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CLINICAL MEDICINE

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THE PECULIARITIES OF FORMATION OF TOPOGRAPHY OF TRANSVERSE PART OF LARGE INTESTINE IN NEWBORNS

The study of the transverse colon in newborn cadavers, we have seen four of its main provisions. The first position (6 products) right colon bend under the liver, and the average department and directed obliquely left bend down under the lower edge of the liver and gastric cardia ahead. In the second (5 cases) – left and right bending were placed under the lower edge of the right and left lobe of the liver, respectively, and the cross section arched appeared from under its lower edge. In the third (3 cases) the upper edge of the liver intestine was covered all over, and the lower – appeared from under its lower edge. In the preparation of one newborn transverse colon was entirely located under the liver. All four positions that we observed had a particular severity, that could mark the different values approach the lower edge of the liver and the magnitude and angle of the arc passing transverse colon. Two extreme positions (low and high) can occupy the transverse colon in relation to the length of the body of the newborn. The distance from the lower edge of the most gut hanging down to the pubic symphysis varied in large limits from 30,0 to 72,0 mm. In 3 preparations, we observed its extreme positions: one, it was 10,0 mm. and two – reached 85,0 mm. With respect to the navel, the transverse colon was mainly (11 products) to 12,0-21,0 mm above the navel. The two drugs, this distance was 3,0 and 4,5 mm. In two cases the lower edge below the navel 6.0 and 9.0 mm, respectively. Dimensions of the transverse colon had variant features. Yes, its length ranged from 115,0 to 265,0 mm and only in some cases (3 cases), it reached 102,0 and 312,0 mm. In the study of the degree of filling of the intestine, attention is drawn to the fact that 10 specimens was crowded but it left bend, and 5 observations – it was filled with more or less evenly. Overcrowding left bend and greenish – brown intestine can explain the origin and direction of meconium. Turning intestine ranged from 7,0 to 20,0 mm. The trans verse colon is quite moving. This property can be explained by its presence long mesentery, the amount of which was from 32,0 to 74,0 mm.

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THE EFFICACY OF ADJUVANT THERAPY OF EOSINOPHILIC ESOPHAGITIS IN CHILDREN OF SCHOOL AGE

Eosinophilic esophagitis is a recently recognized but expanding disorder characterized by antigen-driven eosinophil accumulation in the esophagus. Symptoms frequently mimic those of gastroesophageal reflux disease, but the diseases are distinct in their histopathology, gene expression signature, response to therapy, hereditary risk, and association with allergies. Clinically, EoE is characterized by symptoms of esophageal dysfunction. Pathologically 1 or more biopsy specimen must show eosinophil-predominant inflammation. Multiple biopsy specimens must be obtained from the proximal and distal esophagus. The diagnosis is considered if 15eosinophils per high-powered field (eos/hpf) are detected in mucosal biopsies.

The study involved 44 children with suspected EoE, endoscopic and morphological diagnosis was confirmed only in 25 of them, which formed the main group. The control group consisted of 19 children who were morphologically diagnosed peptic reflux esophagitis. Children of the main group received elimination or hypoallergenic diet, Levocetirizine and probiotic based on Lactobacillus reuteri for one month. Children of the control group received standard antisecretory therapy and elimination or hypoallergenic diet.

After the treatment we received unidirectional change in endoscopic and morphological parameters in both groups. Thus, multiple whitish raid that was identified during the initial endoscopy regressed completely in 72 % of children of the main group and 63% of children of the control group. The number of eosinophils in the esophageal mucosa biopsy decreased in the two groups, particularly in the study group it was 4,4±1,6 eos/hpf in contrast of 17,28±2,37 eos/hpf at baseline and in the control group 1,12±0,88 eos/hpf in contrast of 3,28±1,768, respectively. Eosinophilic microabscesses and degranulation of eosinophils regressed at all. Hyperplasia of the basal layer of the epithelium and intercellular edema were kept in 28 % and 20% of biopsies, respectively.

It was established that the use of antihistamines and probiotic based on L. reuteri in the age dosage with elimination or hypoallergenic diet in school-age children with morphologically verified diagnosis of eosinophilic esophagitis significantly improves the disease and improves endoscopic and morphological parameters of the disease.

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INSULIN RESISTANCE AND LIPID METABOLISM IN PREMENOPAUSAL WOMEN

It is known that control of lipids'metabolism and carbohydrates in the body, ander the influence of female sex hormones, accelerating lipolysis and suppression the synthesis of lipid fractions.

