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Inhalt

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FEATURES OF CRANIOLOGICAL SIGNS OF ASYMMETRY OF THE FACIAL SKULL OF MATURE PEOPLE

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The aim of the work was to determine the signs of asymmetry in different asymmetrical parts of the facial bone of mature people.

Symptoms of facial skull asymmetry were studied by us on 32 skulls of mature people from the craniological collection of the museum belonging to the human anatomy department of the Azerbaijan Medical University. To study the asymmetry of the facial skull, a fan method of morphometric study was used. The proposed method makes it possible to assess asymmetry in the upper, middle and lower parts of the facial skull.

The results of the research showed that the most important craniometric features for assessing asymmetry are the following: in the "upper fan" - nasion; in the "lateral fan" - zygomaticomaxillary; in the "lower fan" - the point in the place of the minimum width of the back of the nose.

In studying the craniometric parameters of the "upper fan" in the female series, attention is drawn to the significant left-sided asymmetry in the distance from the point of nasion to the zygomaxillary point in chamerins, right-sided asymmetry in leptorins, whereas in the mesorin group, a slight right-sided asymmetry is noted. As for the asymmetry of the indicator nasion frontotemporal, there is a weak right-sided asymmetry in the chamerins and a significant asymmetry in the meso- and leptorin group.

When analyzing the data obtained by the "side fan", it can be concluded that there is a strong right-sided asymmetry in the values of the indices-the distance from the zygomaxillary point to the point in the region of the minimum width of the dorsum of the nose and from the zygomaxillary point to the lateral point on the nasolabial seam; Relatively pronounced left-sided asymmetry with respect to the value of the zygomaxillary-dacryon index and the practical absence of asymmetry in terms of the index - the distance from the zygomaxillary point to the point of the lateral edge of the pear-shaped hole.

In the "lateral fan", the largest left-sided asymmetry is observed in terms of the distance from the zygomaxillary point to the point on the lateral edge of the pear-shaped hole. In terms of zygomaxillary, asymmetry was not revealed, in meso- and leptorins in the female series, there was a slight left-sided asymmetry.

Thus, the "fan" approach to studying the asymmetry of the facial skull showed that asymmetry occurs in the zone of localization of different "fans" ("upper", "lower", "lateral"), that is, in different parts of the facial skull.

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ACTIVITIES OF THE CENTER FOR SPECIAL SOCIAL SERVICES # 1 IN ALMATY

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State Centers of Special Social Services (COSSS) contribute and ensure a decent life as close as possible to reality, for persons who have combined persistent health defects and lost their social and civic activity. Medical care for these people in the conditions of COSSS aims more at supporting therapy, only partially on rehabilitation and palliative care. Combined diseases (a combination of mental illness, oncology, etc.), often do not allow hospitalization of such patients in the profile hospitals, and sometimes they are not accepted there because of the combined pathology which is sometimes resistant to therapy, also because of taking psychotropic drugs for years, psychiatrists of the center are constantly conducting the treatment. Treatment of patients with exacerbation of mental illness, and severe decompensated somatic diseases is carried out with the assistance of the internists, titration of dosages of drugs and the selection of psychotropic drugs available in the center, thus, it is possible to stabilize the condition of the patients. Problems in treatment not related to the provision of medical care - frequent interruptions in the supply of psychotropic drugs associated with rising prices, which instantly reduce the amount of planned drugs and protracted tendering processes for the procurement of drugs, which complicates the work of physicians.

At the beginning of 01/01/2017 we studied 341 patients including: women - 45.7%, men - 54.3%. By age: 20-39 years (22 - 6.4%); 40-49 years (45 - 13.2%); 50-59 years (102 - 29.9%); 60-69 (106 people -31%); 70-80 years (59 -17.3%); Over 80 years (7 -2%). According to the age structure in the center - persons over 50 years - 80% (273 patients). Out of 341 people, 242 patients were with disability. 99 patients remained intact legal capacity. Adaptation possibility were found satisfactory in 30 patients.

Adaptation and rehabilitation possibilities were reported in 66 patients. 88 patients received regularly comprehensive treatment, 14 of them with convulsive syndrome. Out of 341 patients: 231 patients (67.7%) with diagnosis: schizophrenia; 40 patients (11.7%) - mental retardation; 13 patients (3.8%) - dementia; 43 patients (12.6%) - organic lesions of the central nervous system; 14 patients (4.1%) - epilepsy.

All other types of medical services to this contingent are on equal terms in specialized medical organizations of primary medical care of the Ministry of Health of the Republic of Kazakhstan.

Thus, to positive results of COSSS's activities in terms of providing medical care for the last 3 years (2014-2016), we can note:

1. Positive results can be achieved in the treatment of complex mental pathology resistant to therapy;

2. The lifespan of the patients has increased by more than 2 years;
3. Among the patients, the proportion of long-living increases year after year, despite a mental defect and a background multi-organ failure (timely treatment and general care);
4. In the structure of the dead, patients over 60 years old with multiple organ decompensated pathology (expected death);

In general, the activity of COSSS # 1 develops dynamically, constructive and promising in the existing legal framework, financial and material support for this period of the country's Healthcare development.

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MEANS FOR THE EFFECTIVE PREVENTION OF COLON DYSBACTERIOSIS

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According to WHO, the intestinal dysbacteriosis is a widespread condition found in 80% of the population. Modern studies show that the degree of well-being of the human body is closely related to the state of the colon's microbiocenosis, which makes it important to find effective means for the prevention of dysbiotic disorders.

Earlier, we established a criterion determining the dependence of the degree of dysbiosis on the state of local antioxidant status — a local antioxidant index (LAI), which made it possible to use it to assess the effectiveness of the ongoing correction.

It is supposed that it is possible to influence the development of dysbacteriosis with the help of complex agents containing, along with live probiotic strains, volatile fatty acids (VFA) and low molecular peptides (LMP).

Previously, in our laboratory, a hydrolyzate of dairy cottage cheese containing in its composition 54,3% of low molecular weight peptides with a molecular mass of 3 to 7 kDa was developed. From the hydrolyzate, LMPs were isolated and their ability to maintain microbial equilibrium in experimental dysbacteriosis in mice was experimentally proven. Testing of the antimicrobial activity of LMP hydrolyzate, in cultures of Escherichia coli 3912/41, Staphylococcus aureus 6538 ATCC-209p, Shigella sonnei «S-form», Salmonella typhimurium 301, Pseudomonas aeruginosa 27/99, showed their pronounced bacteriostatic action against these microbial species.

By growing a strain of Bifidum bifidum on a GT medium based on a hydrolyzate, we obtained «Liquid bifidumbacterin on a GT medium». In «Liquid bifidumbacterin on a GT medium», the method of gas-liquid chromatography, as well as in the hydrolyzate, revealed LMPs, and the amount of VFA exceeded their content in dry commercial «Bifidumbacterin» by 5 times (25, 294 g/l versus 5,11 g/l).

The use of dry «Bifidumbacterin» in experimental dysbacteriosis in mice did not contribute to retention of the normal amount of lactobacilli, escherichia and a decrease in the number of opportunistic enterobacteria. Whereas when using «Liquid bifidumbacterin on a GT medium» in mice with experimental dysbacteriosis, the composition of the microflora of the colon corresponded to the control indices, and the level of LAI in coprofiltrates significantly exceeded this index in the control group by 89%, and relative to the group taking the dry «Bifidumbacterin» - by 77%.

Thus, this study showed the effectiveness of the use of LMP both in its own form and in the composition of «Liquid bifidumbacterin on a GT medium» in experimental dysbacteriosis, found pronounced prophylactic properties and the ability to stimulate the factors of local nonspecific resistance. The high efficiency of the received means is caused by a decrease in the aggressiveness of the habitat of microorganisms.

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HUMAN HEALTH AND GEOCHEMISTRY

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During formation of various types of living organisms they have developed a kind of “habit” to accumulate some form of chemical elements distributed in the geological environment at homeland. First, in terms of trace elements which are distributed in the lithosphere extremely heterogeneous. Gradually, such a “habit” it became a genetic trait that determines the nature of life. The development of adaptive reactions of living organisms on geochemical conditions of the environment and certain concentrations of chemical elements in it is the most important characteristic of the organization of the biosphere.

The metal ions are by the active centers of many enzymes, which determine the characteristic features of living organisms, primarily that of the highest mammals, in particular humans. A wide range of metalloenzymes detects the passage of many physiological processes, and it is safe to assume that the occurrence of certain biochemical differences in ethnic groups and their behavioral characteristics are related to the geochemical characteristics of the geological environment in their homeland.

However, based on the principles of geochemical isomorphism, the ion of any element, especially with its lack in the environment, later can be replaced by an ion of another element which is close to him in size, charge and nature of the chemical bond. A wide spectrum of possible isomorphic substitutions leads to a decrease, and often stop of the activity of some enzyme, and, consequently, to disruption of physiological processes in the human body, that is to change of its behaviour and even disease. Isomorphic substitutions of chemical elements in living tissues, associated with the variability of the geochemical composition of the living environment are an important factor in determining a person’s vitality.

Radioactive isotopes are the important geochemical aspect of the conditions of life. Considering that ionizing radiation is an important mutagenic factor that is evident even over a short period of time, during millions of years in parts of the lithosphere which was highly rich in radioactive elements and could cause mutagenic effects, the Homo sapience may have formed the background of quiet evolution of primates. It can be assumed that the influence of radioactive elements in combination with other geochemical characteristics is also manifested in the development in certain geological territories of ethnic groups with different genetic traits and behavioral characteristics. From the point of view of the problems of the modern world, the most dangerous is the possibility of isomorphic substitution between biophile elements which involved in physiological processes and man-made radioactive isotopes.

