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Structural mechnisms of intraorganic cytoprotection under the condition of burn disease fluid therapy

Introduction. Despite the fact that numerous monographs and articles reflect the different aspects of adaptation and compensation of dislocated functions in burn disease, overall it development at this time, according to researchers, leaves much to be desired. This is due to the fact that in a number of circumstances, the various specialists in learning pathological processes traditionally pay more attention to "negative" component ("breakdown") of these processes as "positive", that is, how the body copes with this "breakdown" and continues to live.

Marked features of studying a compensatory-adaptive reactions of the organism in burn disease equally relate to clinical, clinico-anatomical and experimental research. In all these studies the disorders of functions and structures damage internal organs greatly predominate over attempts to reveal the latest signs of defensive, adaptive reactions.

Materials and methods

Experimental study of morphological changes in the thymus, adenogipofize, nadpočečnike, kidney and group lymphoid nodules ileum in burn disease (after 1, 3, 7, 14, 21, 30 days after burn injuries) and subject to the infusion of colloid-giperosmolârnyh preparations dezintoksikacionnogo, rheological, energy, protivošokovogo the HAES-LX-5% and milk proteins with sorbitol (a brand name of the drug is "Laktoprotein-s") was performed on 90 rats Wistar line male rats weighing 155-160 grams.

The content and handling of animals in accordance with the "general ethical principles of animal experiments", adopted by the first National Congress on

Bioethics (Kiev, 2001), also followed the recommendations of "European Convention for the protection of vertebrate animals used for experimental and other scientific purposes" (Strasbourg, 1985) and the provisions of the "Regulations for the clinical evaluation of pharmaceuticals safety (GLP)".

Conclusions

1. Acommon manifestation of pathological changes in the internal organs during thermal injury to the skin and the ones of burn disease is alteration of their brain barriers.

2. The structural alteration of brain equivalent of barriers in the internal organs in burn disease is the development of edema and hemorrhage, and education through transmural′nyh defects ("design") in the wall of the blood capillaries and venules and intercellular vnutriorgannyh extensions ("penetration").

3. Laktoprotein with sorbitol and HAES-LX-5% when you burn disease are cyto-and angioprotektornye properties that inhibit the development of edema and haemorrhages appear, warn al′teraciû cells contributes to repair organs.

4. The application of milk proteins from sorbitol enabled clearly visualize typical of burn disease "of" and "infiltration" in the internal organs and assess as compensatory all the structural changes that have been associated with the formation of the internal organs "membranopodobnogo complex".

Key words: burn disease, cytoprotection, electronic microscopy.

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SELF-ORGANIZATION EMERGENCY MEDICAL CARE DURING A RALLY IN YEVROMAYDANI

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The events that occurred in the country since 21.11.2013 till 03.10.2014, was the prerequisite for the emergence of a new system of self-care in the cells of an emergency that deserves detailed study. Particular attention is drawn to the fact that it

was formed under conditions of chaos, thanks to the dedication and sacrifice of health workers , medical students and volunteers who took part in its formation and the most effective work. Activists Medical Service of Maydan had to work under conditions close to the military , assisting directly in the cell.

The aim of our study was to describe the structure of self-emergency medical care to victims in the collisions on Yevromaydani. Compare the principles of the national system of emergency medical care to victims in emergency situations with foreign counterparts.

Materials and methods

The sources of information about the activities of the Medical Service of the square was officially released data from the Ministry of Health of Ukraine, the message from the coordinator and his own observations during his stay in the cells of confrontation.

Results and discussion

Four months doctors capital and volunteer doctors from different countries showed themselves as true heroes. In carriages "fast " in the firing line, with the operating table in intensive care wards - everywhere doctors , nurses and nurses working in emergency mode for several hours without leaving the operating room, without having to leave the barricades. And in the days of the most intense confrontations they were on the verge of physical exhaustion , barely coping with an endless stream of victims and wounded.

On one side were not doctors, surgeons and students volunteer Vinnitsa National Pirogov Memorial Medical University.

To improve the coordination of activities of doctors , paramedics , nurses , students, volunteers were united in «Medical hundred». Organize their work dealt coordinators. In order to approach aid directly to the cells of the events was established aid stations, which are located in the Kyiv City State Administration (KSCA), the Central House of Officers of the Armed Forces of Ukraine, the National Parliamentary Library of Ukraine, in the halls of the house at Hrushevskoho 4 and, Khreshchatyk 7.

The first data on the number of victims of the mass rallies in Kiev, Ukraine Ministry of Health took 18.2.2014. During the period from 18.02.2014 to 28.02.2014 by

activists Yevromaydanu there were 88 killed and 881 wounded by police and killed 16 and injured 625 people. Everyone affected by the MIA brought to the hospital by an ambulance, which was the official registration and compulsory. Help activists provided medical service and hospitals Square in Kyiv, and the evacuation was carried out in part Ambulance services, but in most cases, transportation activists avtodozoru, citizens who were near the Maydan, caring people. A large number of injured people of Kiev provided assistance in their own homes. Therefore, an accurate register and registration of victims could not be determined.

Regarding the provision of medical care to the most barricades, the next they were medical personnel in the brigade of call signs (crosses for helmets, crosses on white T- shirts with the symbol of medical assistance Square), which for advice via surgeon or therapist performed medical procedures - treated wounds imposed aseptic dressings, consult with a specialist surgeon, physician, and if necessary evacuate the victim to the nearest medical center. To protect medical volunteers used construction helmets, painted white which stuck the Red Cross, as well as building and construction goggles respirators.

Conclusions

1. Self-organization emergency medical assistance should be called Yevromaydani efficient system that has worked in an emergency situation in Ukraine.

2. Near the center of the emergency, at a distance of 50-100 m, in terms of prevention of ambulance crews Directions, it is reasonable for the formation of units 4-5 of noshamy, medical bags and equipment of personal protection. Victims evacuated to the aid station, which is near that provide skilled and specialized medical care.

3. Poterpilyh with polytrauma, severe injuries of the chest or abdomen or unconscious immediately evacuated from the clinic in specialized hospitals.

The experience of providing emergency medical and roads in areas of local conflicts requires further study, improvement and implementation of such cases in the practice of disaster medicine.

Key words: Emergency medical care, Maydans Medical Service, self-organization.

