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CLINICAL MEDICINE

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IMPROVED TREATMENT OF PATIENTS WITH PULMONARY TUBERCULOSIS CHEMORESISTANCE BY APPLYING AEROSOL THERAPY

Today, modern use of drugs, which ensures no damage to the skin, irritating action on the mucous membrane of the esophagus, stomach, and their physiological revenues in both respiratory and other systems of the human body by absorption through the mucous membranes of the respiratory tract is aerosol therapy.

One of the devices that allow you to convert the liquid into spray is a nebulizer. They are particularly indicated severe patients who have significantly reduced functional reserves of breath. Indications for use of nebulizer aerosol therapy is very broad and have many advantages.

Recently, the increasing incidence of tuberculosis chemo resistant. Thus, in the Chernivtsi region, as in the whole country, is recorded upward trend in the incidence of MDR- TB from 4.1 per 100 thousand population in 2011 to 5.9 in 2012 (14.3% $p < 0.05$), which determines the severity and urgency of the problem of treating these patients.

Treatment chemo resistant forms of tuberculosis, characterized by the rapid multiplication of MBT massive infiltrative – caseous changes in the lungs, numerous destruction of lung tissue, severe intoxication syndrome causes considerable difficulties. One of the main reasons for the lack of efficacy of treatment of this group of patients is an adverse reaction that arise during combination therapy with anti-TB drugs. They significantly limit the ability chemotherapy and reduce the effectiveness of treatment of pulmonary tuberculosis in basic terms – the terms of cessation of bacterial and frequency of closing cavities.

Despite the extensive experience of anti-TB drugs, the problem of side effects on makroorganism remains relevant today.

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DIAGNOSTIC VALUE OF BRONCHIAL LABILITY INDICES IN THE DETECTION THE SEVERE ASTHMA PHENOTYPE

One of aspect of inadequate asthma control is phenotypic heterogeneity, in particular, detecting a phenotype of severe asthma. Since the asthma is characterized by the bronchial lability, the investigation of parameters can be used to diagnose severe asthma phenotype and predict achievement or loss of disease control. This article is intended to determining the diagnostic value of bronchial lability parameters of the in the detection the severe asthma phenotype compared to moderate variant pathology in schoolchildren. Bronchi lability was determined according to the recommendations by assessing their response to dosed physical load and short-acting β2-agonists inhalation (salbutamol 200 mcg) followed by calculating the sum of the bronchi lability as components – bronchospasm and broncodilatuion indeces. Bronchial lability indices in confirming severe asthma were characterized by high specifity with low sensitivity and low level of likelihood ratio. It was shown that children with severe asthma phenotype characterized by significantly higher bronchial lability at the expense of more expressive dilated response to inhaled β2-agonists. Using bronchial lability indexes with a view to screening the severe asthma phenotype is justified only in combination with other indicators that reflect the characteristic phenomena of disease because a significant proportion of false negative results and insufficient likelihood ratio.

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DISORDERS IN HOMEOSTASIS REPRODUCTIVE SYSTEM AND HEAVY UTERINE HEMORRHAGES IN PREMENOPAUSE PERIOD

The problem of excessive uterine bleeting as the most frequently complication of premenopausal period is relevant because cancer of endometrium consists first in the structure of malignant tumor of female genitals.

The maine cause of excessive menometrorrhagia of premenopausal age is a violation of the reproductive system homeostasis that occurs with age and characterized by a graduae in crease, of the threshold of hypothalamus sensitivity to homeostatic inhibition disappear cyclic luteinizing hormone-rellasing function while maintaining its tonic center increased production of gonotropic hormones which leads to anovulatory cycles and absolute or relative hyperestrogenemy.

Hormonal deviations which, undoubtedly are the chief trigger mechanism in the development profuse uterine blooding of the premenopausal age, become secondary component of the pathological process in the future, taking an insignificant part in the formation of individual features of the disease and therefore, are badly correlated with the specific characteristics of their course. First and foremost local functional and morphological changes occupy the leading position, new stromal-mesenchymal relations are formed.