In the urban environment, especially in large cities, there is an accumulation of many trace elements in the water, air, soils. The general indicators of the variability of chemical composition of the environment are soils and sediments of water reservoirs. Therefore, their geochemical study and correlation with statistics on morbidity is one of the priority areas of environmental geochemistry and medical geology.

In general, the impact of geological-geochemical peculiarities of the environment on the life of peoples can be formulated as follows. The relationship of all processes that shape our planet applies to the biosphere and the noosphere as the results of endogenous and exogenous natural and natural-technogenic processes on our planet. They display at different levels of development of human civilization - from the emergence of Homo sapiens, ethnogenesis, the evolution of human society up to the viability of individuals. The geochemistry of chemical elements in urban areas and their influence on the health of peoples are one of the most important problems now. And this problem demands of the close cooperation between geochemists, physicians and biochemists.

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THE PROBLEM OF "WATER AND HEPATITIS A" IN KAZAKHSTAN

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The problem of "water and health" remains one of the most important environmental problems for Kazakhstan, as to date indicators of water supply and systems of water supply remain unpleasant. Water supply for the population and industrial enterprises in Kazakhstan is carried out through the use of surface and groundwater. The share of surface water in the total volume of abstraction of water for communal and household needs and

underground water is 52% and 48% respectively. Existing water supply systems do not meet the requirements for reliability and continuity of water supply. More than 40% of the main and distribution channels are in unsatisfactory technical condition. Therefore, water is one of the main factors in the spread of infectious diseases.

Present situation with drinking water supplies has an impact on the state of infectious morbidity within the country's population. One of them is viral hepatitis "A" with a water transfer factor. Hepatitis "A" mostly affects children. Adults get sick less often, and their infection transfers from their children. Each year, from 13 to 30 thousand patients infected with hepatitis are registered. The incidence of hepatitis has a direct relationship with the unsatisfactory state of water supply networks and facilities, the quantity and quality of drinking water. An outbreak of 50 cases of viral hepatitis "A" in the Almaty region was recorded on the territory of Kazakhstan in 2011. As it turned out later, the factor that influenced the incidence rate was the population's use of water from decentralized water supply sources. Currently, more than 1.7 million people (10.6%) use water from decentralized sources, over 82,000 people (0.5%) from open water bodies or irrigation ditches and more than 216 thousand people (1.3%) use water of non-guaranteed quality.

In order to fix the problem, the government adopted sectoral and state programs: "Drinking Water" until 2010, "Ak Bulak" until 2020 and the State Program for Water Resources Management until 2040. As for the prevention of viral hepatitis "A", the basic legal norms on sanitation are laid down in the Code of the Republic of Kazakhstan "On the health of the people and the health care system", adopted on September 8, 2009. The Code contains a special section 6 "Activities in the field of sanitary and epidemiological welfare of the population and protection of public health". In this section it is said about the system of the state sanitary-epidemiological service, about the sanitary-epidemiological regulation and requirements for them, including information about the places of water intake for household and drinking purposes, domestic and drinking water supply, the places of cultural and household water use, and the safety of water objects. The government developed and approved standards concerning hygienic requirements for water quality control (GOST). They are used by the State Sanitary and Epidemiological Service of the Republic of Kazakhstan to conduct sanitary and laboratory control of water supply facilities and drinking water quality.

Researchers found that viral hepatitis became one of the main causes of deaths in the world. The number of living years lost from hepatitis, which is obtained by subtracting the death from the maximum possible life expectancy, was 41 million in 2013 alone. In addition, according to local officials, by 2050 people of Kazakhstan will feel a shortage of water - the deficit will increase three times. Realizing that the sad future is not far off, the country is looking for new ways of extracting "life-giving moisture". Thus, the creation of new water supply systems, the reconstruction and reorganization of the existing ones, regulatory legal support of the industry, the formation of a market for drinking water supplies to the population and a number of sanitary and epidemiological measures will reduce the incidence of people being infected by viral hepatitis "A" by 70-80% by 2030 .

Meanwhile, we all need to remember that water today is the only natural resource that has no analogues.

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PHOSPHAZIDE IN THE FIRST-LINE REGIMENS OF ANTIRETROVIRAL THERAPY: TOLERABILITY AND ADVERSE EFFECTS

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A study was conducted to assess tolerability and adverse effects of antiretroviral therapy using the domestic phosphazide drug (FAZT, Nicavir) during the year of treatment.

Key words

HIV infection, antiretroviral therapy, phosphazide, tolerance.

Materials and methods

The study included patients with HIV infection from the regional center for the prevention and control of AIDS in Perm, Russia, who received HAART in 2008-2009. The study included 23 patients 19-39 years old, 18 (78%) women and 5 (22%) men with A2 (6%), B1 (6%), B2 (83%) and B3 (5%) stages of HIV infection (CDC, USA, 1993). Within 48 weeks, patients received a regimen according to the national protocol for treatment of HIV infection in adults: FAZT + 3TC + EFV. Phosphazide (class NRTI) produced by "AZT PHARMA KB" is a phosphorylated derivative of azidothymidine, applied per os in the form of tablets at 0.4 g twice daily. 3TC and EFV were used in standard doses. Tolerability and undesirable effects were analyzed in the dynamics of clinical observation and laboratory testing at 4 weeks, and then every 3 months, including examination and results of the general (hemoglobin, erythrocyte, platelet, leukocyte, lymphocyte) and biochemical (glucose, lipids, bilirubin, ALT, ASAT, creatinine, urea) blood tests. A general blood test with the definition of the leukocyte formula and platelets was performed with the help of the MEK-7222 blood analyzer; Biochemical study was performed on an automatic analyzer Conelab 20 with an ionoselective block for assessing the functional state of the liver and kidneys in dynamics. The parameters studied were compared with the norms calculated for the Perm region.

Results

Treatment with phosphazide, lamivudine and efavirenz was well tolerated and was accompanied by a lack of clinical and laboratory adverse effects. In addition, therapy with phosphazide in 4 weeks led to an increase in the level of hemoglobin (from 110.8 + 2.23 g / L to 129.8 + 2.59, $p < 0.05$), which remained within the normal range for 48 weeks.

Conclusion

During the whole period, the observation of clinically significant deviations in the

laboratory parameters that would lead to withdrawal of the therapy or a change in the phosphazid scheme, lamivudine and efavirenz were not observed.

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AL-FARABI UNIVERSITÄT – DIE BESTE UNIVERSITÄTSAUSBILDUNG IN KASACHSTAN

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Kasachisch National University benannt nach Al Farabi (weiter KazNU) ist eine Universität mit langer Tradition, langjährige Erfahrung in der Lehre und Forschung, eine führenden Hochschulen der Republik Kasachstan, bestand die erste, die staatliche Zertifizierung und bestätigt die richtigen Bildungsaktivitäten durchzuführen, in allen Spezialitäten und Ebenen, ein führenden Unternehmen Allgemeine Rating der Universitäten von Kasachstan, der erste Laureate des Kasachstans Präsidentenpremie „Für Leistungen in der Qualität", der Diplomant der Auszeichnung GUS für Leistungen in der Qualität der Produkte und Dienstleistungen. Unsere Universität, als Mitglied der Internationalen Vereinigung der Universitäten und Mitbegründer der Eurasischen Vereinigung der Universitäten, die erste unter den Universitäten von Kasachstan und zentralasiatischen Ländern unterzeichneten in Bologna Magna Charta Universitatum, hat erfolgreich die internationale Zertifizierung von Qualitätsmanagementsystem nach den Anforderungen der internationalen Standarten ISO 9000: 2000 und erhielt ein Zertifikat der größten Zertifizierungsstellen weltweit - Internationalen Zertifizierungssystem IQNET. In der renommierten Global Ranking «UI Grün Metric Ranking of World Universities - 2016" war die KNU das erste Mal und hat einen würdigen Platz in der stärksten Gruppe genommen. Die Eingabe der Top-200 „grünen" Universitäten zeigt die hohen Leistungen und eine großes Potenzial von der National Universität of „grüner Entwicklung". Laut der Forschung von der internationalen Ratingagentur QS (UK), Kazakh National Universität im Jahr 2016 ist in die Top 250 Universitäten, besass Rang 236 unter der 800 besten Universitäten der Welt.

Heute ist Al-Farabi Universität ein Bildungskomplex, der eine große Auswahl an 81 Bachelor-Majors bietet, 84 Graduate-Programme und 64 Spezialitäten der Doktor der Philosophie (PhD).

In Universität funktionieren 7 Forschungsinstitute, 1 Science and Technology Park, 5 Institute, 30 Forschungszentrum des sozio-humanitären Profils, 15 Fakultäts, 62 Lehrstuhle und 7 Departments.

Die Grundstückfläche ist mehr als - 100 Hektar, wo es 14 Schulgebäude, davon 16 College-Campus, Studenten Palast, wissenschaftliche Bibliothek, Ernährung Kombinat, Internet-Center, ein Sportkomplex und Stadion, Zentrum für Student Service "Keremet".

Universität hat auch einen eigenen Sportsommerlager am Issyk Kul See (Kirgisistan) Agrobiostantion naher Almaty.

Heute KazNU arbeitet erfolgreich mit mehr als 400 großen Universitäten aus 25 Ländern.

Im Dezember 2015 öffnete seine Türen ein neues Medizinisches Fakultät - School of Public Health (VSHOZ). Für eine Basis von Bildungsprogrammen hat VSHOZ die Bildungsprogramme der medizinischen Fakultäten der führenden südkoreanischen Universitäten genommen,

Im Rahmen der internationalen Zusammenarbeit hat KazNU bereits begonnen die Vorbereitung künftiger Spezialisten in Graduierten- und Promotionsstudium in südkoreanischen Universitäten und die Durchführung gemeinsamer Forschungsprojekte zu aktuellen Fragen der Entwicklung der Medizin und öffentlichen Gesundheit.