UDC: 613.952 : 369.712 : 303.094

Serheta D.P.

Prognostic evaluation of features conditions of life activity and personality characteristics of mothers who gave birth in the context of determining their relationship to the physical characteristics of newborns

Vinnitsya national medical university named after M.I.Pyrogov (Pirogov str.,56, Vinnitsya,Ukraine)

Summary. In the course of studies on the basis of the implementation of correlation and cluster analysis carried prognostic evaluation of features conditions of life activity and personality characteristics of mothers who gave birth in the context of determining their relationship to the physical characteristics of newborns. It was determined that the structure of health and social characteristics and housing and living conditions and social life of everyday activities and daily work of adapting their mothers greatest relationship with leading indicators of physical development of newborns are indicators that determine the serial number of pregnancy and childbirth, presence of complications of pregnancy and a history of abortion, maternal age, body weight mothers before birth, especially the place of residence, family status, social status and occupation of mothers. However, the structure of personality characteristics of mothers who gave birth to the greatest relationship with the leading indicators of physical development of newborns are indicators that determine the characteristics of neurotism, state and trait anxiety, asthenia and depression, character accentuation of personality traits of emotive, anxious, excitable and dysthymic types, locus of subjective control scale in professional relations and health and disease.

Key words: physical development, newborns, mothers, conditions of life activity, personality characteristics, prognostic evaluation.

UDC: 611.36:572.7-613.956

Melnik M.P.

Features of morphometric parameters of pancreas and gall bladder in urban men and women of podillya depending on age and sex

Vinnitsya national medical university named after M.I.Pyrogov (Pirogov str.,56, Vinnitsya,Ukraine)

Summary. On the basis of research center of Vinnitsa National Medical University named after Pirogov conducted a comprehensive survey of 114 urban men aged 22 to 35 years and 126 women aged 21 to 35 years. The survey included ultrasonic research of abdominal cavity, in which were identified boundary of confidence intervals and pritsental magnitude of sonographic parameters pancreas and gall bladder in healthy men and women of Podillya general and different age groups and examined age and gender characteristics of these parameters. In particularin men not found statistically significant age differences of sonographic parameters of the pancreas, and the representatives of women found that head width, thickness and height of the tail of the pancreas was significantly larger (or the tendency to larger values) in women 26-35 years than women 21-25 years. In persons of both sexes does not have a statistically significant age differences of sonographic parameters gallbladder. Most of sonographic parameters pancreas and gall bladder were significantly higher in men than in women.

Key words: pancreas, gallbladder, ultrasound, mature age, sex differences.

UDC: 615.28

Nazarchuk O. A.

Modern aspects of the research and usage of antiseptics in medicine

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Summary. In the article the results of the research, showing high antimicrobial qualities of antiseptics decamethoxin, decasan, antimicrobial composition of decamthoxine, chlorhexidine digluconate against museum and clinical strains (*S.*

aureus (n 65), *E. coli* (n 55), *K. pneumoniae* (n 16), *P. aureginosa* (n 18), C. albicans (n 10) in unfavorable conditions (microbial load, changing pH, high concentrations of proteins) are presented. Slow forming of resistance of *S. aureus, E. coli* to decamethoxine, decasan, antimicrobial compositions was shown.

Key words: antiseptics, decamethoxine, decasan, antimicrobial composition, chorhexidine.

UDC: 611.9:575.191:612.017.1:612:656

Pinchuk S.V.

Computer tomography sizes of lumbar spine in the median-sagittal slice in healthy girls of podillya with different somatotype

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Summary. This article describes the differences computed tomographic size of the lumbar spine in the median sagittal-sections in healthy girls of different somatotype. In most cases, girls mesomorph and with middle intermediate somatotype set significantly lower and tendency to smaller values of the anterior and middle altitudes of the bodies of the first two lumbar vertebrae compared to other girls somatotype. Half vertical size (posterior height of the first, front height of the fourth lumbar vertebrae, front and rear height of the lumbar spine), despite significant differences in their values people of different somatotypes do not have defined possession of larger or smaller values of a certain somatotype. The height of the third-fifth intervertebral disc in girls mesomorph and fifth intervertebral disc height in girls with an average intermediate somatotype tends to lower values compared to girls endo-mesomorph. The average width of the bodies of the first and fourth vertebrae was significantly greater than or tends to larger values of endo-mesomorph girls compared to girls mesomorphic and with middle intermediate somatotype.

Key words: computed tomography, lumbar spine, morphometry, healthy girls, somatotype.

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Serheta I.V., Vlasenko O.V., Vysochanskiy O.V.

Correlation of indicators rheovasography of hip with anthropometrical parameters in healthy boys and girls of podillya with ectomorphic somatotype

Vinnitsya national medical university named after M.I.Pyrogov (Pirogov str.,56, Vinnitsya,Ukraine)

Aim of our work – defining relations indicators of rheovasography (RVG) hips with anthropometric parameters in healthy urban teenagers with ectomorphic somatotype.

Materials and methods

From the database of Research Center Vinnitsa National Medical University named after Pirogov was selected 108 practically healthy girls and 103 boys.

Anthropometric survey of teenagers conducted in accordance with the scheme of Bunak (1941); determining somatotype by the method of J. Carter and B. Heath (1990). Standing next somatotype distribution among the studied adolescents: mesomorph - 32 boys and 31 girls; ectomoph - 33 boys and 50 girls; ectomesomoph - 35 boys and 20 girls.

RVG hip parameters were determined using computer diagnostic complex that provides simultaneous recording of electrocardiogram, phonocardiogram, basic and differential tetrapolar rheogram and blood pressure. We determined the base impedance, the duration of the downturn and rising RVG, duration of fast and slow blood supply; notch amplitude, rapid blood filling, diastolic and systolic wave; dicrotic and diastolic indices; average speed of fast and slow blood supply; indicators tone of arteries of different caliber and the ratio of arterial tone.

Analysis of correlations obtained results were licensed in the statistical package "STATISTICA 6.0" (belongs to VNMU named after Pirogov, license № AXXR910A374605FA) using the statistical method of Spearman.