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HOW TO IMPROVE THE TREATMENT OF PATIENTS WITH PILONIDAL CYCTS IN CASE OF RELAPSES

In order to improve the treatment of patients with pilonidal cycts and preventing complications and relapses of the disease, the analysis of surgical methods' efficiency was carried out on 44 radically operated patients. There were 35 men and 9 women in the group. The age varied from 15 to 56 years, the average age being 24,9 years.

The patients were divided into three groups according to the type of surgical treatment and the severity of initial pathology. The methods of "open" wound treatment, stitching the edges of the wound to the bottom and a special modified Limberg method of plastic surgery eliminating the defect of sacrococcygeal region's soft tissues with counter flaps were used. The defined method was indicated to be used in case of extended disease, sufficient cicatrical changes in soft tissues, which underlines its practical importance.

The results of comparing different treatments allowed to make the grounds for the necessity of using individual approach for choosing the treatment tactics. The advantages and against of different methods were stated. The results obtained allowed to reveal the reasons of relapses and to ground the preventive measures. It was noted that the patients with post-surgical relapses of pilonidalcyst and pilonidal sinuses make the group of maximum risk of post-surgical complications and relapses of the disease. The surgical methods here need revision, and the treatment algorithm has to be based on objective criteria, also considering the results of instrumental examination and the prospects of wound process course.

The research has shown the possibility to improve the long-term results by using the modifiedmethods of plastic wound surgery with constrained countertriangularflaps, which is evidenced by the decrease of relapses up to 7,1%, reduction of treatment period and rehabilitation of the patients.

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MECHANISMS OF NITRIC OXIDE PARTICIPATION IN THE DEVELOPMENT OF PATHOLOGICAL PROCESSES CARDIO – VASCULAR SYSTEM

Currently a number of studies examining the role of nitric oxide and various isoforms of NO-synthase in the development and regulation of physiological and pathological processes. However, some mechanisms involving of NO-synthase isoforms in particular inducible NOS in the pathology of cardiovascular diseases poorly understood. Positive or negative influence on the activation of iNOS structural and functional state of cardiomyocytes depends on the amount of nitric oxide, the duration of its products as well as the conditions under which it is synthesized, in particular, under hypoxic conditions. To reduce the appearance of hypoxic myocardial damage in cardiovascular diseases applies modern medicines. However, the mechanisms of action for many of it are not enough or not clear understood. According to the theoretical and experimental data of the pathogenesis of myocardial disturbances may be useful drugs which reduce the intensity of the formation of free radicals, eliminate the prolonged overproduction of nitric oxide and, consequently, prevents the destruction of cardiomyocytes. Therefore, the main task of theoretical medicine and clinical practice is the investigation and development of drugs that would eliminate or reduce the structural and functional damage to the myocardial cells.

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EFFECT OF AUTONOMIC NERVOUS SYSTEM DYSFUNCTION ON THE DEVELOPMENT OF BILIARY TRACT PATHOLOGY IN PATIENTS WITH GASTROESOPHAGEAL REFLUX DISEASE (GERD)

It was established that hypokinetic – hypertonic (50.0%) and hypokinetic – hypotonic (30.0%) types of dysfunction of biliary tract were often revealed. Vegetative tonus (VT), vegetative reactivity (VR), exertion index (EI), and activity of vegetative provision (AVP) were studied by the method of variating pulsometria and loading tests. Statistical analysis was carried out in SPSS. Biliary dysfunction in patients with GERD was accompanied by deepening of autonomic imbalance with significant predominance of hypersympathicotonic reactions and changes of autonomic reactivity due to increased disintegration process between the nervous and humoral regulation. There were a predominance hypersympathicotonic reactions at hypokinetic-hypertonic and asympathykotonic ones at hypokinetic-hypotonic types of biliary tract dysfunction. Disorder of VPA was revealed at more quantity in patients with GERD in comparison with control group. It was also evidence of exertion of adaptive mechanisms in patients with initial sym-

pathicotonia and increasing EI on the average to 72.9±6.1%. At the same time quantity of compensatory reactions because of tension reaction which became in 2 times more. It means that in patients with GERD had vegetative dysadaptation and less unfavorable outcomes than patients in control group.