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PUBLIC HEALTH IN KAZAKHSTAN

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Introduction: In Kazakhstan, after the collapse of the USSR, a budgetary (state) model of Health Care functioned. Now, this model of the Health Care System does not meet the needs of the population. The reasons: amount of people (increased the birth rate) and the increase in the percentage of the elder people (in Kazakhstan, the proportion of elder persons is 7%); the growth of chronic noncommunicable diseases requires strong funding of the system, and in the formation of a more effective Health Care Model.

Objective: To carry out a comparative analysis of ongoing reforms in the Health Care System of Kazakhstan with the Health Systems of the developed countries of the world to determine priorities and optimize programs for reforming the Healthcare sector.

Results: In developed countries, since 1978 (after the adoption of the Almaty Declaration) there has been a significant breakthrough in the health protection, through the establishment of public health systems with a strong Primary Health Care (PHC). In public health systems, not only the state responsible for protecting the health of the population, but also by employers and citizens, the basis of such systems is social insurance. In more than 30 countries the system of social insurance, including compulsory medical insurance implemented as the basis for protecting the social interests of citizens in the protection of health.

In addition to the differences in the model of health care and the existence of a system of compulsory social health insurance (CSHI) in developed countries, preventive medical care prevails. PHC in developed countries is a priority and accessible, and well-funded, more than 70% of the amount of funding is directed to the PHC level, which

provides the population with almost all types of medical care at the level of family doctors (general practitioners). In addition, for more than 20-30 years, European countries (Finland, Germany, England, France, etc.), the United States, Canada have accumulated considerable experience in the management of chronic non-communicable infectious diseases (CNCD) and their prevention. In the Republic of Kazakhstan, in accordance with the best international experience, public health services (PHS) and the Law on Mandatory Social Health Insurance (OSMC) have been adopted. In order to implement the main activities of PHS and CSHI, the functions of the sanitary and epidemiological service will be expand to ensure healthy environmental conditions (air, water, soil, food, etc.) through sanitary-epidemiological surveillance and monitoring, including control of infectious diseases and CNCD, including for mental health problems and injuries. In addition, the function of PHS will be the coordination and expansion of intersectoral cooperation aimed at protecting and strengthening the health of the country's population. Primary Health Service activities will closely integrated with PHC.

The second important area for the transition to the Public Health System in the Republic of Kazakhstan is the implementation of the system of Mandatory Social Health Insurance in July 2017, as the main mechanism for implementing the principles of joint responsibility of the state, employer and citizen for their health.

Thus, in Kazakhstan, there are significant reforms in the Health Care System, the model of the industry is changing and formation of public health system based on the implementation of compulsory social health insurance and public solidarity.

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MYOCARDIUM STATE AND VENTRICLE PERFUSION FEATURES IN CIVIL AVIATION FLYING PERSONNEL

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Background of the study: The topicality of studying the peculiarities of cardiopathology with perfusion disorders, hemodynamics and contractility of the myocardium in flying personnel of civil aviation is explained not only by the professional risk, but also by the fact that the lives of hundreds persons depends on the health of pilots.

Methodology: Perfusion scintigraphy with radioactive technecium and MIBI kit was performed in 26 pilots. Study group involved male persons at the age of 42-57 without clinical and/or laboratory evidence of myocardium infarction in catamnesis. All patients had above 20-year work experience.

The investigation was done on "SPECT-camera ("Mediso, Hungary). The obtained results and data processing were performed in accordance with IAEA appropriate protocols.

Two-stage tomography was applied: the first step was before pharmacological load and the second step was after administration of nitroglycerine 2 tablets under the same conditions.

Results:

1. In all the examined subjects perfusion disorders of this or that degree were revealed.
2. In 16% of patients perfusion disorders on all walls of the left ventricle were recorded.
3. The most vulnerable sites were: apical septum and anterior-lateral walls of the ventricle.

Appropriately, the reduction degree varied from 35% to 65%, while the number of segments made 4-5.

4. In 90% of patients features of concentric hypertrophy were revealed; in 10% signs of eccentric hypertrophy were observed.
5. The pharmacological load revealed the signs of redistribution in 24 patients; latent defects in 57%, and signs of "steal syndrome" in 36%.

Conclusion: Taking into account all the methods of investigation (roentgraphy, echocardiography, radio nuclide tomography) we consider it necessary to emphasize that in 76% of subjects depression of contractile function, strength and duration of algesia did not coincide with the degree of perfusion disorder.

Thus, study on myocardium perfusion in civil aviation pilots with the work experience above 20 years revealed disagreement between clinical and laboratory data.

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FEATURES OF A NARROW FEMALE PELVIS

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In the course of the study, it was established that the measurement of the lumbosacral rhombus plays an important role in the evaluation of the narrow pelvis. In well-built women with normal pelvic dimensions, the lumbosacral rhombus has the shape of regular square placed on one of the corners. The diagonals of a rhombus are almost equal (approximately 10.5-11 cm). With a uniformly compressed pelvis, these dimensions will be proportionally reduced.

With a transversely narrowed pelvis, the transverse diagonal decreases and the vertical diagonal elongates. The rhombs acquires a vertically elongated shape.

With a flat and especially the flat rachitic pelvis is marked shortening of the vertical diagonal by reducing the location of the upper corner of a rhombus, sometimes up to the level of the transverse diagonal.

The plane of the inlet has a non-transversely oval, but round or longitudinally oval.

The sacrum is elongated, flattened and thickened, which reduces capacity and increases the height of the pelvis. In this case, the transverse dimension of the lumbosacral rhomb is reduced.

Analysis of clinical data showed that the degree of narrowing and the shape of the pelvis influence the prognosis of birth. The shape of the anatomically narrow pelvis defines the mechanism of insertion and presentation of the fetus, and especially its movement through the birth canal. Thus, for planning of birth it is necessary to consider the shape of the pelvis of women and be able to predict the degree of narrowing.

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INFECTION IN THE RESUSCITATION AND INTENSIVE CARE UNIT

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Aim: to detect the rate of nosocomial infection in a RICU

Materials and Methods. The work is based on clinical material taken from patients in RICU of Tula Regional Clinical Hospital gathered for microbiological study in 2010-2012. The criterion for inclusion was development of infectious process not earlier than 48 hours after hospital admission. The main diagnoses for collecting were ventilator-associated pneumonia, purulent tracheobronchitis, peritonitis and sepsis. Totally, 462 samples of various clinical materials were studied: blood, tracheal swabs, urine, swabs from surgical wounds, bile, cerebrospinal fluid, swabs from wound surfaces, pharyngeal and nasal swabs.

Results: In the microbial landscape of the hospital-acquired infection in the RICU. Gram-negative bacteria distinctly prevailed, its specific weight at 68,89%. As a leading pathogen P. Aeruginosa with a specific weight of 31,7% was revealed. The frequency of detection of K. Pneumoniae was 2,5%, whereas E. Coli - 17,4%. Gram-positive bacteria was represented mostly by S. Epidermidis – 17,4% and S. Aureus - 8% among the acquired bacterial cultures. Candida albicans was found in 3,7% cases. P. Aeruginosa was detected in 43% of the respondents as major infectious agents of the endotracheal aspirate in patients with purulent tracheobronchitis and ventilator-associated pneumonia. Incidence of Acinetobacter was less common – 24%, Enterobacter – 17%, E. Coli – 12,5%, S. Epidermidis – 10%. It is worth mentioning that 20% of cases were associated with microbial associations of two microorganisms. The growth of P. Aeruginosa in postsurgical wound samples taken from the patients with peritonitis and pancreonecrosis amounted to 27%. S. Epidermidis was detected with the same frequency. Evidently lower was the incidence of Enterobacter and E. Coli –15%. S. Aureus and Acinetobacter was found in 8% of the cases.

In regard to infection of skin surfaces and soft tissues including bedsores as the major

causative agents S. Aureus and E. Coli were reported, each of them accounted for 33% of cases. It should be mentioned that for studying the wound swabs, Enterobacter and S. Epidermidis were often grown – 17% of each one. The distinguishing feature of urine cultures acquired from RICD patients was detected as a high proportion of fungal flora and pseudomonas aeruginosa – both at 21%. Gram-negative flora was predominately represented by E. Coli – 43% and K. Pneumoniae, taken from 7% of the respondents as well as Acinetobacter. In 7% of the cases associations of 2 cultures were detected: Clostridium perfringens and Corynebacterium JK. During the study of blood cultures only one case of identification of S. Epidermidis in blood was reported.

Conclusions. The study of causative agents of nosocomial infections in microbial landscape shows the prevalence of gram-negative flora (75% of the found strains). However, in most cases as etiologically meaningful microorganisms were detected: P. Aeruginosa – 50%, in equal proportions E. Coli and S. Epidermidis – each of them at 17%; in lower proportion - Enterobacter (14%) and Acinetobacter (11%). In 14% of cases the cluster of microorganisms was found.

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CYTOKINE PROFILE OF CARRIERS OF DIFFERENT GENOTYPES FOR THE -511A>G IL1B GENE (RS16944) POLYMORPHIC MARKER, ASSOCIATED WITH THE RISK OF NON-ALCOHOLIC STEATOHEPATITIS

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Interleukin 1 beta (IL1β) is one of the main proinflammatory cytokines that mediates the inflammation process at different stages of the pathogenesis of the majority of chronic liver pathologies (Szabo, Csak, 2012). Earlier, we found an association of the -511A>G IL1B gene polymorphic marker with the development of non-alcoholic steatohepatitis (NASH). We showed that carriers of the mutant allele (G allele) for this marker have a significantly increased risk of NASH development, OR = 1.91 (1.09, 3.33). The carriage of G allele is a predictor of an increase in the level of cytolysis indicators in the blood (Kurbatova et al., 2016). However, the mechanisms by which this mutation can contribute to the development of NASH have not been studied in practice.