Results

In boys with ectomorphic somatotype vast majority of ties peripheral hemodynamics according to RVG hip anthropo-somatotypological parameters of body were relapsed (86.7%). The largest number of connections with constitutional parameters recorded for: base impedance, the length of the downward RVG, average speed slow blood supply, the amplitude of systolic wave, indicator tone of all arteries and amplitude of rapid blood supply. Among the constitutional parameters largest number of connections established with: covering body size; transverse dimensions of the body; thickness of skin and fat folds up and anthropometric points.

In girls with ectomorphic somatotype, according to the RVG hips, unlike boys of similar somatotype, reliable connections evenly divided into forward and backward. Number of strong inverse or average force direct links prevailed over the number of strong direct or mean force feedback. The largest number of connections with the constitutional parameters fixed for: average speed of rapid blood supply, the duration of the ascending part of the RVG, the average velocity of slow blood supply, indicator tone of all the arteries, arterial tone and shallow medium caliber, duration and amplitude of slow blood supply blood filling of rapid. Among the constitutional parameters largest number of connections established with: covering body size, thickness of skin and fat folds, lateral dimensions of the trunk and up anthropometric points.

When comparing the characteristics of the studied parameters relations rheovasography of hip with anthropometric and somatotypological parameters of body with results obtained on a similar sample on the shin, we establish their significant qualitative and quantitative differences.

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Makarchuk I.M.

Differences of total and longitudinal body size between healthy and patients with acne boys and girls with and without the somatotype

Vinnitsya national medical university named after M.I.Pyrogov (Pirogov str.,56, Vinnitsya,Ukraine)

Clinical manifestations of dermatological pathology within the framework of whole body can be viewed from the standpoint of constitutional approach considering that each constitutional type peculiar to the profile of the pathological process.

Aim of our work – set differences of total and longitudinal body size between the total group of healthy people and patients with acne boys or girls with and without the somatotype.

Materials and methods

A clinical laboratory and anthropological examination of 84 patients with acne boys and 116 patients girls of Podillya have done. The results are compared with data anthropo-somatotypological survey of 150 healthy boys and 160 girls of similar age and region of residence of the database of research center Vinnitsa National Medical University named after Pirogov.

Applied the following methods: general clinical - to verify the diagnosis of acne; anthropometry by the method of Bunak in the modification of Shaparenko [2000]; determining somatotype by the method J. Carter and B. Heath [1990]; statistical analysis of the results carried out in licensed statistical package "STATISTICA 6.0" using parametric and nonparametric methods.

Results. Discussions

In healthy young men without regard to somatotype found significantly ($p < 0,05$-$0,001$) smaller differences in majority of longitudinal and tendency to smaller values of weight and body length compared with the respective groups of patients youths in general and with various degrees of acne. The height of pubic point in healthy young men without regard to somatotype significantly ($p < 0.05$) higher compared with the corresponding group of young patients with mild severity of acne. In healthy young men mesomorphic somatotype established tendency to smaller body surface area and the majority of longitudinal body size compared with the corresponding group of young patients in general and with different degrees of severity of acne.

In healthy women without regard to somatotype established tendency to lower values of body weight and height over the sternum and trochanter points compared to the respective groups of patients in general and girls with different degrees of acne.

It is established that value of majority total and longitudinal body size is statistically significant (p <0,001-0,05) higher in healthy as well as in sick boys mesomorphic somatotype and without taking into account somatotype of total group and with different degrees of severity of acne compared to girls matching groups.

UDC: 616.2:013.87

Dmitrenko S.V.

Immunohistochemical analysis of cell renewal and immune response in ichthyosis

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Introduction. Since no understanding of the pathogenesis of ichthyosis in molecular cellular level, there is no effective pathogenetic treatment of this disease. Thus, the aim of our study was to assess the state of epithelial cell renewal and local immune response in different types of ichthyosis before and after the application of sequential therapy using retinoids.

Materials and methods On the basis of postmortem Vinnitsa regional office, patolohohistological laboratory of pathological anatomy VNMU studied skin biopsies of 12 patients with various types of ichthyosis. Age of the patients ranged from 19 to 69 years and averaged 32,6 ± 3,87 years.

Results and Discussion. The epithelial cell renewal and the role of T-lymphocytes in the immune inflammation in patients with various types of ichthyosis using immunohistochemical methods were studied on the basis of biopsy material analysis**.** The contents of CD4+ helper lymphocytes, CD8+ suppressor/cytotoxic lymphocytes in the affected skin in patients with ichthyosis were analyzed. The development of immune inflammation in the skin of patients with ichthyosis occurs with the involvement of CD4 + cells and CD8 + T lymphocytes, the number of them

significantly increases. The disturbance of epidermal proliferation and differentiation of epithelial cells, as well as dysregulation of cellular immune reactions in the skin is one of the major pathogenic mechanisms of pathological changes of the epidermis in patients with ichthyosis.

Conclusions and prospects for further development

1 Pathological analysis of skin biopsies of patients with ichthyosis possible to separate the two main forms of ichthyosis course depending on the severity of pathological changes: easy and hard.

2 In patients with severe forms (BIE) is installed increased proliferation of epithelial cells by Ki-67 in the basal layer. Index proliferatsiynoyi activity of epithelial cells can be used for prognosis and monitoring treatment of patients with severe ichthyosis.

3 Step regimen ichthyosis using retinoids for the stabilization and improvement of pathological changes in the skin and can be offered for differentiated treatment of various forms of ichthyosis.

Key words: ichthyosis, cell renewal, local immune response, pathomorphological changes

UDC: 611.018.51-519.686

Yacenko O.V., Knish V.C.

Erythron of peripheral blood as a parameter anthropometric data rings in algorithms for new technical solutions (preliminary report)

Summary. The paper presents preliminary data on the possibility of creating an automated workplace of the doctor - a hematologist for quantitative morphometric analysis of the peripheral erythron experimental animals and humans. Describes the preliminary results of the use for this purpose the method of scanning images of four types of red blood cells (normocytes, ehinocytes$_3$ (Eh$_3$), ovalocytes (Ov) and blood cells similar to the target erythrocytes (Te$_1$) in the RGB (red, green, blue) format. With the help of complex programming Matlab 2014 were used function s = skewness (X) and k = kurtosis (X) in order to obtain quantitative parameters

(asymmetry and kurtosis) for scans of cells that have been studied. The obtained results demonstrate the promise of the selected campaign to create automated job of the hematologist with the aim of solving theoretical and applied problems of medical anthropology.

