and 28%, respectively. The survey revealed that the distance between the home of respondents who do not seek medical help and the medical center was 1.5-3 km, and those who applied 14% (n=14) in most cases (n=10) live within a radius of 500 meters from medical centers. The randomly treated respondents in the main group used traditional medicine in 47% of cases, and 53% indicated that they used various medications for diarrhea; in the control group, these figures were 38% and 62%.

Among the respondents in the group of patients, 87% believe that washing hands before eating is mandatory; and in the con-

trol group - 96%. During the study of the significance of the types of toilets in the distribution of AII, it was found that 57 and 53% in the group of patients and in the control group, respectively, use local pits.

45 % of respondents in the group of patients have pets at home, of which 43% live in villages and 2% - in cities. In the control group, 46% of respondents have pets at home, of which 42% live in villages and 3% - in cities.

In the group of patients with pets, 87% keep animals at a distance of less than 30 meters from the water source, the remaining 17% - further than 30 meters. In the control group, these indicators were 61% and 39%, respectively. When infected with acute intestinal infections, the distance between the places where the animals stay and the water sources plays an important role. (OR=3.3).

Conclusions: The true prevalence of AII is difficult to assess, since there are no uniform requirements for their registration, and a very small number of cases are covered by specific (etiological) diagnostics. Among the registered cases in our republic, the alimentary route of transmission is the leading natural route. This is due to shortcomings in ensuring the sanitary and epidemiological well-being of the population, maintaining the sanitary and hygienic regime, disinfection and anti-epidemic regimes in educational institutions, public catering establishments and markets.

The problems with the spread of AII need further research, including at the level of studying the biological characteristics of the isolated strains.

# STUDY OF RISK FACTORS IN THE DEVELOPN1ENT OF STRESS URINARY INCONTINENCE IN WOMEN

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Annotation. Research works published in the past decades give us new insights about risk factors for stress urinary incontinence (SUI) in women. The prevalence of stress urinary incontinence (SUI) in the world is 30-40%. Risk factors such as age, obesity diabetes

have been shown to play a significant role in the development of different forms of urinary incontinence, but findings regarding the role of hormonal changes are inconsistent. Obesity was shown to have detrimental impact on SUI development, while weight reduction was proven to reduce SUI. SUI in women in Uzbekistan is widespread and occurs in 32% of women. Urinary incontinence is a topical medical and socio-economic problem. For many women, it causes anxiety, discomfort and negatively affects the quality of life re1ated to health. Especially, stress urinary incontinence has a fairly strong effect on socia1 activity and quality of life in 92% of women. Defying risk factors for SUI can facilitate prevention strategies in an aim to reduce SUI prevalence among women.

# THE ROLE OF THE NURSE IN THE PROCESS OF PATRONAGE AMONG CERTAIN GROUPS OF THE POPULATION

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**Introduction.** The role of nurses in prevention is very important, especially with patients with chronic diseases. Because the improvement of this population group will not only improve their health, but also help to improve the health status of the population as a whole.

Aim of the study was to investigate compliance of patient to the doctor's prescription and optimization of nursing activity in prevention risk factors of diseases among population of Uzbekistan.

**Results.** Among the reasons why patients did not perform the prescribed medical rehabilitation were the lack of often visible positive effects, discomfort during medical treatment, high cost of recommended treatments, confidence in the success of treatment, distrust of medical staff and others. Significantly, one in two respondents cited several reasons that prevented them from completing a full course of treatment, including those who did not complete the medical rehabilitation program. It was noted that after tergeted interviews by nurses with patients who did not consider it necessary to perform the prescribed types of treatment or did not complete them, their share decreased to 6.9 and 17.3 percent, respectively.

An important role in the work of a psychologist is played by informational, explanatory, persuasive and persuasive conversations. One of the important areas of rehabilitation therapy for patients with chronic diseases was social rehabilitation, which is related to medical rehabilitation and is based on the introduction of a healthy lifestyle into their daily lives, which allows to increase the effectiveness of medical-psychological measures. The results of this study identified a leading role of medical activity in the formation of adverse health indicators in the study group, as well as its low level in a significant proportion of respondents.

Optimization of medical activity was aimed at increasing medical literacy, changing medical behavior, and introducing a healthy lifestyle to the group of patients surveyed. The social rehabilitation program consists of several sections.