The aim of the study was a comparative analysis of the cytokine profile in healthy donors and patients with NASH, depending on the genotype for the -511A>G IL1B gene polymorphic marker.

Materials and methods. We have examined 48 patients with NASH (age 48.90±1.20 years, 18 carriers of the AA genotype, 30 carriers of the AG and GG genotypes) and

47 donors of the control group (age 47.53±1.14 years, 17 carriers of the AA genotype, 30 carriers of the AG and GG genotypes). The diagnosis was verified on the basis of clinical and laboratory, instrumental studies and histological examination of liver biopsy specimens obtained by blind percutaneous liver biopsy. In all patients viral, alcohol, drug-induced and autoimmune causes of liver injury were excluded. The venous blood was taken prior to the appointment of hepatoprotective therapy. Genotyping was carried out by PCR-RFLP method (Bashour et al., 2013). The concentration of IL1β, TNFα, IL6 and IL10 cytokines in the blood was determined by the method of non-competitive ELISA using the «Sunrise» analyzer («Tecan», Switzerland). Statistic processing of the data was conducted with application of Wilcoxon-Mann-Whitney U criterion and the Kruskal-Wallis variance analysis. Differences were significant at $p<0.05$. The study was carried out on scientific equipment of the equipment centre of IB KarRC RAS.

Results. The concentrations of IL1β, TNFα and IL10 cytokines in the blood of healthy people and patients with NASH did not differ in carriers of different genotypes for the -511A>G IL1B gene polymorphic marker. Significant differences were found in a comparative analysis of the IL6 level in the blood of healthy donors and patients with NASH, depending on the genotype for the -511A>G IL1B gene polymorphic marker. It was shown that healthy carriers of the G allele have significantly lower IL6 concentration in the blood (2.26±0.32 (median 2.10) pg/ml) as compared to carriers of the AA genotype (8.75±2.94 (9,00) pg/ml), $p=0.0448$. Among patients with NASH, carriers of the G allele also have a lower IL6 level (5.90±0.88 (3.89) pg/ml) compared to carriers of the AA genotype (8.90±2.24 (6.21) pg/ml), $p=0.0018$.

According to the data of the analysis of variance, there was a significant effect of the -511A>G IL1B gene substitution on the IL6 level in the blood of healthy donors ($H=4.14$, $p=0.0419$) and patients with NASH ($H=4.03$, $p=0.0423$). The role of IL6 in the pathogenesis of liver pathologies, including NASH, is not unambiguous. This proinflammatory cytokine, on the one hand, can sensitize liver damage by stimulating the progression of inflammation, fibrogenesis and apoptosis of hepatocytes, and on the other hand, has hepatoprotective properties (Braunersreuther et al., 2012). The mechanism of the revealed effect of the -511A>G mutation in the IL1B gene on the level of IL6 in the blood remains unclear. In addition, it is difficult to assess the clinical significance of a decrease in the level of one of the main proinflammatory cytokines – IL6 – in carriers of the mutant allele associated with an increased risk of NASH development.

Conclusion. According to our results, the carriage of the -511A>G single nucleotide substitution in the IL1B gene is probably a predictor of a decrease in IL6 level in the blood, both in healthy individuals and in patients with NASH.

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CLINICAL CHARACTERISTICS OF PATIENTS WITH RHEUMATOID ARTHRITIS: COMPARING THE ROUTE OF ADMINISTRATION OF METHOTREXATE

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Introduction: Methotrexate is currently considered to be an «anchor drug» for the treatment of rheumatoid arthritis (RA). In case of poor tolerance or intolerance to oral MTX, patients should be switched to the parenteral (PE) form before considering alternative options. In patients with high RA activity which requires higher MTX doses (≥ 15 mg/week), it is recommended to begin treatment with the PE form. The bioavailability of oral MTX decreases drastically in doses exceeding 15 mg/week, while switching from the oral to the PE form increases the concentration of the active form of methotrexate - MTX polyglutamate, which has been correlated with a significant increase in MTX efficacy.

The objective of this study was to compare the efficacy of oral and parenteral MTX in RA patients.

Materials and Methods: Thirty-three patients were analyzed retrospectively, with 21 having initiated oral, and 12 having initiated PE MTX. Baseline RA activity was high in the majority of patients, DAS28-ESR = 5.5 ± 1.1. EULAR criteria based on the dynamics of DAS28 index were used for efficacy evaluation. In case of deviation from normal distribution, the median (Me) and quartiles (25;75 percentiles) were calculated.

Table 1 Clinical characteristics of RA patients (n=33).

Options	Number of patients	%
Female / Male	28/5	84,8/15,2
Age of onset (M ± σ), years	47,5 ± 11,5	
Disease duration (M ± σ), years	10 ± 5	
Seropositive for RF	26	78,7
Extra-articular manifestations	12	36,3
Radiographic Stage I/II/III/IV	3/16/9/5	9/49/27/15
Functional class (ACR) I/II/III/IV	4/18/11/0	12/55/33/0

Results:In the group having initiated oral MTX, mean disease duration from the onset until the administration of oral MTX was 7,5 ± 4,5 months. Reasons for discontinuation included adverse effects (AE) (n=13) and lack of efficacy (n=7). Due to tolerance issues, MTX was completely discontinued in patients who developed either Flu-syndrome (n=2), or persistent leucopenia $<3x10^9/l$ (n=1). Three of the patients have remained on PE MTX

as of April 2017. Mean time on oral MTX before efficacy loss was 8±4 months. Mean oral MTX dose by switch time was 12.5 ± 2.5 mg / week.

In the group having initiated PE, mean disease duration from manifestation until MTX administration was 3 months. Disease activity measured as DAS-28-ESR score was 3,65±0,65 in patients receiving MTX until the time of abstract submission, and 3.8 ± 0.45 after further modification of therapy. The reasons for discontinuation were lack of efficacy (n=3) and the occurrence of AE (n=4). Five of the patients have remained on PE MTX as of April 2017. The incidence of AE in both groups was 62% (n = 13) and 33% (n = 4), respectively.

In 15 cases, patients were switched to PE MTX as second-line treatment. No repeated AE were observed in patients after switching. Five of the patients have remained on PE MTX as of April 2017. The level of DAS 28-ESR activity index was 4.17 ± 0.73 in patients receiving MTX until the time of abstract submission, and 4.25 ± 0.65 after further modification of therapy.

Conclusion: One of the important advantages of MTX is the availability of choice of dosage and route of administration (oral vs parenteral), which allows for the personalization of RA treatment. In this study, the use of PE MTX was associated with a significant difference in the mean DAS28 -0.57 [0.44, 0.7] compared to patients who were switched to PE MTX as second-line therapy, including after further therapy modification (DAS28 -0,42 [0,22;0,63]). In the group presenting with extra-articular symptoms (mainly rheumatoid nodules), a more severe course of RA, higher rates of AE, and faster loss of MTX efficiency were observed, which required further therapy modification. For these patients, PE MTX should be recommended as first-line treatment option.

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CLINICAL CHARACTERISTICS OF THE CARDIO-VASCULAR SYSTEM IN CHILDREN WITH CONGENITAL HEART DEFECTS IN THE POSTOPERATIVE PERIOD

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Objective: to study the dynamics of clinical indicators of the cardio-vascular system in children with congenital heart defects during different terms of the postoperative period.

Material and methods: under supervision were 50 children with congenital heart defects with enrichment of a small circle of blood circulation (VSD, ASD, PDA), combined defects and others). According to the length of postoperative period all children were divided into 3 groups: the 1st group composed from the children with a postopereative term up to 1 year; the 2nd group - from 1 to 3 years, the 3rd group –more than 3 years. The operative correction of congenital heart defects made a significant positive impact

on the functional state of the children. In all children an improvement in well-being, an increase of body mass, absence of dyspnea and tachycardia, less intensive or hardly any heart murmurs were reported.

According to ECG signs of hypertrophy of the right heart and left ventricle remained in the first year after operation, in subsequent years they decreased.

X-ray signs of hypervolemia and cardio-megaly persisted during the 1-st year after the operation, followed by more than 3-years the signs of hypervolemia disappeared; the border of the heart was reduced but remained enlarged more than 3 years.

The data of echocardiologic examination showed that in the operated children the size of the right ventricle reduced later in the postoperative period (in the 3rd group) Dilatation of the cavity of the left ventricle was preserved in the first 2 years after operation of the defect. At the time, a decrease in the parameters of non-dynamics (FV -43,5+3,45%) was determined, especially during the first year after the operation with gradual normalization for three years after the operation.

Conclusions: Children with corrective surgery of congenital heart defects cannot be completely healthy and need dynamic long-term cardiac observation.

Clinical improvement in well-being of patients after operative correction of congenital heart defects do not lead to absolute normalization of hemodynamic parameters. Dynamic monitoring of children in the postoperative period should be carried out with obligatory ecocardiologic control.

The presence of dilatation of the left heart divisions and weakened systolic function of the ventricle make cardiologists to consider prescribing drug therapy such as ACE inhibitors and/or aldosterone receptor antagonists.