That the study of lipid metabolism depending on the involutive processes in the ovaries was conducted only in women of climacteric period has been suggested at literature analisis, and study of the these changes in premenopausal period are devoted only a single works. Thus, the aim of the work: to clarify the characteristics of lipid metabolism in women during the premenopausal. At the glucose – tolerance test has been found that 30 minutes after administration of the glucose level in the blood increased compared to basal levels by an average of 0.69 mmol/L after 60 minutes – 1.7 mmol/l, and after 2 hour exceeded basal glucose level almost 1.5 times. Describet dynamics of blood glucose in glucose – tolerance test and elevated basal insulin levels in the blood suggests the presence of insulin resistance in women during the premenopausal. At visceral obesity of insulin resistance due to excessive of free fatty acids in the liver and changes of lipoprotein lipase activity and hepatic tryhlitserydlipazy, slows the decay of lipoproteins rich in tryglycerides, hypertriglyceridemia develops, which in turn helps to reduce the level of HDL cholesterol, the formation of small LDL particles. That is, forms a vicious cycle that contributes to the accumulation of adipose tissue in the abdominal area.

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SUCHASNI DIAGNOSTIC CRITERIA OF ACUTE PERITONITIS

Undoubted achievements in clinical and experimental surgery in the last century have deepened understanding of the processes of the etiology and pathogenesis of acute peritonitis: a link between laboratory signs of active inflammatory response and prognosis in patients with middle and old age, the value of flora and reactivity of the patient, task and algorithm surgery. But they are often not consistent. Results of treatment of 361 patients with acute peritonitis and found significant differences in stage of diagnosis in the elderly and in patients with concomitant systemic diseases.

The obtained results allowed to determine further treatment strategy, expand indications for the use of minimally invasive methods of surgery in patients with combined surgical pathology. Given that provide Minimally invasive surgery with less trauma radical, the authors consider it necessary to put a wider indications for use in patients in urgent basis. This allowed the diagnosis of surgical pathology in the peritoneal cavity in 112 patients.

Conclusions: 1. Standards of providing emergency medical care to patients with acute peritonitis should be improved in the elderly and in patients with concomitant systemic diseases. 2. At the stage of diagnosis of acute peritonitis in order to prevent the probable differences should be set wider indications for use in emergency procedure videolaparoskopiy.

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THE FORMATION OF NEURON-HLIO-CAPILLARY RATIOS OF VENTROMEDIAL NUCLEUS OF THE HYPOTHALAMUS IN POSTNATAL ONTOGENESIS

Scientific research is devoted to studying morphofunctional organization of the ventromedial nucleus of the hypothalamus in postnatal ontogenesis. For research were used hypothalamus of 20 male rats Wistar line 1–, 15–, 30–, and 120 days old. Were used histological and electronic microscopic methods. Found that newborn rats revealed only moderate electro-optical density of neurons that contain isolated immature neurosecretory granules. Glial cells are little differentiated and in neuropile are detected only without myelin nerve fibers, acxo-somatic and Acxo-dendritic synapses. With the increase of duration of postnatal period of ontogenesis increases area of neurons and their nuclei, but decreases nuclear cytoplasmic index.

Neurons are differentiated into light and dark neuroendocrine cells that contain well-developed protein-synthesizing apparatus: Golgi complex, granular endoplasmic reticulum, progranules of neurosecretion, young and mature neurosecretory granules.

Volumetric density of neurosecretory granules increases in light neuroendocrine cells of 15-day-old animals and does not differ from the 1-month and 3-month-old animals, while in the dark neuroendocrine cells volume density of neurosecretory granules in all age groups of animals are significantly higher. The numerical density of capillaries and neurons decreases with age, and glial index increases. In the ventromedial nucleus in all periods of postnatal ontogenesis are more dark neuroendocrine cells than light, and at 3 months of age in the study appear isolated vacuolized neurons. With the increase of duration of postnatal ontogenesis among glial cells are allocated proto-plasmatic and fibrous astrocytes, microglial cells and olihodendrocytes. In neuropile appear myelin nerve fibers.