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THE APPLICATION OF LASER PNEUMOLISIS IN COLLAPSOTHERAPY OF PULMONARY TUBERCULOSIS

Pneumolisis is a very important prossedure in effective collapsotherapy of pulmonary tuberculosis. The most used kind of pneumolisis is thoracoscopy with dissection pleural adhesions. In this article the analysis of 32 cases carried out in contingent patients with pulmonary tuberculosis. Comparison of pleural dissection with laser and electrosurgical generator was developed. Most universal surgical diode lasers are 0,97-1,064 wave-lengths. Radiation delivers by optic fiber. We used 1064 nm because the bland sort of it proved by morphomethry of wounds. Necrosis zone after contact influece is 12,5 mkm, after electrosurgical – 29,6 mkm. There were no articles about 1064 nm diode laser pneumolisis found in literature. Effectiveness evaluated in such indexes that listed below. Possibilities and advantages of diode laser 1064 nm wave-length determined in that cases with following collapsotherapy. They are foolproof hemostasis, effective aerostasis, low quantity of distant complications and best results of lung expanding after 6 months collapse. Laser pneumolisis imperfection is too long duration which is more in 1,5 times than in cases of electrosurgical pneumolisis. Very useful quality of laser emanation is forming elastic scarring. This difference gives positive overpatchings in all stages of collapsotherapy. Pneumolisis using diode laser 1064 nm wave-length in not-urgent situations is recommended.

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RACIAL CRANIOLOGICAL FEATURES AND THEIR IMPORTANCE IN THE EVOLUTION

Among a great number of anthropological and anatomical researches a great part of attention is dedicated to the studying of the morphology of cranial bones. Very important has a methopism – the existence of the suture between the two parts of the frontal bone. The majority of infants have this suture fused after the birth, but some individuals have such a structure in the virgin form. It is interesting that some researches consider that the appearance of the variants of the morphology of cranial bones is connected with the race of the person. Modern scientist is very interested in such ideas, so they are stimulated for learning this theory in details.

The value of such craniological feature nowadays as well as in past allowed scientists to justify its evolutionary significance. From the beginning of the XX century anthropologists have assumed that the gradual increase of front lobes of the brain is the main reason of presence of front suture in adults, so that this sign for the man of the future with overly large brain will be normal. Besides, scientist say that the frequency of methopism among adult population will continue to grow.

Thus from the type of homo sapiens is distinguished race that differs in the known morphological sign. Just like this in scientific literature was first described one of major anthropological signs of superman of the future. This innovative conception in home and world science and farther finds the continuation.

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THE ROLE OF EPITHELIAL-MESENCHYMAL TRANSITION IN THE PATHOGENESIS OF CHRONIC KIDNEY DISEASE AND RENAL CELL CARCINOMA (PROBLEMS AND PROSPECTS)

Epithelial-mesenchymal transition is a process in which epithelial cells lose their intrinsic properties (cell-cell adhesion and apical-basal polarity) and acquire properties of mesenchymal cells (spindle-shape, motility and synthesis of extracellular matrix components). Tubular EMT is proposed as an orchestrated, highly regulated process that consists of four key steps: 1) loss of epithelial cell adhesion; 2) de novo α-smooth muscle actin expression and actin reorganization; 3) disruption of tubular basement membrane; 4) enhanced cell migration and invasion. The key molecular features of the EMT is the loss of E-cadherin expression associated with the activation of transcription factors Snail1, Snail2 (Slug), ZEB1, Sip1/ZEB2, E2A, and the reorganization of actin fibrils and formation of stress fibers as a consequence of the activation of transcription factors Twist1 and MRTF. Over the last years it has been established that EMT may underlie the development and progression of many pathological processes in the kidney and reflects the adaptive changes in the cells in response to an injury or change of the gene activity in tumor growth. The study of the EMT molecular mechanisms opens up opportunities for fibrosis development risk individual assessment and may lead to the design of specific and effective target therapy the interstitial fibrosis and renal cell carcinoma.