The increase in medical literacy contributes to a positive change in the lifestyle of patients, which has been reflected in the increase in the proportion of people who incorporate various elements of a healthy lifestyle into their activities.. In addition, the proportion of people who quit smoking (31 males or 8.6% and 15 females or 3.6%) changed their workplaces to non-occupational hazard-related workplaces (17.1%) for various reasons. occupational hazards). In assessing the effectiveness of the proposed medical and social rehabilitation program, all examined patients with chronic pathology were divided into 3 groups, one of whom actively participated in the program and completed all areas of medical and social rehabilitation (297 patients - 37.9%)

**Conclusion.** Improving medical literacy informs patients about risk factors for chronic diseases, possible pathologies of existing pathology and possible ways to restore health, on the one hand, increase the impact of negative factors, instill confidence in the need and, on the other hand, develop positive factors related to health and strengthening, teaching healthy lifestyle skills.

### HISTORICAL ASPECTS OF THE DEVELOPMENT OF GERONTOLOGY

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The proportion of elderly and senile people is increasing every year, because the average life expectancy is growing all over the world. Humanity has always sought to live a long, active, full life. Moreover, it would be desirable that the human body in old age was moderately physically strong, maintained clarity of mind, accompanied by wisdom and did not leave the creative activity.

**Objectives:** To study the development and formation of gerontology in the historical aspect.

**Materials and methods:** In our research, we studied the medical works of great scientists who dealt with the problems of gerontology, as well as the materials of the Internet. The main research method is historical.

**Results:** In many countries, scientific minds were engaged in the search and invention of the elixir of youth and immortality. For centuries, the issues of gerontology have been studied by many luminaries of medicine and are still relevant to this day. Hippocrates and the philosophers of ancient Greece also observed old people and tried to find a scientific explanation for the aging process. Hippocrates and his associates described the specific symptoms of kidney disease, bile ducts in old age, senile cough and suffocation; joint pain, dizziness, insomnia, hearing loss, cataracts and other symptoms of old age. In ancient Greece, for the first time, a scheme of hygienic regime for old people was introduced. The basis of this regime is the principle of "moderation in everything" - reducing the amount of food taken, maintaining the usual skills and gradually giving up active work. Further in the history of mankind in ancient Rome, the great physician Claudius Galen distinguished between normal and pathological

aging. One of his positive suggestions is that the elderly should live in a family, in a home environment with their relatives of different generations. For the nutrition of old people, light food was offered: dried fruits, fish, lean meat, vegetable oils; personal hygiene rules were developed, which included massages, baths, and an active lifestyle. The complete immobilization of old people was assessed as a disaster with severe irreversible consequences. Galen first drew attention to loneliness as one of the main causes of aging. The doctors of the Salerno School also dealt with the problems of aging, they outlined all the features of the daily regime and nutrition in the "Salerno Code of Health". Medical scientists of the East, including Abu Ali ibn Sina, were interested in and studied the features of aging. Abu Ali ibn Sina noted that in the body of the elderly there is a retention of fluid in the internal organs and, conversely, the drying of the skin and bones. In addition, the resistance to infections decreases, the pulse slows down, vision deteriorates, and metabolic processes slow down. Avicenna's recommendations at this age are moderate food intake, mandatory exercise, abstinence from alcohol, and walking in the fresh air. Russian biologist Mechnikov can be called the founder of scientific gerontology. He studied histological changes and the role of the immune system in the aging process.

**Conclusions:** Based on the above, we concluded that the topic of gerontology has been exciting the minds of mankind for a long time and all the information that is devoted to the problem of gerontology is still being studied. And this is relevant in our time, when the aging of the world is progressively growing. In many ways, the quality and duration of life is influenced by the way of life of a person, which depends on the person and his desire to live, to enjoy life.

#### МУАЛЛИФЛАР УЧУН МАЪЛУМОТ МАҚОЛАЛАР ФАҚАТ ЮҚОРИДА КЎРСАТИЛГАН ҚОИДАЛАРГА ҚАТЪИЙ РИОЯ ҚИЛИНГАН ХОЛДА ҚАБУЛ ҚИЛИНАДИ!

#### ҚЎЛЁЗМАНИ ТАЙЁРЛАШ ҚОИДАЛАРИ

I. Мақола қўлёзмаси ўзбек ёки рус тилида, икки нусхада, дискети, ўзбек ёки рус тилларида эксперт хулосаси, юбораётган муассасанинг илова хати ва ўзбек, рус, инглиз тилида реферат (10 ва 15 қатордан ортиқ бўлмаслиги керак).

II. Қўлёзма фақат компютерда «Word.» дастурида ёзилиши керак ва аниқ ҳарфлар билан, ўлчамлари бир томонда 14 ҳажмда (форматА4) ва майдонлар билан бир ярим оралиқда босилган бўлиши керак. Мақола ҳажми ҳар бир бўлим учун белгиланган ҳажмдан ошмаслиги лозим.