Key words: human, peripheral blood, erythron, anthropometric indices, new technical solution, algorithms.

UDC: 591.8:616.24:599.323.4:616.5-001.17:615.272

Chaikovskii Yu. B., Korol A. P., Makarova O.I.

Ultrastructural features of respiratory tract lungs of rats in remote period after thermal burn its skin

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Summary. In the course of the studies identified ultrastructural features of the respiratory tract of the lungs of rats at 14, 21 and 30 days after thermal burn its skin. It was found that the maximum level of destructive and degenerative changes in lung tissue was observed 14 days after the burn skin. At this time there is a range of ultrastructural changes, which includes in its structure interstitial and alveolar edema, abrupt thickening of aero-hematic barrier, damage to the respiratory epithelium and endothelium, breach of pulmonary surfactant system. In 21 days after burn injury in the respiratory epithelium of the skin and endothelium, showing signs of reparative regeneration of cells. In interalveolar septa registered hypertrophy interstitial fibrous elements, hypertrophy and hyperplasia of fibroblasts. In 30 days after burn injury of the skin in certain areas of aero-hematic barrier shows signs of destruction of the respiratory epithelium, alternating with intact plots. Part alveolocyte type II is in a state of severe malnutrition and destruction. In the basal lamina observed excessive proliferation of collagen fibers.

Key words: lungs of rats, thermal burn**,** remote period, respiratory tract, ultrastructural state.

UDC: 582.681.81:638.138:616-056.3

Poplar fluff as an adsorbent of allergenic pollen of plants

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Background: Poplar fluff was considered as an etiological factor of seasonal allergy (hay fever) in the past. However, research performed in the XXth century found hay fever etiology is associated with the plant pollen. Poplar fluff is a seed of the plant mentioned. The fluff distribution coincides with the pollination of some trees and grasses are the pollen allergy causal agents. The purpose of the work was to determine the ability of poplar fluff to hold and transfer on its surface the allergenic pollen grains in the context of causing hay fever symptoms in the population.

Methods: Samples of poplar (*Populus spp.*) fluff were taken directly from the atmosphere of Vinnitsa city and from the ambient air of the country side surrounding Vinnitsa region. Sampling time lasted from 30 April to 28 May, 2012. The selected samples were placed directly on a slide and fixed by cover slip to prevent contamination of the pieces sampled. Samples were stained with basic fuchsin as an indicator that selectively dyes the plant material including pollen in pink color. Statistical analysis of the data was performed by Excel. 45 samples were selected in Vinnitsa and 10 samples were taken in Vinnitsa region.

Results: The number of pollen grains identified on the surface of poplar seeds is enough to cause the hay fever symptoms in sensitized individuals, according to the literature data and to the data of our own research. It was established that the efficiency of pollen adsorption by poplar fluff is less than 40.0%. Seasonal poplar seed formation coincides with a period of allergenic plants pollination in Vinnytsia partially. To determine a truly risk of hay fever symptoms from contact with poplar fluff one must consider the risk of poplar seeds entry into the airways is higher near

the female trees in harvest. The risk is practically zero if such trees are far. In addition, just less than 40% of poplar fluff like it was seen in our study is able to keep and transfer the pollen grains through the atmosphere. On the other hand while the fluff gathers pollen on the surface it reduces symptoms in patients due to pollen concentration increase in the ambient air of certain place. So, poplar fluff is able to clean the urban air from allergenic pollen of birch, oak, grasses and other pollutants.

Conclusions: Thus, poplar fluff is able to absorb pollen grains and other particles from the ambient air indeed. However, the efficiency of adsorption is less than 40.0%. Season of poplar seed formation coincides with a period of allergenic plants pollination in Vinnytsia partially. Poplar is not a plant, which poses a significant risk to human health in urban ecosystem. Its pollen does not cause hay fever symptoms and poplar fluff is able to purify urban air from allergenic pollen of birch, oak, grasses and other pollutants. It’s recommended to avoid places of poplar fluff high concentration in cities in order to prevent mechanical irritation of the upper respiratory tract and avoid the possible risk of sensitization to grass pollen. Especially it’s important on late May and on June.

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Sheremeta R.O.

Features echocardiographic size of the left ventricle, atrium and aorta in healthy men and women of podillya

One of the most important organs in the study of which echocardiography plays a crucial role, is the heart. Quantification of changes in macroscopic parameters of each organ in any of its pathology must start from a "point frame of reference". So the starting point is the notion of "norm". However, there are different quantitative versions of heart, depending on the genetic, constitutional factors, geographic area, living conditions, work, nutrition, physical activity. Therefore, the concept of "normal heart" is quite conventional. According to many scientists, morphologists should use quantitative parameters of the heart obtained in practically healthy subjects, taking into account ethnicity and age-related changes.

Aim of our work – set features of echocardiographic dimensions of the left ventricle, atrium and aorta in healthy men and women of Podolia of the first adulthood.

Materials and methods

In 109 practically healthy men aged from 22 to 35 years and 158 women aged from 21 to 35 years echocardiography was performed by the standard technique in three standard positions in M- and D-modes with transthoracic access by the device "Ultramark-9". Conducted definition: the diameter of the left ventricle (LV) in diastole and in systole, atrial and aortic diameters, end-diastolic ratio of the size of the left atrium (EDR LA) to the diameter of the aorta.

Statistical analysis of the results carried out in the statistical package "STATISTICA 6.1" (SRC belongs VNMU named after Pyrohov, license № BXXR901E246022FA) using parametric and nonparametric methods to assess the results. The reliability of the difference between the values determined by independent quantitative variables with normal distribution by criterion of Student, and in other cases - by using the U-criterion of Mann-Whitney.

Results. Discussions

Among the total group of men and two age groups investigated all dimensions except the diameter of the left atrium, have no statistically significant different. In women 26-35 years diameter of the left ventricle during diastole and the diameters of the left atrium and aorta was significantly ($p<0,05$-$0,001$) larger compared to women overall group and women aged 21-25 years. The diameters of the left atrium and aorta in women overall group have tendency ($p = 0,056$-$0,068$) to higher values compared to the 21-25 year old female.