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IDENTIFICATION OF LARYNGEAL NERVES IN SURGICAL WOUND

Background. Nowadays the latest research was made by the world and domestic medical centers have proved that the endocrine diseases are steadily increasing. Here it is necessary to emphasize that surgery on the thyroid gland is characterized by specific complications, including the injury of laryngeal nerves that, in their turn, can cause the violation of phonatory function and hypoparathyroid. [1, 2] Subjective and objective methods of identification are used to alleviate the search of laryngeal nerves. These methods are based on visualization of nerve tissue in the wound and monitoring to ensure the integrity and nerve conduction after the surgery, or a phase of surgery.

It is well-known, that widely used methods for monitoring of laryngeal nerves being related only to the recurrent nerves are not entirely accurate and do not allow to identify the nerve tissue among the tissues of the wound. Some of them, including the method of electromyography, laryngoscopy and method by Devis are made up technically, requiring special equipment and additional medical specialists.[3]

Objective: To develop a highly effective simple method for intraoperative identification and monitoring of laryngeal nerves.

Materials and methods.

The study involved 115 patients who were operated on the thyroid glands, they were divided into two groups: the first group – 65 patients to whom our proposed method was used and the second one – 50 patients, they were observed with the help of the method called visual inspection.

To identify laryngeal nerves in a surgical wound it is used some means for processing the information signal a signal is being processed with a certain software module, which includes filtering, it determines the maximum amplitude and frequency of the filtered signal for each intraoperative observation recording the data to process the information signal.

Proposed method of identification and monitoring of laryngeal nerves is based on the stimulation of the surgical wound tissues with the fixed frequency AC, for which muscular and other tissues of the wound have low conductivity, while the larynx nerves have high conductivity of the electrical signal. Laryngeal nerve stimulation leads to the contraction of larynx muscles in the form of short-term tetanus, which is the impetus for reducing tension of the larynx and vocal cords. Altogether these reactive processes cause the change of a glottis and, as a result, the sound effects that occur when the air passes through it. Phonation is recorded with the sound sensor installed in the tube of the laryngeal mask and further it turns into electrici-

ty. Then, with the help of a power converter the data is being accompanied by the sound, playback appears on a computer screen. In the patients of the first group there were identified 194 laryngeal nerves, from which 97 recurrent and 97 superior laryngeal nerve. In the patients of the second group – 76 recurrent nerves, from which 52- during the thyroidectomy 24 – during the hemithyroidektomy.

It is established that the amplitude and frequency of the informative signal output depends on the distance from the active electrode to the recurrent nerves when the stimulation laryngeal nerves reaches its top point. Having a positive result of stimulation there is a tension of vocal cords, which forms the sound waves. Being fixed by the sensor located in the laryngeal mask a corresponding digital signal is transmitted for processing and evaluation on a computer with special software. So, it is possible to determine the presence or absence of stimulation – the signal is displayed on the computer.

The same settings of stimulation and phonography were used in all cases. While intraoperative nerves being stimulated the ranges of signal was divided according to the distance of stimulation electrode: the signal was obtained without or with stimulation of wound tissues at the distance of > 7 mm with the range from 0.05 to 1.0 units (m ± m = 0.23 ± 0.01 u) with the height and frequency in the range from 1 to 20 kHz (m ± m = 10.71 ± 0.2 kHz). Stimulation dipstick approaches the recurrent nerve at the distance of 4-6 mm and the height of signal is unchanged, the value of frequency increases in proportion to the range from 3 to 21 kHz (m ± m = 13.3 = 0.02 kHz). With further approximation of the active electrode to the lower laryngeal nerve at the distance of 2-3 mm the height of signal increases from 0.1 up to 11 units (m ± m + 0.36 ± 0.057 u) and frequency – from 7 to 22kHz (m ± m = 14.44 ± 0.16 kHz). While the recurrent nerve being stimulated the signal indicators were the highest in all cases and had the range of height from 0.2 to 1.3 units (m ± m = 0.54 ± 0.0014 u) and frequency from 8 to 25 kHz (m ± m = 16.5 ± 0.24 kHz). The intensity of signal decreases with the distance from stimulating electrode to the nerve, giving a possibility to verify an intraoperative nerve among the tissues of the wound.