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THE EFFECTIVENESS OF PREGRAVID PREPARATION FOR PREVENTION OF PRETERM LABOR IN WOMEN WITH INFLAMMATORY DISEASES OF WOMEN GENITAL ORGANS

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The aim of the study was to evaluate the effectiveness of pregravid preparation in the prevention of PR in women with inflammatory diseases of female genital organs (FGMW).

Materials and methods. A prospective study of 167 women in the consultative and diagnostic department of the Tula Regional Perinatal Center (TOPC), which before pregnancy had an FGM. The study was conducted in the period 2013-2015. Formed II groups: I group (n = 85), II group (n = 82).

I group (n = 85) women with pregravid preparation and planned pregnancy, II group (n = 82) women without pre-primary training.

Results and its discussion. In the I group (n = 85), women who underwent pregravid preparation gave birth at the time of pregnancy> 37 weeks 84 (98.8%), with an average gestation period of 37 ± 2. In 1 (1.2%) women, spontaneous abortion occurred in the first trimester of pregnancy. In 53 (62.3%) women, the pregnancy proceeded without complications. Shortening of the cervix according to the ACT (less than 25 mm) in 18-20 weeks was observed in 9 (10.5%) of women. Toxicosis of the first half of pregnancy was observed in 13 (15.2%) women. The clinic of the threat of miscarriage in the period of 16-18 weeks was observed in 5 (5.9%) women, which necessitated their hospitalization. The course of pregnancy was complicated by anemia in 10 (11.7%) of women. Exacerbation of chronic pyelonephritis was observed in 12 (14.1%). Severe preeclampsia at 34 weeks was observed in 1 (1.17%) women. She was delivered in a hospital of the third level. In 6 (7.1%) women fetoplacental insufficiency was observed, polyhydramnios in 5 (5.9%) women, lack of water in 4 (4.7%) women, intrauterine growth retardation in 3 (3.5%) women. During pregnancy, all women continued to take elevator, OMEGA-3.

In the detection of anemia, pregnant women received anti-anemia therapy with iron preparations - within one month, 14 (16.7%) patients with a short cervix and a threat of pregnancy termination received progesterone (morning) up to 34 weeks.

In the II group (n = 82), women with a history of pre-existing medical history of HPV were excluded from the program. At the stage of examination of pregnant women, 7 (8.5%) revealed a microflora, which required anti-inflammatory antibiotic therapy: Streptococcus pyogenes - 1 (1.2%); Staphylococcus aureus -1 (1.2%), Mycoplasma genitalium - 2 (2%), Ureaplasma uirealyticum - 1 (1.2%), Chlamydia trachomatis -2 (2.4%). In 8 (9.7%) women, candidal colpitis was detected, in 1 (1.2%) women bacterial vulvovaginitis, which required the sanitation of the vagina during pregnancy.

Of the women in Group II, 71 (86.6%) gave birth at> 37 weeks, 17 (21.5%) had a pregnancy without complications, 1 (1.2%) had an ectopic pregnancy, 2 (2.4%) - the dead pregnancy in terms of 11 and 13 weeks, respectively, up to 36 weeks of pregnancy (30-35 weeks) gave birth to 8 (10.1%) women. Shortening of the cervix according to TVZUI (less than 25 mm) in 18-20 weeks was observed in 22 (27.8%) of women. The clinic of the threat of miscarriage developed in 32 (40.5%) women. All women with an identified shortened cervix, as well as having a clinic threatened with termination of pregnancy, were prescribed progesterone at a dose of 200 mg for prophylactic purposes and 400 mg of morning pregnancy vaginally with a clinic for the threat of miscarriage. The course of pregnancy was complicated by anemia in 20 (25.3%) women. Exacerbation of chronic pyelonephritis was observed in 14 (17.7%) women, preeclampsia was moderate in 2 (2.5%). Fetoplacental insufficiency was observed in 9 (11.3%) women, polyhydramnios in 7 (8.8%) women, malnutrition in 5 (6.3%) women, intrauterine growth retardation in 4 (5.06%) women. Clinical signs of the threat of abortion: pains in the lower abdomen and lower back, smearing spotting from the genital tract, hypertension of the myometrium -

were in 32 (40.5%) women, they needed hospitalization and inpatient treatment. The average delivery period is 36.5 weeks for this group.

Conclusion. The results obtained showed that the provision of pre-education training for women who have had previous history of inflammatory genital diseases allows reducing the frequency of the threat of miscarriage from 40.5% to 5.9% (OSH-10.6, 95%, CI-3.9-29.5, P <0.001), anemia Pregnant women from 25.3% to 11.7% (OR 2.5, 95%, CI 1.1-5.8, P <0.05), reduce the risk of preterm birth by 8.4 times (OR, 9.4, 95%, CI 1.1

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ENDOPROSTHESIS OF SHOULDER AND ELBOW JOINTS FOR TUMORS OF THE BONE

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Introduction

Malignant tumors of the bone is less than 0.2% of all malignant tumors. Treatment of malignant bone tumors - complex. Surgical treatment of bone tumors is the primary method of treatment. One type of surgery for tumors of the bone is the individual endoprosthesis. Using arthroplasty in cases of malignancy, not only allows you to save the patient's life, but also to support ability to retain a functioning limb.

Purpose of the study

Show the effectiveness of arthroplasty shoulder and elbow joints with bone tumors.

Material and Methods

From 2009 to 2016, joint replacement of the shoulder and elbow joints with bone tumors performed 32 patients. Morphologically met: giant cell tumor - 14 cases metastatic tumors - 8, chondrosarcoma - 5, osteosarcoma - 4, Ewing's sarcoma - 1. Endoprosthesis of shoulder joint with 20 patients, the elbow – 8, diaphysis of the humerus – 4. Implants were used: "Inmed" (Ukrain) and "Valdemar Link" (Germany). The functional outcome of the operated limb was calculated on a scale of MSTS. Quality of life was measured by questionnaire EORTIC-QLQ-C30. The survival rate of patients evaluated by Kaplan - Meier.

Results

Postoperative complications was 9,3%. Tumor recurrence – 3,1%. Limb functional outcome after total shoulder joint - 64% of the elbow - 76% of the diaphysis of the humerus - 82%. The quality of life of patients after total improved from 40 to 80 balls. The total three-year survival rates were: 82,2±0,14%, five-year - 65,8±0,26%.

Discussion

Complications of joint replacement depends on the size of the tumor, the surgical technique of the operation and design of the implant used. The results arthroplasty of shoulder and elbow almost coincide with the results leading onkoortopedicheskih clinics like Meyo (USA). For more effective results of treatment must work to improve the structural implants and surgical techniques.

Conclusion

Endoprosthesis of shoulder and elbow joint is promising surgical treatment of bone tumors of the upper limb due to improved functional outcomes of upper limb and life expectancy of this category of patients.

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RESULTS OF SURGICAL TREATMENT OF TUMORS OF PELVIC BONES

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According to the literature, the proportion of primary malignant tumors of the pelvic bones is from 9% to 15.7% of all malignant bone tumors. Surgical treatment of tumors of pelvic bones is characterized by high trauma, massive blood loss, a high percentage of postoperative complications. At present, there are a lot of controversial questions about the choice of the optimal method of treatment, what role is played by surgical treatment, radiation therapy and chemotherapy in complex treatment for certain histological forms of the pelvic bone tumor. In surgical treatment, disruption of the continuity of the pelvic ring often requires reconstructive interventions to avoid disabling the patient.

Purpose of the study

Show the possibilities of surgical treatment of patients with tumors of pelvic bones

Materials and methods

Surgical treatment of tumors of pelvic bones in complex treatment regimens in 27 patients was carried out. Morphologically metastatic tumors - 16, chondrosarcoma - 2, chordoma - 2, osteogenic sarcoma - 2. Conservative surgical interventions on the pelvic bones in the form of bone-plastic operations with the use of allografts and implants were performed in 16 (59.3%) patients, resection Of the anterior semiring in 7 (25.9%), posterior in 2 (7.4%), expanded surgical treatment in the volume of interiliast-abdominal amputation was performed in 2 (7.4%) patients.

Results

Postoperative complications were detected in 10 (37%) patients. Local relapses were

noted in 5 (18.5%) cases, progression of the underlying disease was diagnosed in 12 (44.4%) patients, 18 patients died within 6 to 12 months, 9 (33.3%) patients were alive within 6 to 48 months without signs of progression of the underlying disease.

Conclusions

Surgical treatment of tumors of pelvic bones depends on the prevalence of the tumor process, the histological form and the response to preoperative treatment.

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TOTAL KNEE ARTHROPLASTY WITH A DEFICIT OF SOFT TISSUES

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Introduction

Endoprosthesis patients primary and metastatic tumors of the long bones is difficult with a deficit of soft tissue needed to cover the prosthesis. Expanding the indications for arthroplasty in these patients is possible thanks to the development of the plastic phase of the operation.

Materials and Methods

From 2009 to 2016, operated on 72 patients with tumor lesions of long bones forming the knee, in the amount of segmental bone resection followed endoprosthesis. The men were 40 women - 32, age of the patients ranged from 15 to 76 years. Morphological forms of cancer: osteosarcoma (26), giant cell tumor of bone (26), chondrosarcoma (7), malignant giant cell tumor of bone (5), fibrosarcoma of bone (4), malignant fibrous histiocytoma of bone (2), Ewing's sarcoma (1) metastatic tumors (1). Achieved knee replacement (when the lesions of the distal femur (45) and proximal tibia (27). It should be noted that 28 patients needed to conduct additional plastic phase of the operation to form an adequate muscle-case cover the implant. We used muscle flaps formed from medial gastrocnemius muscle (27), medial vastus (1). The results of the functional activity of the department operated skeleton determined by us on a scale MSTS. To determine the quality of life of patients after resection of the articular segment of bone tumor and knee joint we used a questionnaire EORTC QLQ-C30, where quality of life is determined in points.