When comparing all dimensions of the left ventricle, atrium and aorta (with the exception of the correlation between the end diastolic left atrial size to the diameter of the aorta) in men and women in the total group and of the same calendar age identified sex differences in these indicators: all of these parameters are statistically significant ($p<0,001$) higher in males.

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Cherepakha O.L.

Mathematical modeling of cardiointervalography normative indices of the 21-25 year-old females with eukinetic type of hemodynamic according to the anthropometric and somatotypological parameters of the body

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Introduction. According to the review of scientific data the method of cardiointervalography is simple and non invasive. It is highly informative for evaluation of cardiovascular system regulatory mechanisms. This method is used for the estimation of vegetative disorder of healthy people and also for evaluation of cardiovascular pathology. There is a significant correlation between condition of vegetative regulation and mortality level from cardiovascular diseases. That is why the developing of quantitative markers, one of which is heart rate variability, for diagnostic of vegetative condition regulation is necessary. Studying of normative indices of cardiointervalography based on constitutional features of practically healthy people is important for revealing the most tangible reasons of cardiovascular system diseases development. Gender and age should be taken into account for better interpretation of mathematical models of normalization cardiointervalography indices.

The aim of this research was modeling of cardiointervalography normative indices of 21-25 year-old healthy females with eukinetic type of hemodynamic based on peculiarities of their anthropometric and somatotypological body parameters.

Materials and methods. The investigation was conducted on 67 healthy urban 21-25 year-old females. All women were measured by Bunak method, the Heath/Carter anthropometric somatotype method, body composition J. Matiegka method and anthropometric measurement of muscle mass. According to the aim of our investigation anthropometric examination data of these women were pooled from databases of Pirogov Memorial Medical University, Vinnitsya.

Rheovasography and cardiointervalography were conducted with cardiologic

computer diagnostic complex. Regression models of cardiointervalography normative indices were built for 41 female with eukinetic type of hemodynamic based on peculiarities of their anthropometric and somatotypological body parameters.

Results and discussion.

Regression models were built using the regression analysis. In females with eukinetic type of hemodynamic from 9 possible models were built 4 statistically significant ones with CIG indices.

IVR (vegetative balance index of 21-25 years old women with eukinetic type of hemodynamic) = 826,5–5,150 x dactylion height + 18,04 x biiliocristale breadth – 85,03 x bimalleolar breadth (right ankle)– 21,57 x anterior-posterior chest depth + 4,236 x trochanterion height – 14,65 x ankle circumference

VPR *(vegetative rate index of 21-25 years old women with eukinetic type of hemodynamic)* = 18,75 + 0,412 x biiliocristale breadth– 3,102 x bimalleolar breadth (right ankle)– 0,344 x вік + 0,429 x foot circumference (ball of foot) – 0,106 x chest circumference + 0,260 x ectomorph component of somatotype

LF (low frequency range capacity *of 21-25 years old women with eukinetic type of hemodynamic)* = 14739 + 267,1 x dactylion height – 367,0 x foot circumference (ball of foot) – 483,4 x neck circumference (base) – 114,0 x acromion height + 403,5 x bizygomatic breadth + 201,8 x ankle circumference

HF *(high-frequency range capacity of 21-25 years old women with eukinetic type of hemodynamic)* = 2044 x minimum frontal breadth – 588,9 x foot circumference (ball of foot) + 602,0 x age – 884,7 x bigonial breadth – 460,5 x posterior lateral calf skinfold + 682,4 x mesomorph component of somatotype – 12424.

These models have practical importance for medicine and their coefficients of determination are from 0,537 to 0,670.

Conclusions:

1. 4 models were built for 21-25 year-old urban females with determination coefficients from 0,537 to 0,670.
2. Circumference body sizes, longitudinal body sizes and cephalometric sizes occurred most often in these models.

3. Constructed models allow to evaluate adaptive abilities of the female organism under the normal and pathological conditions in the future investigations.

Key words: cardiointervalography, healthy females, eukinetic type of hemodynamic, anthropometric and somatotypological parameters, mathematical modeling.

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Rokunets I.L.

The united impulsive activity of the neurons of the hippocampus ca3 area in rats under free behavior

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Resume. By means of eight-channel metal microelectrode (the single channel diameter was 12 mcm) the extracellular background impulsive activity of the 250 separate neurons and their small groups (functional pairs) in the hippocampus CA3 area of the narcotized by ketamine rats and rats under free behavior were registered. In 51 cases (20.4 %) the action potentials (AP) of two separate neurons were generated in parallel and were in functional combination, that were indicated by the fixed temporal intervals between them. The same effect was fixed both in narcotized rats and rats under free behavior. It was considered as a result of excitation of two nearby functionally united cells. Such pairs of AP were registered either by one or two nearby channels of the microelectrode. Other pair AP appeared under the generation of previous AP by the other neuron only while AP of the last sometimes could appeared being isolated. Thus, “leading” and “accompanying” neurons could be identified in the given neuron pairs. Coefficient of coupling of AP generation by the “accompanying” neuron relative to AP generating by the “leading” cell reached to 100 % irrespective of burst frequency of the last. Intervals between AP of two neurons in their different united pairs varied from 2,7 to 6,5 ms. In case of minimum values of such intervals of AP the generated neurons pairs superimposed one to one and that is why according to the classical algorithms of the neurons impulsive activity

analysis they were considered as one signal unit. It resulted in formation of impulses that looked as “complicated AP”, but in some intervals the pulse separations increased, and such AP underwent decomposition. The described data are considered as got in vivo electrophysiological confirmation of the close functional connection between considerable part of neurons of the hippocampus CA3 area, in particular spatially located close to each other (id est those that are incorporated into micropopulation).

Key words: multichannel microelectrode lead, hippocampus CA3 area in rats, micropopulation of neurons, impulsive activity.

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The frequency of caries molars in somatic healthy men from different regions of ukraine according to dental examination and cone-beam computed tomography

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Aim of our work - to set the frequency caries of molars in somatically healthy men of the first adulthood from different ethno-territorial regions of Ukraine according to the dental examination and cone-beam computed tomography.