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FEATURES OF HYPERTENSIVE AND CLINICO-FUNCTIONAL DISORDERS AT TOXIC AND TOXICO-HYPOXIC ENCEPHALOPATHIES IN CONSEQUENCE OF A POISONING WITH METHANE AND CARBON MONOXIDE

One of frequent consequences of acute poisoning at miners of miners is the arterial hypertensia which coincides with neurologic syndromes toxic and a toxico-hypoxic encephalopathies.

In the papers the analysis of neurologic disorders at miners is carried out at mine poisoning of carbon monoxide and methane with the secondary arterial hypertensia. It is examined 43 patients who have carbon monoxide poisoning, and 41 patients with a methane poisoning.

Made studying of a functional state of the nervous system by results of EEG, the visually-motor evaluator on device "Diagnos-2MA", vegetative nervous system and the vestibular analizator under clinical tests: Ashner, orthoststic, Uemura, step-by-step and written Fukuda, index, monitorings. Reliability of results estimated by t-criterion of Studenta and on $\chi 2$.

On results of speed of visually-motor reaction, vestibular disorders by results of neurootologic tests, vegetative disorders in the form of vegetative insufficiency in tests of Ashner and orthostatic against the secondary arterial hypertensia is revealed numerous neurologic semiology, deflections in bioelectric activity of a brain by results electroencephalography. Tests of Uemura, the step-by-step test of Fukuda were the most informative vestibular tests, graphic and the monitoring test, and also complaints to dizziness which were accompanied by other symptoms (the main we are headache, weakness, a sleeplessness, etc.).

Therefore suffered from acute poisoning in mineres with arterial hypertensia need more attentive attitude of neurologists and therapists and new approaches to treatment.

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DIAGNOSTIC VALUE OF THE ESTIMATION DISORDERS OF CONDITIONALLY PATHOGENIC MICROFLORA FOR WOMEN WITH GENITAL ENDOMETRIOSIS

Today endometriosis goes to one of the first places in the structure of gynecological diseases for women of reproductive age. The pathology has rather complicated and not fully understood pathogenesis. Moreover, today there is a tendency to increase the frequency of endometriosis – 1996 to 2010 – 1,5 times (and varies from 7 to 59%). The least studied questions deal with etiology and pathogenesis of endometriosis. Today in the study of endometriosis gram-negative microorganisms plays not the last role. Enterococcus, Escherichia coli, Klebsiella, asporogenous anaerobes (Bacteroides, Peptostreptococcus, Fusobacterium spp.), which in symbiosis with aerobes form polymicrobial associations highly resistant to most antibiotics, which are often prescribed as a result of imperfect diagnosis of endometriosis on early stages is widespread problem. This leads to overproduction of endotoxin (lipopolysaccharide) due not only to increased degradation of the main microorganisms – Escherichia coli, but also the activation of growth and decay of gram-negative microflora of the vagina (also capable to produce endotoxin). If in recent years aspects of the study of inflammatory processes combined with genital endometriosis increasingly highlighted in the literature, the assessment of the state of the vaginal microbiota, the role of disorder of conditionally pathogenic microflora for patients with genital endometriosis and how to diagnose the problem is still not enough described. With the increasing role of conditionally pathogenic microflora in the study of endometriosis, an important step is the detection of such microorganisms and the substances they produce – endotoxin. Compound LPS has narrow limits of detection methods, but identification and determination of the type of microorganisms that produce it in recent years has gained a new significance.

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THE INFLUENCE OF DOUBLE DUSTING ON THE DEVELOPMENT OF DISORDERS IN THE IMMUNE AND OXIDANT-ANTIOXIDANT SYSTEM IN A RAT MODEL OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE

The model of COPD was created by the double introduction of coal and rock dust with a 40% alcohol with a 7 days interval. To create autoimmune disorders in the organism of the rat, Freund's adjuvant, cytostatic and immunopotentiator were used. In the model of COPD in rats, there was a decrease of leukocytes number in the peripheral blood. In the blood leukocyte formula an increase of the absolute and relative content of band forms of neutrophils, a decrease in total number of lymphocytes and segmented neutrophils, eosinophils, and monocytes were observed. In spontaneous NBT-test, there was a decrease of number of neutrophils; the activation index of neutrophils without stimulation has been reduced. The reduction of the activation index in model animals in spontaneous phagocytosis shows that the phagocytes have low back activity of intracellular enzymes and during activation can lead to significant loss of neutrophils and development of the phagocytic immunity failure. In the study of neutrophils phagocytic activity with Staphylococcus strain 209, there was a decline of phagocytic activity after 30 and 90 minutes, phagocytic number was reduced after 30 and 90 minutes in comparison with the control. Oxidant system activity and the amount of diene conjugate and malondialdehyde were increased. In the study of the antioxidant system decreased catalase activity was demonstrated. Some of the indicators of the antioxidant system were improved such as increased activity of xantinoxidase and increased number of uric acid in the serum. The disease affects on number of leukocytes, relative number of band neutrophils, absolute number of segmented neutrophils, lymphocytes and monocytes. Impact of the disease on phagocytic activity of neutrophils in spontaneous NBT-test and the significant influence on the activation index of neutrophils without stimulation were noted. Development of COPD influenced on phagocytic activity of neutrophils after 30 and 90 minutes and phagocytic number after 30 and 90 minutes. Studies revealed the influence of COPD on the indices of oxidative system (diene conjugates and malonic dialdehyde) and the indices of antioxidant system (on the content of uric acid in serum and catalase activity).

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THE USE OF VAZOMAG IN MULTIMODALITY TREATMENT OF PATIENTS WITH DIABETIC POLYNEUROPATHY

Diabetes mellitus is one of three diseases which most frequently cause disability and death. According to WHO, diabetes mellitus considerably increases mortality rate and decreases life expectancy. The urgency of the issue is stipulated by the extension of diabetes mellitus. A common complication of diabetes mellitus is polyneuropathy. It affects the patients' quality of life, leads to disability as a result of diabetic foot, and, in case of autonomic disturbances, it reduces the lifespan forecast. Thus, development of effective treatment methods involving antioxidant medication is vitally important nowadays. The effect of Vazomag on the function of peripheral nerves in combination treatment, in accordance with stimulation electroneuromyography data, has been studied. The most positive effect on the amplitude of M-responses of upper extremities nerves has been recorded when applying Vazomag in comparison with basic treatment. Patients with newly diagnosed diabetes mellitus have decreased amplitude of M-responses proving axonal damage of peripheral nerves. The progression of polyneuropathy is accompanied by further decrease of M-responses amplitude. The optimal result has been observed in cases of incipience of diabetic polyneuropathy and in cases of diabetes mellitus up to 10 years.

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TOPOGRAPHIC AND ANATOMICAL FEATURES OF THE MAXILLARY SINUS IN ELDERLY AND SENILE PERIODS OF ONTOGENESIS

The growing number of diseases of the nose and paranasal sinuses in recent years causing natural scientific interest in the subject, forcing researchers to find new approaches to diagnosis and treatment, and to improve existing ones.

The purpose of this study is teachings topographic anatomical features maxillary sinus in elderly and senile periods of ontogenesis.

Research topographic anatomical features maxillary sinus performed on 32 specimens of the upper jaw, head turtles and autopsies of dead bodies elderly and senile preparation methods, morphometry, radiography.

In elderly and senile period of human ontogenesis maxillary sinus cavity is the most severe and is located in the body of the maxilla. It has the shape of an irregular square pyramid, which forms the basis of the lateral wall of the nasal cavity, and top-zygomatic apophysis of the maxillary bone and the limited front, top, rear, medial and lower walls. The front wall of the maxillary sinus is located between the edge of the eye socket infraorbital and alveolar bone of the upper jaw. The upper wall of the maxillary sinus is formed by orbital surface of maxilla, which is also the bottom wall of the eye socket. The rear wall of the maxillary sinus maxillary topographically consistent with the hump . The bottom wall of the maxillary sinus formed alveolar bone of the upper jaw. Medial (nasal) surface of the maxillary sinus once formed part of the lateral wall of the nasal cavity.

On the basis of the complex morphological methods, it is shown that for the elderly and senile reversible processes occurring human ontogenesis, come involutive changes in the walls of the maxillary sinuses. A small number of studies and the lack of an integrated approach to the study of morphogenesis maxillary sinuses causes the relevance of the problem and the need for its further study.

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METHOD OF APPLICATION OF PREOPERATIVE CHEMORADIOTHERAPY IN THE TREATMENT OF PATIENTS WITH RESECTABLE COLON CANCER

Treatment of patients with colon cancer in 2 and 3 stages of the disease, which involves surgery and adjuvant chemotherapy is accompanied by a 9% recurrence and distant metastases in 20% of cases. Therefore, a logical approach to improving long-term results of treatment is the use of chemoradiation therapy component in the preoperative phase of the colon cancer.