Results

The group of 28 patients, which made plastic surgery stage infectious complications were observed in 1 (3.5%) patient in the remaining 44 patients operated infectious complications were observed in 12 (27.27%) patients. Limb functional outcome in patients who performed plastic surgery phase after resection of the distal femur and knee replacement was 82.2% after resection of the proximal tibia - 78.6%. The quality of life

of patients after knee replacement (questionnaire EORTC QLQ-C30) increased from 40 to 80 points.

Conclusion

Plastic methods with a deficit of soft tissue enhanced indications for knee replacement, reduce the recurrence rate of the tumor, thus improving limb functional results and quality of life of patients.

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AGE FEATURES OF CRANIOMETRIC PARAMETERS OF THE LOWER ORBITAL FISSURE

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The purpose of the study was to identify the age characteristics of the craniometric parameters of the lower orbital fissure.

Age differences of the craniometric parameters of the lower orbital fissure were studied in 67 specially selected skulls of people of different age from the craniological collection of the fundamental museum of the human anatomy department of the Azerbaijan Medical. In the distribution of skulls by age-gender characteristics, a classification was used according to the age periodization of the individual development of man.

The results of measurements of the craniometric parameters of the orbit indicate that the height of the orbit varies from 22.3 mm to 35.6 mm on average (27.5 ± 0.8 mm on average), the width from 25.1 mm to 40.8 mm (average 33.5 ± 0.6 mm), depth from 37.4 mm to 50,2mm (average 43.9 ± 0.6mm). Glaucous index is on average 84.6. Thus, the eyebrows with average width and height (mesozonchia) were determined on the examined skulls. The results show that in the investigated skulls, in most cases (83.5 ± 3.0%), the orbits of medium width are marked. Short eye sockets were noted in 17.6 ± 3.0% of cases. On skulls with a long form of the facial skull, the short form of the orbit is often determined (53.5 ± 9.3%) than on skulls with a broad and medium face.

According to our data, the age peculiarities of the orbit, especially the early postnatal periods of its formation, should be attributed to the relatively large size of its messages. Thus, in newborns, the inferior orbital fissure is equal in length to the length of the length of its lower wall.

According to our data, before the 2-year-old the lower orbital fissure is relatively large. Thus, at this age, the lower orbital fissure is widely open and has a width in the lateral part of 10 mm, in the middle - 5.5 mm, in the medial - 4 mm. Its narrowing occurs at the age of about 5 years, respectively, an increase in the height of the maxillary sinus. In this Upper orbital fissure throughout the entire childhood does not grow in width, but only their height increases, which reaches its final dimensions only by 13-16 years.

In adults, the length of the lower orbital fissure is 30.1-32.9 ± 0.5 mm. The width

of the lateral third of the lower orbital fissure in adults varies from 3.2 to 10.4 mm, the middle third from 2.1 to 8.5 mm, the middle third from 1.4 to 6.3 mm. The anterior edge of the lower orbital fissure is separated from the edge of the orbit by 15-20 mm

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MAIN FEATURES OF PATHOLOGOCAL CHANGES IN THE RAT LUNGS 3 HOURS AFTER CLOZAPINE AND CLOZAPINE-ETHANOL POISONINGS

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The aim of the study: the aim of the study is to distinguish morphological changes in the lungs in case of acute clozapine and combined clozapine - ethanol poisoning 3 hours after the intoxication and to perform morphometric study.

Materials and methods: we conducted a comparative study of histological slides of the lungs of outbreed male rats weighing 290-350 g. The study group 1 included 5 rats treated with clozapine oral dose (150 mg/kg) and decapitated 3 hours after the intoxication. The study group 2 included 5 rats treated with clozapine (150 mg/kg) and ethanol (5 ml/kg) and decapitated 3 hours after drug administration. The group of comparison included intact rats (5). Fisher's ratio test was used to estimate the reliability of the difference between the groups. The presence of the sign was considered to be reliable if the sign didn't appear in one group and appeared in 4 or 5 cases in the other group. Morphometric study was also performed (ten fields of vision for each slide). The following parameters were estimated: the share of the area of alveoli, the share of the area of intraalveolar septi, the share of the area of vessels, the share of the area of WBC, the share of the area of WBC in intraalveolar septi, the share of the area of distelectasis, the share of the area of edema.

Results: no pathological changes were observed in the group of comparison. The signs detected in study group 1 (clozapine, 3 hours) were as follows: increase of WBC number, atelectasis, distelectasis, thickening of intraalveolar septi due to edema, infiltration of intraalveolar septi by WBC.

The signs detected in study group 2 (clozapine, ethanol, 3 hours) were as follows: desquamation of epithelium into the lumen of bronchi, hemorrhages into alveolar septi and alveoli, infiltration of intraalveolar septi by leucocytes, perivascular hemorrhages, distensibility of the lumina of the bronchi, sludge, thickening of the intraalveolar septi due to edema, increase of WBC number, atelectasis, distelectasis.

The share of the area of alveoli was significantly lower in both the study groups than in the group of comparison. The share of the area of intraalveolar septi, the share of the area

of edema, the share of the area of WBC and the share of the area of WBC in intraalveolar septi were significantly higher in both the study groups than in the group of comparison. The share of the area of the vessels and the share of the area of distelectasis were significantly higher in the study group 2 than in the group of comparison.

The share of the area of the vessels and distelectasis were significantly higher in study group 2 than in study group 1. The share of edema was significantly higher in study group 1 than in study group 2.

Conclusion: all these pathological changes along with the results of chemical analysis can be used to diagnose the fact of clozapine and clozapine-ethanol poisonings and the cause of death.

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CLINICAL MANAGEMENT OF PATIENTS WITH COMBINED SEVERE TRAUMATIC BRAIN INJURY

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Objective: To analyze and evaluate the effectiveness and safety of respiratory therapy with the use of high-frequency jet ventilation (sHFJV) in patients with combined severe traumatic brain injury (STBI).

Material and Methods: The study included 38 in-patients of the neurosurgical department RRCEM for the period 2015-2016. The age of patients ranged from 24 to 73 years (mean age - 43,2 ± 14,8 years). By gender: men - 31, women - 7. Patients on scale APACHE II score, ranged from 7 to 31 points (on average - 16,1 ± 4,8 points). The selection of a group of patients was included with (STBI) combined with the existing clinic aspiration, nosocomial pneumonia and related chest trauma. Ventilation in both groups carried out on ZisLine devices (Ekaterinburg), Vela and Savina-300. Carried out a control: hemodynamic, arterial blood gas, intracranial pressure (on devices «TRITON» and «Codman»), respiratory index, X-ray and computed tomography of the chest.

Patients were divided into two groups depending on the ventilatory support techniques. The first group (n = 15) - ventilation mode SIMV with PEEP to 10. In the second group (n = 23) - respiratory therapy was carried out in the sHFJV, and later transferred to a BiPAP mode when $PaCO_2$ level exceeded more than 40 mm Hg. Ventilation in the sHFJV lasted from 2 to 8 hours. After transfer to the traditional ventilation compulsorily installed PEEP.

The main criterion for inclusion in the study was the combined trauma to: violation of the carcass of the chest and lungs; complicated by hemo- or pneumothorax; fracture of more than 4 ribs; respiratory insufficiency II-III degree; level of consciousness by GCS for at least 9 points; reduction of respiratory index less than 200 mm Hg. All patients were operated on rib fixation method by RRCEM.

Dynamics of respiratory system during ventilation controlled - before, during and after the selected mode. Before the start of ventilation in both groups PaO_2 / FiO_2 - 150 ± 54 and Cs - 28 ± 3, 4 has no different. At the time - in the first group, PaO_2 / FiO_2 - 157 ± 34, Cs - 38 ± 4,4, in the second group, PaO_2 / FiO_2 - 192 ± 2.8, Cs - 50 ± 6,4, and after - in the first group, PaO_2 / FiO_2 - 167 ± 54, Cs - 41 ± 6,4, in the second group, PaO_2 / FiO_2 - 264 ± 4,2, Cs - 67 ± 2,4. Through analysis of controlled cerebral parameters, there was a decrease Cerebral Perfusion Pressure (CPP) (64,4 ± 1,3 mm Hg) and increased intracranial pressure (ICP) (20,6 ± 0,7 mm Hg) when the second group showed a decrease ICP (16, 8 ± 2,7 mm Hg), and the optimal CPP (68,0 ± 2,8 mm Hg), which had a positive impact on subsequent hemodynamics, and later on the X-ray tests of the patient. The average time spent on the ventilator: in the first group - 14 ± 2 days, the second group - 7 ± 1 days.

Conclusions: The use of external fixation of ribs and respiratory support in patients with STBI combined with the use of sHFJV has had a minimal effect on cerebral blood flow and improve respiratory dynamics, which in forward helped to reduce the stay in the intensive care unit for 3-5 days.

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DIRECT AGE-STANDARDIZATION OF DIABETES MELLITUS IN KAZAKHSTAN

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The incidence of diabetes mellitus (DM) has been increasing on a global scale as well as in Kazakhstan. In 2015 the number of people with diabetes has amounted to 422 million. Since 1980, the prevalence among adult population has almost doubled, from 4.7% to 8.5%. In the Republic of Kazakhstan in 2004-2014, the registered number of patients with DM rose more than twice: from 114,355 to 261,451 people. An estimated number of patients with DM exceeds 500 thousand people. Type II diabetes prevails and accounts for 90-95 cases out of 100 people with diabetes.