Materials and methods

Results of clinical and computed tomographic studies obtained during the examination of the male population age from 19 to 35 years from different ethno-territorial (north, south, central, western and eastern) regions of Ukraine at the department of pediatric dentistry and Scientific Research Center of Vinnitsa National Medical University named after Pirogov and private dental clinic "Vinintermed." Somatic healthy men using a special questionnaire analysis of medical and social factors, living conditions, indicators of oral care products and subjective assessment of the periodontal tissues, resulted in 410 selected high enough homogeneous representatives from different regions of Ukraine. We used the following research

methods: studying dental status (full dental examination); cone-beam computed tomography (CT using Veraviewepocs 3D Morita) includes determining the status of the periapical tissues of the tooth crown and neck (the presence of hidden carious cavities); statistical analysis of the results carried out in the package "STATISTICA 6.1".

Results

The frequency molars surface caries lesions on the lower jaw has slightly higher values (average according to the dental examination from 18.9% in the Central region to 38.7% in the South and from 14.4% in the Eastern region to 33.3% in Southern Region according to CT) than in the maxilla (on average, according to the survey of dental from 16,0-17,6% in the Central and Northern regions to 29,2-30,5% in Eastern and Southern regions and from 15,2-17,5% in the Central and Northern regions to 27,8-29,2% in the Western and Southern regions according to CT).

The frequency caries lesions average molars in the maxilla has slightly higher values (average according to the dental examination from 12.2% in Western region to 21.1% in the Northern region and from 19,0-19,3% in the Central and Western regions to 25.5% in the South, according to CT) than on the lower jaw (on average, according to the dental examination from 9.4% in the Western region to 21.3% in the North, and from 14.8% in Western region to 18.5% in the South, according to CT).

Lesions molars by deep caries set only by the cone-beam computed tomography on the upper (approximately from 0% in the Western region to 1.9% in the South and East regions) and lower (average of 0% in the Southern region 1,4-1,5% in West, East and Northern regions) jaws.

The frequency absence of caries molars on the lower and upper jaws have approximately the same value (average according to the dental examination from 50.0% in the South to 66,4-67,3% in the Northern region on the lower and from 51.1% in Southern Region to 69.6% in the Central region in the upper jaw, and according to computed tomography - from 48.2% in the South to 66.7% in the Eastern region on the lower and from 43.5% in the South to 62,2-62,4% in the Northern and Central regions on the upper jaw).

When comparing the frequency lesions molars among different regions, the following statistically significant or trend differences: in the upper jaw - according to the dental examination in most cases, higher frequency of superficial caries in South, West and East than in the North and Central regions and higher values absence of caries frequency in Central than in most other regions, and mainly to the 26th and 27th teeth, larger values of the average frequency of caries in the North than in the Central region; according to the CT in most cases, larger values of frequency surface caries in South and West than in the North, the Central and Eastern regions and larger values of frequency absence of caries in the Central and Northern than in the Southern, Western and Eastern regions, and mainly to the 26th and 27th teeth, larger values of the average frequency of caries in the South than in the North and Central regions, and only for the 28th tooth, the smaller value of the frequency of average caries in the South than in the North and Central regions; on the lower jaw - according to the dental examination in most cases, larger values of frequency surface caries in Southern than in most other regions, and, preferably, no caries frequency values in Central, North and West than in the South and East regions, and mainly for the 37th and 46th teeth, larger values of the frequency of average caries in the North than in most other regions; according to CT primarily for 47th and 48th teeth, in most cases, larger values frequency of surface caries is in South and West than in other regions, and, preferably greater, no caries frequency values in the Central and East than in other regions.

According to CT set individual values greater frequency of medium and deep caries of molars in different regions of Ukraine (except Eastern) than in the dental examination. Conversely, by the dental examination set single greater frequency value no caries molars (mainly in Central region) and for the 47th tooth larger values of surface caries frequency in the eastern region than computed tomography data.

UDC: 616.12:611.018.835:611.89:611.013.395

Silkina Yu.V.

Ways to initiate cell death of cardiomyocytes of the embryonic human heart

conduction system

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Summary. We studied the hearts of human embryos and fetuses since 4th to 12th week of embryonic development, which were obtained during the social (non-medical) abortion. Apoptotic cells were labeled with monoclonal antibodies to the mitochondrial proapoptotic protein bax and to the surface receptor CD95 (Fas/APO1). Intensity of staining was evaluated semiquantitatively, also apoptotic index were determined. Throughout the period under study apoptotic cells were small amount. Apoptosis index of not more than 7,6±0,9%. CD95-positive cells were observed only in the early stages of cardiogenesis in zone forming of vessels; bax-positive cells were located in areas of active proliferation, but also in small amounts. Thus, apoptosis did not have a decisive influence on the cardiac conduction system development in normal cardiogenesis.

Key words: apoptosis, conductive system, cardiogenesis, human embryon.

Introduction. Apoptosis is a good enough has a form of cell death that has value not only during the functioning of the body, but during its formation, i.e. during embryogenesis. There are several ways of initiating apoptosis: through activation of genetic mechanisms, mìtohondrìal′nim way, through receptors in cytoplasm and also through receptors on plasma Lamy. Apoptosis, which starts at the level of the mitochondria, the controlled product bcl-2, which are divided into antiapoptotičnì and proapoptotičnì. The past belongs to protein bah. Outside "death receptor" is receptor CD95 (Fas/ARO1), joining lìganda which activates the cytoplasmatic kaspazi with the known consequences.

Materials and methods. Been researched human embryo heart fruit and in the period from 4 to 12 weeks of embryonic development. Processing biological material was carried out by traditional methods. In the study of biological material had adhered to the ethical and legislative standards and requirements, which must be followed when performing morphological research of human. Using conventional histological

methods of coloring (h & e stain, for Malorì-Slìnčenkom) examined the macro and microstructure of the heart of man to establish the gestational age of the embryo or fetus and for detection of defects with the purpose of culling material.

Conclusions

1. Thus, the processes of apoptosis have not had a formative influence on the development of leading system of the heart in terms of normal kardìogenezu because the number of cells at the stage of apoptoznoï deaths throughout the period of study in all parts of PSS was negligible and, even, not quite adequately reflected the level of prolìferativnoï activity. In our opinion, this is due to the fact that apoptosis is not mainstream and is not the only way of regulating the gìstogenetičnih processes in the progressive system of developing, and in myocardium perfusion in General. Proof of this is the data of many studies that testify to the role of apoptosis than in the development of pathological conditions in your heart – ischemia myocardium, kardìomìopatìâh and others. Further planned to examine ways of initiating cell death leading kardìomìocitìv embryonic hearts under the influence of teratogennih factors in an experiment.