Objective: to study the effectiveness of neoadjuvant chemoradiotherapy with 5 – fluorouracil and external gamma-therapy to improve long-term results of treatment in patients with resectable colon cancer.

Materials and methods.

Diagnosis and treatment were performed according to the clinical protocol to provide medical care of the colon cancer. Diagnosis of the disease exhibited under histological examination of biopsy material tumor volume distribution process for TNM system.

Results of the study.

A new treatment for patients with resectable cancer of the colon, which is based on the application as a means of introduction of neoadjuvant 5- fluorouracil and radiation therapy followed by surgical treatment and, if indicated, holding adjuvant chemotherapy.

Tested the combination of 5-fluorouracil and g- therapy in the neoadjuvant regime had a direct effect devitalizuyuchu (4-5 pathomorphosis medical degree) and thus caused irreversible changes in tissue presented G1 and G2 adenocarcinoma (4 degree – to 34,87±7.27% and 5 degree – in 11,63±4,89%); of 25,58±6,65% of patients with highly differentiated form of adenocarcinoma with 3 degree chemoradiation influence.

Survival rates of patients receiving preoperative chemoradiotherapy in cases of G1–G2 adenocarcinoma was 85,71±5,92%. In patients who had no preoperative treatment, respectively, survival rate was 72,22 ± 7,47%. Preoperative use of neoadjuvant chemoradiation and radical surgery and, if indicated, adjuvant treatment in patients with resectable cancer of the colon with the degree distribution of T3-4N0M0 increased 5- year survival rate (D 13,33%; $p < 0.05$) compared with the group of patients with similar distribution, which was conducted only surgical treatment and adjuvant chemotherapy if indicated.

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EXPEDIENCY OF THE MINOR'S TEST IN PATIENTS WITH PURULENT DISEASE OF THE SKIN AND SOFT TISSUES

Contemporary literature data on the impact of hyperhidrosis on the development of purulent diseases of the skin and soft tissues have been analyzed in the article.

The objective was to evaluate the expediency of using Minor's test in patients with purulent-inflammatory diseases of the skin and soft tissues.

The material for the study was 25 healthy students, their age ranged from 19 to 24 years.

To evaluate the intensity of sweating Minor's test was used. The method implies the chemical reaction between the sweat, starch and iodine, which resulted in changing the color of areas with excessive sweating. The evaluation test was performed using the parameters initially suggested by Minor, according to color. If the color was yellow – it was a sign of hypohidrosis, color change to dark blue – hyperhidrosis.

Sweating is one of the natural mechanisms that provide cooling of the body and removing excess fluid from it, toxic substances, waste products and water-salt metabolism. Since sweat is a biological fluid, which is formed in the human body, it is favorable nutrient medium for bacterial growth, which leads to disruption of the protective functions of the skin and skin diseases development of: miliaria, skin intertrigo, as well as fungal and purulent lesions.

To evaluate the intensity of sweating in clinical practice objective and subjective methods may be applied. The objective methods include: gravimetric method, Minor's test. Subjective assessment methods are analogous scales and questionnaires, including the one by Denyshchuk. Analyzing personal data, it has been found that the factors that provoke axillary hyperhidrosis have mild changes in external temperature and physical activity (42.86%), middle level – stress, emotional arousal (35.71%), and the appearance of abnormal sweating at rest (21.43%) showed severe degree of axillary hyperhidrosis.

According to the study results, it was found that the questionnaire for Denyshchuk and Minor's test has "weak spots", because the results of these research methods do not estimate the exact area of injury, do not account for the totality or mosaic lesions, anatomical dimensions, the impact of changes in the external environment.

In view of the above, we have modified the Minor's test, which included: 1) taking into account conditions (volume of fluid ingested, emotional condition, time of the day (late afternoon sweating is reduced, the use of antiper-

spirants at the day of the test), 2) the formation conditions of constant room temperature (test carried out in the same type of room, at 20 °C in the absence of air movement); 3) photo documentation of the results; 4) the exact calculation of the affected area; 5) color scale; 6) mosaic and total damage distribution.