To compare DM incidence in different regions of Kazakhstan, we need to analyze existing age-structure differences. To do this we have applied the method of direct standardization. The purpose of the study is to compare crude and standardized cumulative incidence of DM in different regions of Kazakhstan and demonstrate the practical value of standardization in the analysis of morbidity and prevalence.

Materials and methods. Age-specific rates of DM incidence were obtained from each region of Kazakhstan. The structure of the total population in Kazakhstan was used as a standard population. Age-adjusted estimates were calculated by applying observed age-specific rates to the standard population, i.e. the proportions of age groups in the standard population were multiplied by respective age-specific rates of DM and then all these

products were summarized. As a result, the direct standardization eliminates influence of age difference, which is considered as a confounder. To get distribution of the population by age groups, we used demographic data from the State Committee of Statistics.

Results. The highest values of age-adjusted cumulative incidence are observed in Mangistau oblast of Kazakhstan and in Astana city (1979 and 1885 per 100 000 population respectively), while crude rates in these areas are below the national average.

Conclusion. The standardization of the cumulative incidence of diabetes mellitus has significantly changed the order of the regions sorted by this indicator. There are still significant regional differences that are remained after adjustment by age. This can be explained by the factors that the regions differ from one another, e.g. climate, nutrition habits, ethnic composition, DM detection etc. To study these and other factors, further research is needed.

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FEATURES OF MICROCIRCULATION IN SOME PATHOLOGIES OF THE LIVER

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The study showed that, at the liver cirrhosis and chronic hepatitis is observing the irreversible diffuse process characterized by fibrosis, formation of parenchymal nodes and the restructuring of the microvasculature of the liver. Sinusoids are the main structural and functional component of hepatic microcirculation and their condition determines the function of the liver as a whole.

The progression of cirrhosis is associated with the merging of the sinusoidal blood flow and compensatory capillarization of the hepatic parenchyma. Hepatic dysfunction and portal hypertension lead to generalized vasodilation, a reduction in peripheral vascular resistance, and intraorganic venous congestion.

The increased levels of circulating vasodilators entering the systemic circulation via network of natural and pathological portocaval shunts, as well as the decreased sensitivity of vessels to endogenous vasoconstrictors is determined.

Portal hypertension and systemic vasodilation contribute to the formation of new blood vessels, as arterial – capillarization and venous – anastomoses between the portal vein and venae cavae systems. The result of disturbance of the hepatic microvasculature is a progressive decrease in the number of sinusoids, formation of intrahepatic portocaval shunts and the development of the intrahepatic form of portal hypertension.

Thus, violation of the microvasculature of the liver is the primary link in the pathogenesis of diffuse liver disease with subsequent transformation into cirrhosis and the development of extrahepatic complications.

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AGE PECULIARITIES OF THE AREA OF THE PTERYGOMAXILLARY FISSURE

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The aim of the research was to investigate the changes in the area of thepterygomaxillary fissure in different age groups. In this study 120 certificated human skulls preserved in fundamental museum of Department of Human Anatomy of AMU were used.

Photometric method and making polymer preparations of skulls were used.

The results of the research showed that there were statistically insignificant differences between the parameters of respective parts of pterygomaxillary fissure in male skulls in I and II mature age periods. This feature is increased in the left side in comparison to the right side in elderly and senile age periods ($p<0.05$).

The comparative analysis of the results obtained for pterygomaxillary fissure between males of similar age groups revealed that the averagevalue of the mentioned parameter dominated in left side in elderly period compared to II mature age ($p<0.05$). Thus, in elderly period of age the area of pterygomaxillary fissure ranged from 64.4 mm^2 to 103.0mm^2 in left side and from 5.8mm^2 to 103.0 mm^2 in right side showing mean numbers of 97.5±5.9 mm^2 and 81.0±4.0 mm^2, respectively ($p<0,001$). However, in the age period of II mature age the mentioned parameter ranged from 60.3 mm^2 to 108 mm^2 in right side and from 56.8 mm^2 to 102 mm^2in left side(86.0 mm^2 and 78.5 mm^2, respectively).

The comparison of pterygomaxillary fissure area in females of different age groups revealed that this feature dominated in left side like in males. However, the results for I mature age (75.0±4.8 mm^2 and 92.0±5.7 mm^2, $p< 0.05$) andelderly periods (54.0±2,9 mm^2 and 72.5±4.9 mm^2, $p<0.01$) were statistically more significant.

The comparative analysis of the results obtained for pterygomaxillary fissure between females of similar age groups revealed that the area of the fissure on both sides in I mature age and elderly periods of age (75.0±4.8 mm^2 and 92.0±5.7 mm^2; 76.5±6.4 mm^2 and 88.2±5.7 mm^2) were remarkably larger than that in II mature age. Moreover, the results showed that the area of the fissure on both sides were significantly larger in elderly period of age (76.5±6.4 mm^2 and 88.2±5.7 mm^2) compared to senile period (54.0±2.9 mm^2 and 72.5±4.9 mm^2).

In conclusion, the comparative analyses of pterygomaxillary fissure area parameters both between sides and different age groups demonstrated that the respective parameters in males in II mature age and elderly age periods were significantly larger in left side compared to right side ($p<0,05$). In females, the area of fissure in I mature age and elderly age groups dominated in left side. Furthermore, the area of the fissure in I mature age and elderly age periods were larger than the same parameters of II mature age.

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MORPHOLOGICAL CHANGES OF THE GLANDS OF URINARY BLADDER OF RATS AFTER EXPERIMENTAL INFLUENCE OF VARIOUS BALNEOLOGICAL FACTORS

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By microscopic methods of gland have been investigated at 60 (30 rats – experiment, 30 – control) genitally mature pedigreed rats-males 3-4 monthly ages, weight of a body to the experiment 180-200 gr. The rats received iodide-bromine, weac-mineralized bituminoid and strong sulfide baths. Aim of investigation was a detection of structural changes of rat's urinary bladder glands in the experiment after course influence of various balneological procedures. Balneological procedures carried out in strict compliance with the terms accepted in balneology. Changes of lymphoid formations of rat's urinary bladder after iodobromic and bituminous influences show the increasing of glands. After influence of the strong sulphidic procedures is observed the "morphological regression" of rat's urinary bladder glands, that is very much guards, considering prevalence of these procedures in practice of curortology.

Course influence organic bituminoid and iodine-bromine baths the same influences structural characteristics of the rats urinary bladder glands, leading to increase in a thickness in 1,2-1,4 times and the areas of alveolus of glands in 1,3 times, quantities of alveolus in 1,3-1,7 times, its areas on a cut, to increase in a share of a parenchyma as a part of gland, to expansion excretory duct apparatus.

Course action of strong sulphidic baths leads to structural regress of the rats urinary bladder glands – to reduction of a thickness in 1,3-1,4 times and the areas of alveolus, quantity of alveolus in 1,3-1,8 times, decrease in a share of a parenchyma.

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THE PREVALENCE OF POSTOPERATIVE COGNITIVE DYSFUNCTION AFTER OFF-PUMP CARDIAC SURGERY

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Background: Postoperative cognitive dysfunction (POCD) was first described more than six decades ago, but still there is no consensus on diagnostic criteria, etiology, pathogenesis, prevention and treatment methods. In most cases POCD is transient, but still some patients suffer from persistent cognitive impairment which is associated with increased length of hospital stay, early withdrawal from labor market and higher mortality.

Available data on the prevalence of POCD after cardiac surgery is very diverse from 20% to 90% upon discharge and up 20% 3 months after surgery.

Objective: to investigate the prevalence of short-term and long-term POCD after off-pump coronary artery bypass grafting (CABG) surgery.

Methods: psychometric testing was performed in 230 (mean age 63.5±8.2) patients before, 10days and 6 months after the surgery. We used following tests to assess cognitive capacity: auditory verbal learning test (AVLT), digit span test (DST), digit-letter substitution test (DLST), stroop test and trail making test (TMT). A 20% or more decline in two or more tests in comparison to preoperative test results was declared as POCD. Patients received similar anesthesia, postoperative care and were operated by the same surgical team.

Results: the prevalence of POCD after 10 days was 31.7% (73 patients) and 9.1% (21 patients) after 6 months. When comparing patients who developed POCD with those who did not we found the former were older (69.2±8.7 vs 61.1±10.3 years; $p<0.001$), had lower education level (13.7±2.1 vs 10.6± 2.4 years; $p<0.05$) and had longer surgery duration (250.4±12.2 vs 232.1±15.9 minutes; $p<0.05$). The most affected cognitive domains were long term memory (AVLT) and executive function (TMT) and least affected – working memory (DST) and selective attention (stroop test).

Conclusion: in our prospective study the prevalence of long-term POCD after cardiac surgery was slightly less (7%) in comparison to available data (from 9% to 20%). It might be due differences in psychometric testing and interpretation of its results among authors. Advanced age, low cognitive reserve (low education level) and long duration surgeries are linked with incidences of POCD.

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ASSESSMENT OF POPULATION OPINION IN REGARD TO DOCTOR-PATIENT RELATIONSHIP

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Introduction. To date self-medication is widely spread among population of the Republic of Kazakhstan. One of the main causes of self-medication is lack of trust between patients and doctor.

The aim of the current research is to study respondents' opinion dealing with relationship between patients and doctor; also analyze respondents' opinions on prescription of antibiotics by doctor, and patients' response to this prescription.

Material and methods. To achieve the settled goal we used a standardized questionnaire, which was developed by Karolinska Institut (Sweden). The study was held among 277 respondents in polyclinic N1, polyclinic N3 and polyclinic "Vita".