III. Мақоланинг тузилиши:

- Кириш қисми;
- Тадқиқот усуллари;
- Тадқиқот натижалари;
- Мухокамаси;
- Хулосалар;
- Фойдаланилган адабиётлар рўйхатини библиографик қоидаларга мувофиқ тузиш.
- Материалларни аниқ, қисқа ва лўнда, узун кириш сўзисиз ифодалаш зарур, матнда қайтариқлар, жадвал ва расмларнинг такрорланиши мумкин эмас.
- IV. Ҳар бир мақолада қуйидагилар бўлиши керак:

1. УДК шифри;

- 2. Мақоланинг тўлиқ номи;
- 3. Муаллифларнинг илмий даражаси ва унвони, исми насаби;
- 4. Иш бажарилган муассасанинг номи;
- 5. Муаллифнинг почта манзили ва телефон рақами;
- 6. Илмий иш раҳбарининг чоп этиш учун берган рухсатномаси, мақола матни пастки қисмида эса барча

муаллифларнинг имзоси бўлиши шарт.

7. Матнда ажратилиб бериладиган сўзларнинг пастки қисми муаллиф томонидан чизиб кўрсатилиши керак. Махсус ҳарфлар ва рамзлар (масалан, грек алифбосидаги ҳарфлар) ни, шунингдек, расм ва жадвалларга бериладиган ҳаволаларни матнда биринчи бор эслатилгандаёқ ёзув қоғозининг чап ҳошиясига ёзилади.

8. Ўлчов бирликларини Халқаро тизим (СИ), да ифодаланиши керак, зарурат бўлганда, бошқа тизимлардаги СИ ўлчов бирлигидан кейин қавс ичида кўрсатилиши мумкин.

9. Аннотациялар ўзбек, рус, инглиз тилларида бўлиши керак.

V. Фойдаланилган адабиётлар руйхатини библиографик коидаларга катъий риоя этган холда амалга ошириш керак.

**VI.** Барча иллюстрациялар (чизмалар, диаграммалар, суръатлар) СРТ, ВМР, CDR, JPG,TIF форматида сақланган алоҳида файлда бўлиши керак. Ҳар бир расмнинг орқасида «усти», расмнинг тартиб рақами, биринчи муаллифнинг исми ва мақола номи кўрсатилади. Расмлар матнда берилиши тартиби бўйича рақамланиши керак. Расмларга берилган изоҳлар, расмнинг тартиб рақами кўрсатилган ҳолда алоҳида қоғозга босилади.

Микрофотографияларга бериладиган изоҳларга эса окуляр ёки объективни катталаштириш тартиби кўрсатилиши керак. VII. Жадвалларни бериш тартиби.

Хар бир жадвални алохида қоғозга, икки интервалда босилиб, унинг номи, зарур холларда қаторнинг тегида

изоҳлари берилиши лозим. Жадвалларда фақат тегишли зарур маълумотлар акс этиш ва тадқиқот материаллари статистик жаҳатдан умумлаштирилган бўлиши шарт.

VIII. Формулаларни бериш тартиби. Формулаларда қуйидагиларни белгилаш керак:

- кичик ва катта ҳарфларни (катта ҳарфларни пастки икки чизиқ билан кўрсатилади ва кичик ҳарфларни устидан
- иккита чизиқча чизиб белгиланади);
- лотин, юнонча ҳарфларни (лотин ҳарфларни қизил рангда, юнон ҳарфларини эса кўк рангда доира ичига олинади);
- қатор усти ва қатор тегидаги ҳарфлар ва рақамларни ажратиб белгиланади.
- **IX.** Фойдаланилган адабиётларни бериш тартиби.

Адабиётлар рўйхати охирги 5 йил ичида нашр этилган бўлиши, сони 10 тадан ортмаслиги керак (тадқиқот

мақолалари бундан мустасно). Матнда ҳаволалар адабиётларнинг рўйхатдаги тартиб рақами бўйича қавсда берилади. Мақола матнининг охирида, биринчи муаллиф фамилиясига кўра алифбо тартибида берилади. Агар бир муаллифнинг бир неча асари берилаётган бўлса, уни хронологик тартибида жойлаштирилади. Мақолалар, китоблар ва журналларнинг нашрлари улар нашр этилган тилда берилади. Қабул қилинган мақоланинг тилига таржима қилинмайди!!!

Х. Рўйхатга қуйидагилар киради: китоблар орқали – муллиф (лар) нинг исми ва фамилияси, китобнинг тўлиқ номи, нашр жойи ва йили; журналларда, илмий асарлар тўпламларида: муаллифнинг фамилияси ва исми, мақола номи, журнал ёки тўплам номи, журналнинг рақами, саҳифа рақами – тўлиқлигича. Рўйхатга диссертация ва авторефератлар кирмайди.