According to the results of 25 healthy students functional changes in sweating in the axillary area were pronounced. In particular: mild axillary hyperhidrosis was detected in 35.71%, average – in 14.29%, severe – 50%. Thus, every second healthy person showed profound changes of axillary sweating (severe hyperhidrosis), which leads not only to a change in lifestyle, but also to violations in the local level against infectious level of the skin. Taking into consideration the life of today's youth: compliance with the rules of hygiene, regular shaving of axillary areas, using antiperspirants with different levels of pH, result in injury to the skin with epidermis loss, which in turn is a factor of the classical triad. Triad factors that give rise to purulent – inflammatory diseases of the skin and soft tissues are: acidity violation, hyperhidrosis, microtrauma. The relapse rate of purulent – inflammatory diseases of the skin and soft tissues in this group is high.

Conclusions.

1. Sweating is one of the components of natural protection against infection of the skin that provides some resistance of it.

2. Axillary area of active sweating is a typical locus minoris resistentiae of various purulent – inflammatory diseases of the skin and soft tissues, including those prone to relapse.

3. Evaluation of the intensity of sweating in anatomic areas, using Minor's test, enables to detect the natural mechanisms of protection against infection as one of the main causes of surgical infection with further possibility of its correction.

PREVENTIVE MEDICINE

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PECULIARITIES OF THEORETICAL AND PRACTICAL STUDY "TRAUMATOLOGY AND ORTHOPEDICS" FOR FOREIGN STUDENTS

Every year the number of foreign students in high medical schools in Ukraine is progressively increasing. It indicates the importance and perspective of this tutorial branch. The analysis of tutorial process students of foreign faculty Bucovinian State medical university on "traumatology and orthopedics" was made. It was estimated that quantity of tutorial hours that were given for learning the discipline is not enough. The quantity and quality of English textbooks and methodical instructions are very low. The students have to buy textbooks for their own expense and high quality literature is very expensive. To resolve this problem the computer tutorial course "Traumatology and orthopedics" was developed for English speaking students. It contains plans for lectures and practical classes, abstract for every topic, test questions, hyperlinks to video materials that show modern methods of investigations, rare clinical cases, peculiarities of their diagnostics and treatment. Its introduction allows optimizing the learning process and improving mastering of practical skills.

On the practical classes foreign students are mastering practical skills according to the approved list – transport immobilization, application of plaster bandage, performing skeletal traction, arthrocentesis, and examination of patients. Problems with patient curatio are related with low level of Ukrainian language and big number of students in groups, that complicates individual approach to mastering practical skills. Decreasing number of students in the groups and involvement them to participate in urgent duties will improve the level of theoretical and practical knowledge, motivation and enquiring of students in traumatology and orthopedics and will make educational process more individually oriented. Another perspective goal is to compile and publish quality English textbook and handbooks on "traumatology and orthopedics".

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DISTANCE LEARNING AS AN INNOVATIVE POSTGRADUATE EDUCATION

Today, distance learning is the most appropriate response to the challenge that we throw life. Use of innovative teaching methods develops observation, attention, thinking. The main focus of intensification of training should shift from mechanical memorization of ready tasks to a comprehensive revitalization of academic and intellectual activity. It needs to have a strong activation and self-organization for distance learning is primarily self – the ability to work independently. Processed 34 individual cards cadets in training at the pre-certification in Ivano-Frankivsk National Medical University and 34 anonymous questionnaire. Established, a greater proportion of students under the age of 50 years (group of young doctors and stable). Work experience in the specialty to years in 58,8% of the audience. More than half of the students had the highest and the first qualifying category (55,8%) who participated in the survey regressive. Distance learning is of interest in a group of young doctors and are willing to take part in it.

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THE ROLE OF THE ORGANIZATION AND ECONOMIC OF PHARMACY IN THE PREPARATION OF PROFESSIONAL SPECIALIST PHARMACEUTICAL INDUSTRY

The modern development of the pharmaceutical industry requires knowledge of fundamental economic disciplines from the specialist in this field. The organization and economic of pharmacy is the one of the important subjects, which is characterized by dynamic development and marching in step with the times. Therefore, it's been provided to study this discipline during all the period of study.

The aim of the research was the analysis of the peculiarities of teaching "The organization and economic of pharmacy", including the processes of globalization and reform of the national pharmacy.

This subject provides systematic knowledge about the organizational and economical aspects of the pharmaceutical activity under the modern conditions, promotes the formation of the professional skills according to the educational characteristics, provides theoretical basis for the further study of other pharmaceutical and economical disciplines, creates the basis for the establishment of professional specialist – pharmacist.