With further removal from the nerve the level of signal went down according to the distance stimulating electrode to the nerve and returned to the initial level, the exception there were tracheal tissues and laryngeal cartilages, as they have much more higher electrical resistance.

Result of researches. The results of the research are very successful. We identified and monitored 91 recurrent nerves in 65 patients operated on thyroid disease and there were no cases of transient or permanent paresis of vocal cords. These results are confirmed by otolaryngologist.

Our results are unique, according to the data of analyzed literature any of existing methods, deal with identification and monitoring of laryngeal nerves, doesn't have such high performance.

Conclusion. The identification of laryngeal nerves among the tissues of wound by using the alternating electric current with the desired physiological

parameters doesn't lead to the reflection or depletion of the neuron-muscle system. The amplitude and frequency of the received signals and their changes directly depend on the distance from the stimulating electrode to the nerve. It allows to find the laryngeal nerves in the tissues of the wound without any mistakes.

Developed method allows to identify laryngeal nerves while operating on the thyroid gland extremely accurate without having complications such as injuries of laryngeal nerves.

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ON THE PATHOLOGICAL FEATURES OF THE COURSE OF ACUTE CEREBROVASCULAR

Pathologicoanatomic studies have always shown a basic facts about structural changes in acute cerebrovascular diseases and related by autopsies of patients described changes found, a comparison of in vivo observations. In the future held systematization of the data. With autopsy determined the cause of death of patients peculiarities of acute cerebrovascular events in each case, developing accurate statistics of death and mortality, it appears effectiveness of certain new drugs and more. During the pathologicoanatomic we get an idea of the more exciting medical initial morphological manifestations of acute cerebrovascular events, time of occurrence, as we are able to look at the opening of the changes in other organs and systems that seem to be not affected by the pathological process in vivo and are not always be recognized.

Thus, the provision of specialized angio neurological care for stroke should be conducted in angio neurological offices, patients should be delivered there as soon as possible, preferably within the therapeutic window. To optimize the provision of care to patients with acute cerebrovascular events in Ukraine must create a sufficient network of specialized stroke offices equipped devices Computer tomography or MRT, working around the clock. They should organize regular service in the department of computer tomography Military Medical Clinical Centre of Southern region to ensure that the Computer tomography of the brain in all patients with acute cerebrovascular who received inpatient treatment at the Military Medical Clinical Centre South region for two hours. They should organize round the clock duty multidisciplinary team with mandatory participation neurologist, neurosurgeon, cardiologist, rehabilitologist. Permission to transport a patient with acute cerebrovascular shall provide qualified angio neurologist who will then deal with the treatment of the patient, not the physician, organizer or representative of the administration.

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FEATURES OF STRUCTURAL AND FUNCTIONAL PROPERTIES OF BONE TISSUE IN PATIENTS WITH SOMATIC PATHOLOGY. POSSIBILITY OF DENTAL IMPLANT

We detect early pathological changes musculoskeletal system and recommend preventive measures to ensure the effective reduction in the risk of violations of structural and functional properties of bone with osteopenia and osteoporosis in patients with dental implants.

The analysis of the structural-functional state of bone tissue in patients examined showed that of 200 patients only 64 (32%) patients' densitometric parameters – FE CT, SRU, SHOW answered age norm. The remaining 136 (68%) patients were found breach of the structural and functional properties of bone as osteopenia different severity in 108 (79.41%) and osteoporosis in 28 (20.59%) patients.

Completed research of the main parameters of the structural and functional state of bone tissue, bone formation markers and the levels of calcium regulating hormones on patients, who have been planning dental implants, discovered imbalance of bone strength characteristics, changes in the levels of calcium regulating hormones and markers of bone formation, indicating the need for prevention and treatment carried out for this group of patients at all stages of the care and treatment.