Results and Discussion. Study of respondents' age is showed that the most common age

was 21-30 (32,1%), 28,41% of respondents were in their thirties, 17,71% of respondents were in age between 41-50, while 9,96% respondents' age was between 51 and 60, 7,75% of respondents were in age between 61-70, 3,32% of respondents were in their seventies, 0,74% respondents' age was 20 years. The gender distribution was as follows: 21,3% men, 78,7% women.

According to respondents, 78,97% of them trust doctor's decision when he/she prescribes antibiotics. During the study, it was revealed that 32,47% respondents agreed with the statement that doctors often prescribe antibiotics because the patient expects it, however 52,77% of respondents considered that the above-mentioned statement is false, and 14,76% of surveyed respondents did not know what to say. In the process of research questionnaires, it was identified that 68,27% of respondents thought that doctors often take time to consider carefully whether antibiotics are needed or not. 76,75% of respondents claimed that doctors often take time to inform the patient during the consultation how antibiotics should be used. According to respondents, 38,75% of them knew if he/she needs treatment with antibiotics before appointment with the doctor or not. In conclusion, it was read the statement that doctor who does not prescribe antibiotics when the patient thinks s/he should is a bad doctor, with these assertion agreed 9,96% of respondents, while 77,49% did not agree and 12,55% of respondents did not know whether to agree or not.

Conclusion. Above-mentioned results clearly indicate that there is a lack of trust between patients and the doctor. Therefore the people in Kazakhstan often resort to self-medication, which might worsen the outcome of disease. To solve this problem, doctors should treat patients more carefully, master communication skills and update their knowledge.

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THE VALUE OF PROGNOSTIC FACTORS TO DETERMINE THE TACTICS OF TREATMENT OF PATIENTS WITH BREAST CANCER, INCLUDING METASTATIC

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Introduction

Breast cancer (BC) is one of the main problems of modern clinical oncology. Today, next to the standard prognostic factors (clinical and pathological staging of disease, tumor size, status of regional lymph nodes) and standard prediktivnimi factors (status of steroid hormone receptors, the expression level of HER-2/neu), the researchers also

explored new and innovative markers negative prognosis breast cancer, which is the basis for correcting regimens to enhance efficacy of systemic therapy for patients at high risk of tumor recurrence and metastases.

Materials and methods

The study was performed in the treatment of 33 patients with breast cancer. Detects the presence of disseminated tumor cells (DTC) in the bone marrow (BM) and peripheral blood (PB) and biological cytokine activity: tumor necrosis factor (TNF), and macrophage colony stimulating factor (M-CSF) in the BM and PB patients and conducted us between TNF levels and C-reactive protein in the PB and the erythrocyte sedimentation rate (ESR) in patients with breast cancer have a PB in order to establish a correlation between these indicators and the current nature of the tumor (remission or progression). In view of these indicators was conducted in patients appropriate treatment (chemotherapy, radiation therapy, bisphosphonates, antibiotics, and nonsteroidal anti-inflammatory drugs (NAID).

Results and discussion

The study showed that the main factors of medication, which led to a decrease in performance of ESR and C-reactive protein in the PB are antibiotics and NAID, which have little impact on the dynamics of reduction of TNF and M-CSF, and the use of bisphosphonates significantly reduces TNF levels to the PB. This study shows that patients with breast cancer, including metastatic bone lesions, conventional treatment (chemotherapy, radiation therapy and bisphosphonates) must be supplemented by anti-inflammatory therapy (antibiotics, NAID).

Conclusion

The presence of the DTC in the BM in patients with breast cancer, high levels of TNF and M-CSF the BM and PB indicates a high risk of disease progression and the emergence of metastases.

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APPLICATION OF MEDICAMENTAL BLOCKADE AND ELECTRIC STIMULATION FOR CONSERVATIVE HERBAL TREATMENT OF LUMBAR INTERVERSAL DISCS

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There are known surgical ways of treating herniated intervertebral discs. The main common drawbacks of the above described methods are: the use of active operational tactics associated with the use of general anesthesia or local anesthesia; realization of cuts of skin, subcutaneous tissue, muscles, intervertebral ligaments apparatus, fibrous ring structures and

pulpous nucleus of intervertebral discs. Carrying out a complex of these manipulations can lead to the development of postoperative complications leading to disability and loss of ability to work of patients; An increase in the cost of treatment, since the conduct of surgical treatment involves hospitalization of the patient, the implementation of preoperative preparation, the most operational treatment and postoperative period. In addition, after the discharge of patients from the hospital, a long rehabilitation period is required to restore work capacity.

The purpose of our work is the development and practical application of the method of conservative treatment of herniated lumbar intervertebral discs. Scientists of the Altai Territory have developed a method of conservative treatment of herniated lumbar intervertebral discs (patent for invention of the Russian Federation No. 2368401, authors: Oleynikov AA, Remnev AG, 2008). The essence of this method lies in the fact that the treatment of herniated lumbar intervertebral disks involves the conduct of a drug pain blockade and electrical stimulation of the site of injection of an anesthetic with a pulsed electric current. The method of treatment of herniated lumbar intervertebral discs is as follows. The patient is in the supine position. They perform an analgesic blockade in the pathology of the spinal cord and spine of the region of the intervertebral foramen of the lumbar vertebrae of the corresponding segment with the presence of a herniated intervertebral disc. After this, the syringe is separated from the cannula of the needle, while the needle remains in the patient's body. Then the anode is attached to the needle. A surface electrode is installed on the posterior surface of the tibia, which is connected to the cathode. After connecting all the electrodes, electric stimulation with a pulsed electric current of 50 Hz, a current of 10-15 mA, an electric pulse duration of 0.2 ms, a duration of the procedure of 8-10 minutes daily, and a course of treatment of 10-12 procedures are performed.

Over a long period from 2007 to 2015, this method was used to treat more than 2,000 patients with herniated lumbar intervertebral disks at the age of mainly 23 to 58 years. When all patients were addressed, neuroimaging (MRI or CT), ultrasound examination of the lumbar spine for the detection of herniated lumbar intervertebral discs was performed. In the clinical picture, the pain syndrome predominated in various degrees of severity, as well as motor and sensory disorders at the level of the lower limbs. As a result of the treatment, the majority of patients achieved a stable positive (confirmed with further dynamic studies) positive result. Up to 4% of patients subjectively did not show any improvement, while the results of control studies indicated a decrease in the severity of hernial protrusion. In other patients, the positive effect was less, or the effect of the treatment lasted less time, and additional courses of treatment were required. The use of this method of conservative treatment of herniated lumbar intervertebral disks did not reveal any cases of worsening of patients, both clinical and morpho-functional.

Thus, the use of a new method of conservative treatment makes it possible to provide treatment for patients with herniated lumbar intervertebral discs. The result of this treatment is the elimination of pain syndrome, a decrease in the volume of hernial protrusion, restoration of radicular conductivity.

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FUNCTIONAL STATE OF AFFERENT PATHWAYS OF THE CENTRAL NERVOUS SYSTEM IN PATIENTS WITH A CARDIOLOGY PATHOLOGY

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In the spinal cord, there are a number of neurons that give rise to long ascending pathways to various structures of the brain. The spinal cord receives a large number of descending tracts, formed by axons of nerve cells, localized in the cortex of the cerebral hemispheres, in the middle and oblong brain. All these projections along with the paths connecting the cells of different spinal segments form a system of conducting paths formed as a white matter, where each path occupies a definite position.

The preliminary studies of the functional state of the afferent conduction pathways of the spinal cord in patients with cardiac pathology showed that conduction of excitation along the afferent pathways of the spinal cord (APSM) is more often satisfactory in patients with a certain pathology of the heart (Remnev A.G., 2007). Modern diagnostics of diseases of the nervous system gives preference to non-invasive, safe and painless diagnostic approaches. One such method is magnetic stimulation (MS). The MC method has been used in the diagnosis of diseases of the nervous system since 1985. To date, the functional state of pyramidal tracts is traditional for the application of MC method.

The purpose of the research: determination of the FS afferent pathways of the brain stem (APSGM). Twenty-seven patients with ischemic cardiomyopathy with hypertension (the first group) and 34 patients with chronic ischemic heart disease (the second group) aged from 47 to 62 took part in the study. The control values of FS APSGM were determined as a result of preliminary studies (Remnev AG, 1999-2004). FS APSGM was determined by diagnostic low-frequency magnetic stimulation (MC) of the cervical spinal cord, as well as the occipital region. Methodical basis was the author's method - a method for diagnosing the functional state of the brain stem (Patent for invention 2122827, Russian Federation, December 10, 1998; Remnev A.G., 2000). In this case, a transcutaneous MC of the spinal cord is produced in the vertebrae of CV-CVI. As a result, the MS registers the motor responses of the circular muscles of the eye. The latent period of recorded motor responses is measured. Results of the research. In the study of FS APSGM, the latency of MOGMG in patients of Group 1 averaged 25.1 ± 0.5 ms.

In patients of the 2nd group, the results were different. In 18 patients (52.9%), the latency index of MHMM in MS was not significantly different from the values obtained from the same ones obtained in the study of healthy and group 1 patients - 24.8 ± 0.4 ms. In 16 patients (47.1%), changes were recorded in the form of an increase in the latency

of the MOGMG to 28.3 ± 0.6 ms. Of these, 10 patients (62.5%) had bilateral changes. Complaints related to the conduct of the study (implementation of the IPU) were not presented.

Thus, in patients with ischemic cardiomyopathy with hypertension, excitation by APSGM is satisfactory, and in patients with chronic coronary heart disease, signs of impaired excitation by APSGM were recorded in 47.1% of cases. In most cases, these changes were two-sided. This observation allows us to expand the diagnostic range of the MC method and discuss in the future some issues of the pathogenesis of cardiac pathology, in particular, the causes of impaired excitation of APSGM in patients with coronary heart disease.

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