The feature of the organization and economic of pharmacy is a high dynamic, whereas the content of discipline is constantly changing under the influence of the environment and requires the comprehension of the new knowledge.

The main material of this subject based on the legal documents is the specificity and regulate the pharmaceutical activity.

The disciple "the organization and economic of pharmacy" in Bukovyna State Medical University has been teaching in the Department of Pharmacy. The study of this subject begins in the first year by passing the practice from the organization and economic of pharmacy, continues as one of the main subject in 3-4 years of study and practical skills are fixed during the manufacturing practice.

A substantive approach to learning will allow in the future to prepare highly qualified specialist, who will be able to increase the efficiency of pharmaceutical care.

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SEASONAL CHANGES OF THE CONTENT OF PRODUCTS OF FREE RADICAL OXIDATION OF LIPIDS AND PROTEINS IN RAT KIDNEYS

An important part of metabolic processes in the body providing adaptive response to the effect of geochemical and anthropogenic factors is enzymatic antioxidant system which controls pro- and antioxidant balance in the body. The state of this balance is characterized by the content of free radical oxidation products in tissues.

Processes of free radical oxidation of lipids and proteins in rat kidneys at different seasons of the year have been studied. The experiment was performed in winter – December, in spring – March, in summer – June, and in autumn – October.

Experiment was performed on non-linear albino male rats, 180±10 g of body weight. Animals were kept in vivarium at constant temperature and light conditions (according to the season).

The processes of lipid peroxidation were evaluated by the content of malonic aldehyde, the processes of free radical oxidation of proteins – by the content of aldehyde- and ketone derivatives of dinitrophenylhydrazine in postnuclear supernatants of rat kidneys.

Seasonal dependence of parameters of free radical oxidation of lipids and proteins in rat kidneys was established. The lowest level of oxidative processes was observed in summer, it raised in autumn-winter period reaching the highest values in spring.

We established that in natural spring equinox the content of malonic aldehyde and aldehyde- and ketone- derivatives of dinitrophenylhydrazine in kidneys of rats were the highest. These peculiarities of the processes of free radical oxidation at different seasons are probably related to changes in the activity of antioxidant system of rat kidneys as one of the adaptive mechanism to the influence of external factors on the body.

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STRUCTURAL FEATURES OF BLOOD VESSELS IN PANCREATIC ISLETS AT 24 MONTHS AGE RATS AND IT'S ALTERATION BY 42 AND 56 DAY COURSE OF EXPERIMENTAL DIABETES

The aim of the study was to determine the features of blood supply insular apparatus of the pancreas of rats at 24 months age, and it's alteration after 42 and 56 days of experimental diabetes.

Work carried out on 30 white rats – males Wistar line weighing 340–420g. 24 months age rats that were kept under standard vivarium conditions with all the accepted rules. For the experiment, the animals were divided into two groups: the first – intact (10 animals), the second – experimental (20 animals), which simulated experimental diabetes research with the structure and links blood vessels in 42 and 56 days of experiment, of which 6 animals served as control.

Arterioles originating from the artery and placed in layers of connective tissue around the islets. Branching form precapillars that form open and closed loop surrounding the island and give rise to capillaries that lie between endocrinocytes, anastomozuyut each other and form a capillary net. The capillaries merge form postcapillars emanating from between endocrinocytes and united to form venules.

In 42 day course of experimental diabetes the decrease arterial lumen, precapillars, capillaries and postcapillars. Clearance venules increases the maximum for the entire period of observation.

Ultramicroscopic detected thickening of endothelial micro-vessels, increasing the electron-optical density of the cytoplasm, which contains a large number vesicles and vesicles tsytolema lyumenal surface creates numerous finger shape protrusion.

In 56 day experiment further reduced arteriolar lumen. Clearance precapillars, capillaries and postcapillars slightly different from that of the previous period, and the lumen of venules significantly reduced.

Arterioles and venules preinsular areas remain the main structural components of the wall. However, the thickness of the shell increases, defined areas of endothelial desquamation and destructive changes in arteriolar myocytes. Capillary walls thickened by increasing the thickness of the endothelial and basement membrane. Some endothelial cells are destroyed, and their cytoplasm found in the lumen of the capillaries.

Thus, changes in the endocrine part of the pancreas in 24 months age rats to 56 day course of experimental diabetes characterized by spasm of the arterial blood vessels, and venous dilatation it's component.

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