UDC: 572.087:611.43/.47:616-073.43:611.9

Gnenna V.O.

Sonographic linear dimensions of thyroid gland in healthy men and women of different somatotype

Makes the settings of thyroid gland in terms of their constitutional diversity allows you to put more accurate diagnosis, in contrast to the steady towards identifying normative parameters gland based on age, which causes overdiagnosis hypertrophy of organ in ectomorphes or people with constitutionally a longer neck than in peers. Equally important is the consideration of ethnic and environmental living conditions of the studied sample and attracting people to experiment without clinical signs of disease, which is essential to highlight the risk of developing a disease of the thyroid gland.

Aim of our work - the establishment of linear sonographic morphometric parameters

of the thyroid gland and their differences in practically healthy men and women of different somatotype.

Materials and methods

On the basis of research center of Vinnitsa National Medical University named after Pirogov, we have examined 119 healthy urban men and 108 women of the first mature age, residents of the region Podolsky Ukraine.

Ultrasonography of thyroid gland was performed using ultrasound diagnostic system "CAPASEE" SSA-220A (Toshiba, Japan) with a convex transducer operating frequency of 3.75 MHz by conventional methods. We determined the linear dimensions of the left and right parts (length, width and thickness) of the thyroid gland, and the thickness of the isthmus.

As a result, the distribution on somatotype in men were considered representatives of mesomorphic, ecto-mesomorphic, endo-mesomorphic (except for men aged 22 to 35 years) somatotype and women - representatives mesomorphic, ectomorphic (except for women aged 22 to 35 years) endo-mesomorphic and intermediate medium somatotype (except for women aged 26 to 35 years).

Statistical analysis of the results was carried out in licensed statistical package "STATISTICA 6.1" using parametric and nonparametric methods.

Results. Discussions

We studied the constitutional features of sonographic morphometric parameters of thyroid gland in practically healthy men and women of the first mature age of different somatotype. Found that women of mesomorphic somatotype as a whole and different age groups vast majority of thickness (anteroposterior) dimensions of thyroid gland significantly larger or tends to larger values compared to women endo-mesomorph general, different age groups and with the entire group of women without somatotype. The majority of the transverse and anteroposterior dimensions of two particles of thyroid gland in women endo-mesomorph significantly lower or tend to lower values compared to women mesomorphic, ectomorphic, medium intermediate somatotype and women in general without somatotype. The longitudinal (vertical) size of the left and right parts of thyroid gland had no significant differences or trends

in the differences of their values in people of different somatotype general and age groups. Most linear dimensions of thyroid gland were significantly larger or tendency to larger values in men endo-mesomorphic and mesomorphic somatotype as a whole and in different age groups compared with women of similar age and somatotype.

The results of morphometric analysis showed that the magnitude of the linear particle size of the thyroid gland first of all determined by constitutional features and to a lesser extent - the sex, which coincides with the results of similar studies in people youth group. Thus, regardless of gender longitudinal particle size in boys and girls dolichomorphic type of body structure statistically significant higher than the size of people mesomorphic and brachymorphic type of body structure.

UDC: 616.12 – 008.46 – 036.12:577.175.722:54.017.4] – 02 - 037

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Survival of patients with chronic heart failure and left ventricular systolic dysfunction depending on clinical, laboratory and instrumental parameters (from date of one-year prospective study)

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Summary. The prognosis of patients with chronic heart failure (CHF) and left ventricular systolic dysfunction remains unsatisfactory. The article is devoted to the exploring of the factors that may underlie the better or worse prognosis of CHF. Study of prognosis of the patients with the phenomenon of insulin resistance stays particularly relevant because now the syndrome of heart failure is seen as potentially "the state of insulin resistance". For the survival analysis were used methods of descriptive statistics (construction of survival curves using the Kaplan - Meier estimation of survival median), log-rank test (for comparison of survival curves). In order to search the predictors of survival was used univariant analysis using the Cox regression, followed by evaluation of the odds ratios and 95% confidence intervals for them. Date of the hospitalization was considered as the beginning of the

observation, which lasted 12 months. The end point was combined and defined as the time of the first re-hospitalization for cardiovascular reasons or death from cardiovascular causes.The 12 months clinical course of chronic "systolic" heart failure (death or first re-hospitalization for cardiovascular reasons) shows up its dependence on functional class NYHA, left ventricular diastolic dysfunction (the E/e′ ratio), insulin levels of serum, values of HOMA-index, level of circulating tumor necrosis factor alfa (TNF-α). The worse prognosis for achieving the composite endpoint (death or first re-hospitalization for cardiovascular reasons) is inherent the patients with functional class III-IVof CHF, the ratio E/e′ >11,175, the value of HOMA ≥ 2,77, the levels of fasting insulin serum> 10.92 microU/mL, levels of TNF-α >16.48 pg / ml.

Key words: chronic heart failure, left ventricular systolic dysfunction, the prognosis, survival, insulin resistance.

UDC: 616-089.5:599.742.1:591.482:616-092.9

Gomon M.L., Burkovsky M.I.

Anatomical features perform epidural anesthesia in dogs for chronic experiment

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Objective was to study the anatomical research dissemination anesthetic in peridural space the dogs to improve the quality of peridural anesthesia in the experiment.

Methods. An experimental study was performed on dogs in 2011. When working with laboratory animals we followed the recommendations of the European Commission to conduct biomedical research using animals and methodological recommendations of the State Pharmacological Center MDH Ukraine. For anatomical and radiological studies of peridural space research used two dogs, which were derived from acute experiments in other studies. To this end, before lead out the animal from experiment was performed catheterization peridural space in the default location (between the spinous processes of L7-S1), was injected solution of brilliant

green fodder diluted 1:1 with saline. After removing the animal from the experiment, were removed from animal's spine 3-5 vertebra fragments. Deleted fragments numbered and frozen at-20oC temperature. Further cuts were carried out frozen fragments of the spine.