#### Рўйхатни муаллиф томонидан диққат билан тасдиқлаш керак.

XI. Бошқа нашрларга юборилган ёки чоп этилган мақолаларни нашриётда қабул қилиниши мумкин эмас.

XII. Қоидаларга кўра тайёрланмаган мақолалар эътиборга олинмайди.

#### К СВЕДЕНИЮ АВТОРОВ

#### Статьи принимаются только оформленные

#### в строгом соответствии с приведенными правилами!

#### ПРАВИЛА ОФОРМЛЕНИЯ РУКОПИСЕЙ

I. Рукопись статьи представляется в двух экземплярах с электроной версией, на узбекском или русском языках с экспертным заключением, сопроводительным письмом направляющего учреждения и рефератом (не менее 10 и не более 15 строк) на узбекском, русском и английском языках.

II. Рукопись должна быть набрана только на компьютере в программе «Word.» и распечатана четким шрифтом, размером 14 на одной стороне листа (формат A4) через полтора интервала с полями. Объем статьи не должен превышать указанного в каждой конкретной рубрике.

III. Структура статьи:

- вводная часть;
- методы исследований;
- результаты исследований;
- обсуждение;
- выводы;

- список использованной литературы, составленный в соответствии с библиографическими правилами.

Изложение материала должно быть ясное, сжатое, без длинных введений, повторений и дублирования в тексте таблиц и рисунков.

IV. Каждая статья должна содержать:

1) шифр УДК;

2) полное название статьи; на русском, узбекском и на английском языках

3) ученую степень, научное звание, инициалы и фамилии авторов;

4) название учреждения, в котором выполнена работа, с указанием инициалов и фамилии научного руководителя;

5) почтовый электронный адрес и телефоны автора, с кем следует вести редакционную работу.

6) визу руководителя работы или учреждения на право ее опубликования, а в конце статьи – подписи всех авторов.

7) слова, которые, по мнению автора должны быть выделены, подчеркиваются им в тексте. Специальные буквенные шрифты и символы (например, буквы греческого алфавита), а также ссылки на рисунки и таблицы выносятся на левое поле при первом их упоминании.

8) Единицы измерения должны быть выражены в единицах Международной системы (СИ), при необходимости в скобках после единицы измерения СИ может быть указана размерность в других системах.

9) обязательным должны быть аннотации на русском, узбекском и на английском языках

V. Список использованной литературы должен быть оформлен в строгом соответствии с правилами библиографического описания.

VI. Оформление иллюстраций.Все иллюстрации (рисунки, схемы, фотографии) должны быть в отдельном файле, сохраненныевформатеСРТ, BMP, CDR, JPG, TIF. Наобороте каждой иллюстрации указывается «верх», номеррисунка, фамилия первого автора и название статьи. Иллюстрации должны быть пронумерованы согласно порядку их следования в тексте.

Подписи к рисункам печатаются на отдельном листе с указанием номера рисунка. В подписях к микрофотографиям указывается увеличение окуляра и объектива.

VII. Оформление таблиц. Каждая таблица печатается на отдельной странице через два интервала, должна иметь название и, при необходимости, подстрочные примечания. Таблицы должны содержать только необходимые данные и представлять собой обобщенные и статистически обработанные материалы исследования.

VIII. Оформление формул. В формулах необходимо размечать:

- строчные и прописные буквы (прописные обозначаются двумя черточками снизу, а строчные – двумя черточками сверху);

- латинские и греческие буквы (латинские обводятся красным, а греческие – синим цветом);

- подстрочные и надстрочные буквы и цифры.

IX. Оформление литературы. В библиографический список вносится не более 10 работ(за исключением обзорных статей), опубликованных за последние 5 лет. На все работы, включенные в библиографический список, в тексте обязательно приводятся ссылки в квадратных скобках!!!. Список литературы составляется в соответствии с ГОСТом «Библиографическое описание документа» и помещается в конце статьи. Библиография составляется строго в алфавитном порядке по фамилии первого автора и в хронологическом, если приводится несколько публикаций одного и того же автора. Названия статей и книг и журналов приводятся на том языке, на котором они были изданы. Перевод на язык представляемой статьи не допускается!!!

Х. В списке должны быть приведены: по книгам – фамилия автора (ов) и его инициалы, полное название книги, место и годиздания; пожурналам, сборникам научных трудов: фамилия автора и его инициалы, название статьи, название журнала или сборника, номер журнала, номер страницы – от и до. В список не включаются диссертации и авторефераты к ним.

Список должен быть тщательно выверен автором.

XI. Направление в редакцию работ уже посланных в другие издания или ранее опубликованных, недопустимо.

XII. Статьи, оформленные не по правилам не рассматриваются.