PREVENTIVE MEDICINE

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BULLING AT THE SCHOOLS AS A FACTOR OF MENTAL ILL HEALTH

Children and young people are the most sensitive group as to changes of any kind, which as a calque reflects modifications taking place in the modern society. Two main important systems, which take place in the child development are family and pedagogic surroundings. Unhealthy atmosphere of some schools gives possibility to thriving of the violence development, to be more precise-persecution aggression, the term for which is "bulling". The latter influences negatively the possibility to study successfully, their psychological and psychical state.

The leading countries that education is a social lift that allows to improve the life chances of every individual, regardless of social status and place of residence. "School – is the main area, which is the practice of growing. The results showed that it is the ratio of the head of the educational institution to the classroom is a leading factor in determining social and psychological climate of an educational institution, regardless of the socioeconomic level of the school. All students 8-10 years are able to use tools bully, although about 40% of children use it often. At the same time some of the children – about 13% – are actively using baiting. Most prevalent (about 40%) with verbal abuse – the most safe and those that impunity for aggressors, in second place (about 20% each) are physical abuse and mental oppression, at the Place of the latter (about 15%) – the prohibition and neglect (stigma). In the transition from elementary school to high bully mostly weak. But of some children – a stable personal trait, with age only change its form of manifestation. It is clear that this feature is "born" in the family and carries the imprints of the specifics of the family system. As for family risk factors bully then they can be considered: the absence of his father, depressed mother, violence in the family. Children get used to behave aggressively in relation to the weak, and observing the daily life of the family. Often buleramy are children whose parents teach dominant treatment, suppression of others, defending their interests. Children who suffer from parental cruelty and psychopathy, abandoned, deprived of maternal warmth and tenderness, as often became ahressors. Medicine, including child psychiatry, may become the moderator, who will help establish a common language for all adults and organize meaningful opportunity to be heard and to get timely help a child that is in stressful situation harassment.

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COMPARATIVE CHARACTERISTICS OF THE PSYCHOLOGICAL STATUS OF STUDENTS OF DIFFERENT SPECIALTIES BY L.I. VASSERMAN METHOD OF DIAGNOSING THE LEVEL OF NEUROTICISM

Chosen method determines levels of neuroticism personality. A high level of neuroticism indicates severe emotional excitability, which is witnessing negative experiences (anxiety, tension, restlessness, confusion, irritability) and formed character traits such as lack of initiative, self-centeredness, which leads to a fixation on the hypochondriacal somatic sensations and personal shortcomings. Low level of neuroticism shows "emotional stability, a positive background experiences (calm, optimistic) about the initiative, about self-esteem, independence, social boldness, about easiness in communication".

The results of comparative characteristics of the psychological status of students are:

I course. The lowest rates of emotional stability showed students of the Institute of national and international law, and indicators of emotional instability of women of this institution differed from that of the other two units towards some instability. The highest rates of emotional stability showed students of economics and management faculty, and emotional stability of indicators of women were 100%.

II course. The lowest rates were observed in emotional stability students of linguistics and translation faculty, and the manifestation of emotional instability were more prone women. The highest rates were recorded in the emotional stability of women of the Institute of national and international law. Among tested men are students of economics and management faculty were the most stable, capable of initiative and social contacts.

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NATIONAL GENIUS ON THE 150TH ANNIVERSARY OF THE BIRTH OF V.I. VERNADSKIY, THE UKRAINIAN SCIENTIST AND FOUNDER OF GEOCHEMISTRY, BIOGEOCHEMISTRY, RADIOGEOLOGY

In scientific activity Vladimir Ivanovich Vernadskiy gradually shifted from the study of minerals to the study of the earth's crust, from the study of dead matter to the study of living matter. Separated from mineralogy and not joining entirely to chemistry and biology, geochemistry developed, scientist seen mission in the study of the "history" of minerals, ie the dynamics of movement of chemical elements in the earth's crust.

V.I. Vernadskiy defended his doctoral dissertation devoted to crystallography in 1897. The next year he established himself in the position of extraordinary professor. To the end of the XIX century form a scientific school began to form, which developed the ideas of Vladimir Ivanovich, from which later emerged the outstanding scientists of the XX century: V.V. Karandeev, G.O. Kasperat, A.E. Fersman, P.K. Aleksat, K.A. Nenadkevich, Ya.V. Samoilov.

At the beginning of XX century V.I. Vernadskiy has occupied a prominent place among the Russian scientists. V.I. Vernadskiy studied the philosophical problems of natural science, basing his understanding of science and the human on the philosophy of the founder of the European E. Kant's epistemology [5, 6].

Developing the teaching of his master V.V. Dokuchaev, who identified the soil as a special natural organic mineral formation, V.I. Vernadskiy studied the dynamics of geological formations. Based on the results of his research V.I. Vernadskiy proposed evolutionary theory minerals, has made an enormous contribution to the geochemistry by ex-

amining the distribution of chemical elements on our planet. He first drew attention to the movement of chemical elements, carried out by wildlife in the biosphere, studied the chemical composition of the biosphere, and proved experimentally investigated the role of different organisms in the migration of chemical elements in the earth's crust than contributed to the development of biogeochemistry. V.I. Vernadskiy, being a great thinker and a true scholar and lexicographer, never separated from the national science world and maintains an active research and personal contacts with scientists from around the world.

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TEACHING THE BASICS OF COSMETOLOGY IN THE PROCESS OF UNDERGRADUATE AND POSTGRADUATE EDUCATION OF DERMATOVENEROLOGISTS AND COSMETOLOGISTS

When teaching the basics of cosmetology (for thematic courses) during both undergraduate and postgraduate education careful attention should be given to the following topics:

1) the structure and function of the skin;

2) diagnosis and staging of the skin and cosmetic dermatologic diagnosis;

3) peels;

4) injection techniques in cosmetology;

5) hardware techniques in cosmetology;

6) clinical pharmacology and cosmetology;

7) basic aesthetic skin problems and their correction.

One of the current topics and practical lectures at these stages is "Structure and function of the skin". As knowledge of the structure of the skin at different levels (from the molecular to the organ), the operation of the structural formations of the skin, normal and pathological anatomy and physiology of the skin provide a deep understanding of physiological and pathological processes that occur in the outer coverings of the body. It helps to select the optimal, most effective and safe, individualized cosmetic procedures for persons with different characteristics of the skin.

While teaching cosmetology during undergraduate and postgraduate education relevant specialists careful attention should be paid to the main sections of cosmetology theory and practice, education should bear practical orientation and a theoretical justification for the further application of knowledge as physicians in the treatment of dermatological diseases, and aesthetic correction of deficiencies pharmacists-cosmetologist – for quality control of cosmetic tools.

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ORGANIZATION OF INDEPENDENT WORK OF STUDENTS IN HIGHER MEDICAL INSTITUTIONS IN CONDITIONS OF CREDIT – A MODULAR SYSTEM OF EDUCATIONAL PROCESS

In terms of the inclusion of Ukraine in the Bologna education process is particularly acute question of organization and control students' independent work, introduction of credit – module system as a progressive form of training specialists becomes relevant. High school gradually shifts from the transmission to the leadership development of students independent work skills, which is a special form of training activities aimed at creating and independence of students mastering their body of knowledge, abilities, skills, carried out with the introduction of an appropriate system of all types of classes.

Independent work – is an active cognitive activity that involves not only reinforce your knowledge, but also a creative individual thought process of teaching students a form of educational process, covering both before class, class, and testing work of students and develops self thinking promotes the development of appropriate skills. Specificity of training students in higher education is due to a medical facility goals and features of their future careers, the need to perform important functions not act on the pattern of research and intelligently analyzing the results of their work. It can be successfully implemented in medical practice, provided that at the core of training in the medical college is the logic of the development and deployment of professional self-employment.

It is shown that properly organized self-study creates favorable conditions for the development of cognitive abilities of students and enhance their performance in the classroom.

PHARMACEUTICAL SCIENCES

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METHODOLOGICAL ASPECTS OF DOSAGE FORMS WITH MICROCAPSULES

Microcapsules dosage form characterized by a number of advantages. Application of microcapsules in pharmacy to reduce the reactivity of substances, extend shelf life unstable and perishable substances give new physical properties of products – to reduce volatility, change the density, mask the color, taste, smell , and also allows you to receive medications prolonged action. Currently, the number of microcapsules designed dosage forms: ointments, suspensions, emulsions, capsules, etc.

Researchers prepared microcapsules drugs different pharmacological actions and physico- chemical properties. Examples of such drugs are microcapsules Pentamidine, Captopril, Diltiazem and Metoprolol, Ampicillin, Ketoprofen, Buprenorphine, "Lomir" "Altiazem" and many others etc. As an example, the microcapsules modified Amoxicillin, releasing the active ingredient from the digestive tract for a prolonged time (up to 30 h).

The purpose of this study is to develop an integrated approach to the creation of the microcapsules.

The paper conducted a comprehensive study to develop a methodological framework creating microencapsulated dosage forms. Methodological framework includes a number of stages, providing for the physical and chemical properties of drugs and destination microcapsules, whereby the selected film-forming material and technology the best option.

In the future, optimize the composition based on rheological parameters and saturation of the interface. Based on the received parameters are optimized concentration and composition of a surfactant, if necessary, the rheological properties are adjusted by adding appropriate excipients.

Later developed technological scheme of production in relation to industrial conditions with the development of appropriate legal and technical documentation. At the final stage the pharmacological studies developed microencapsulated formulation.

BIOCHEMISTRY

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MONITORING OF THE CHEMICAL STRUCTURE AND PROPERTIES OF ODESSA'S SAND BEACHES

The work was made in the laboratory of "Scientific expert monitoring centre and environmental studies", organized at the department of Environmental Chemistry of the Odessa State Ecology University.

The values of Eh and pH were determined in accordance with GOST 26423-85, this standard establishes a method for determining the pH of the aqueous extract from the soil during their surveys. The essence of the method consists in the extraction of water soluble salts of soil with distilled water in a ratio of 1:5 water to soil and then the potentiometric determination of the characteristics of the aqueous extract with a pH meter.

It was made such conclusions in the article:

1. Dynamics of change of Eh sand beach of Odessa "Gold Coast" in the autumn-winter period was an extreme character corresponded to the established system in reductive mode.

2. Value of redox potential run low from 30 to 98 mV.

3. It was a clear dependence of the equilibrium redox systems prevailing in the beach sand from natural factors – temperature and humidity of the atmosphere in the study period.

4. Quantitative and qualitative structure of reclaimed sand deserves special study. Particular attention should be paid to the barium compounds. The concentration of barium in the sand inwashed significant – 1.389%. Compound with the waste products of the micro flora can be transformed into soluble and very toxic substances.

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BIOCHEMICAL STUDY OF ORAL FLUID WORKERS ILICHEVSK COMMERCIAL SEAPORT

To achieve the goal it were examined 45 employees of Ilichevsk commercial seaport.

Experimental group was consisted of dockers (30 people), regularly engaged in the unloading of nickel, manganese and iron ore. Maximum allowable concentration of pollutants in the air berths 3-5 times higher than normal, which allows us to consider these conditions as chronic intoxication of organisms' workers. The control group consisted of 30 employees engineering services ICSP whose activities do not involve harmful conditions. Depending on age, investigated was divided into three subgroups. First subgroup were men aged 21-30 years, the second – at the age of 31–40 years and the third – at the age of 41-50 years.

Biochemical studies were conducted using unstipulated saliva which was collected from patients in the morning on an empty stomach, by spitting it for 5 minutes in a volumetric centrifuge tube placed on ice. For biochemical studies of saliva supernatant were collected, which was obtained by centrifugation for 15 minutes at + 4°C and rotation speed of 3000 rev/min.

We conducted biochemical studies of oral fluid led to the conclusion that for the prevention of lesions of oral tissues from the port workers should be appointed containing lysozyme drugs, protease inhibitors, drugs osteotropic action.

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