To study the distribution of the anesthetic on peridural space used spine radiography with 76% urohraphyne and neuroimaging by used electrostimulator StimuplexDigRC range of 0,2 to 5mA, a frequency of 2 Hz. Neuroimaging used in 9 dogs before operations.

Results. Due to the anatomical and radiological study found uneven distribution of local anesthetic during epidural administration, which causes the formation of a mosaic of anesthesia. The proposed method of neuroimaging, which clarifies the effective range of the local anesthetic. Neuroimaging clinical effect opens up opportunities as improving the quality of anesthesia and selective research opportunities epidural anesthesia for chronic experiments in animals.

Conclusions.

In the future use further development is proposed to use data on the spread of local anesthetic under the control of neuroimaging to determine the zone of anesthesia during anesthesia dogs using surgery anesthesia / analgesia.

Key words. Epidural analgesia in the experiment, neuroimaging in epidural anesthesia.

UDC: 591.147.1+591.471.36]:613.29

Morozov V.N., Luzin V.I.

Effect of mexidol on organometric parameters of white rats' thyroid gland in the readaptation period after 60-day administration of sodium benzoate

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Introduction. Sodium benzoate has a major effect on the level of enzyme activity in the microbial cells, are responsible for the breakdown of fats and starches, as well as during the redox reactions. In addition, it is able to exert a strong inhibitory effect on

the culture of mold fungus. Due to its properties additive E211 is used in the food industry as a preservative. Most often sodium benzoate found in mayonnaise, ketchup, margarine, jam, confectionery, canned fish and eggs, marmalade, fruit pastes, non-alcoholic beer and alcoholic drinks, meat products.

Currently, scientists and researchers from around the world are seriously concerned about the consequences of harm sodium benzoate, in connection with the ability of the food additive, as well as other salts of benzoic acid, accumulate in the body and affect human health.

In previous work was found that the 60-day daily administration of sodium benzoate at dosages of 500 and 1000 mg/kg body weight accompanied by a decrease in the readaptation period of the linear dimensions of the mature rats' thyroid gland, its absolute mass, volume and increase of density.

Objective: to establish the possibility of correction of the aforementioned changes by parenteral administration of the drug with antioxidant action – mexidol.

Material and Methods. The study was conducted on 245 mature white male rats, which were introduced in the experiment with the initial body weight 200-210 g, and were divided into 7 groups of 35 animals each: 1st group – control animals that daily for 60 days by gavage administered 1 ml of 0.9% isotonic sodium chloride solution; 2nd and 3rd groups – rats that daily for 60 days by gavage administered 1 ml of solution sodium benzoate at a dosages 500 mg/kg and 1000 mg/kg body weight, respectively; 4th and the 5th groups – rats that daily for 60 days by gavage administered 1 ml of solution sodium benzoate at a dosages of 500 mg/kg and 1000 mg/kg body weight, respectively, and intramuscularly 1 ml of 0.9% isotonic sodium chloride solution (control groups to the 6th and 7th groups); 6th and 7th groups – animals that daily for 60 days by gavage administered 1 ml of solution sodium benzoate at a dosages of 500 mg/kg and 1000 mg/kg body weight, respectively, and intramuscularly 1 ml of 5% solution mexidol for 50 mg/kg body weight per day in the afternoon (from 14 to 15 hours). The terms of readaptation period were 3, 10, 15, 24 and 45 days. Animals were removed from the experiment by decapitation under ether anesthesia, allocated thyroid gland and using caliper measured length, width and

thickness of its lobes, as well as absolute mass using the torsion scales. The resulting digital data were processed in a licensed computer program «STATISTIKA 5.5». Considered reliable differences with significance level $p<0.05$.

Results. It was found that in the 6^{th} group length of the right lobe of the thyroid gland was more data of 4^{th} group rats on 3^{rd} day of readaptation period at 6.27%, the width of the right lobe – on 3^{rd}, 15^{th} and 24^{th} days at 9.29%, 6.54% and 7.63%, the width of the left lobe and thickness of the right lobe – from 10^{th} to 15^{th} days at 6.03%, 7.26% and at 12.98%, 11.51%, and the thickness of the left lobe – from 3^{rd} to 10^{th} days at 6.38%, 9.81%.

The length of the right lobe of thyroid gland in 7^{th} group was greater than the values of 5^{th} group animals on the 15^{th} day of the readaptation period at 9.06%, the length of the left lobe - on 24^{th} day at 6.65%, the width of the right lobe – from 10^{th} to 24^{th} days at 11.05%, 6.72% and 10.09%, the thickness of the right lobe – from 10^{th} to 15^{th} days at 9.46%, 9.16%, and thickness of the left lobe – on 10^{th} day at 7.17%.

Conclusion. The daily for 60-day intragastric administration of sodium benzoate at dosages of 500 and 1000 mg/kg body weight and intramuscular application of 5% solution of mexidol for 50 mg/kg body weight in the readaptation period followed by smoothing the changes of organometric parameters of mature rats' thyroid gland. By increasing the administered dose of sodium benzoate to 1000 mg/kg, severity and duration of the corrective influence administration of mexidol decreases.

Key words: rat, thyroid gland, sodium benzoate, organometry.

UDC: 619:576.8.078:616-025

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Determination of suitability of agar-agar for preparing nutrient medium apm-vintub

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Introduction. Diseases of tuberculosis in recent years one of the dramatic pages of human history. According to the who, if measures of TB will not become effective, you can expect that the mortality rate from this disease amount to approximately 30 mln. people.

Since 1990 the tipping point occurred in epìdemìčnìj situations, instead of annual reduction in the incidence, started its growth, and in 1995 the situation has acquired epidemic character and Ukraine from this time included in the number of countries covered by the epidemic of tuberculosis

Materials and methods

Control served the test culture of microorganisms: Tuberculosis tuberculosis N37 RV-the causative agent of tuberculosis m. Tuberculosis people-the causative agent of tuberculosis in cattle. As the accompanying microflora the microflora of used test culture of e. Coli (k-12), b. subtilis, s. epidermitidis (1225). For checking foster took Levenštejna-Jensen's. Prepared by controlling seeds before plating was treated with antiseptic with-ìnkubuvannâm at 37 ± 1 ° c for 22-24 hours and visìvali on the nutrient environment.

Research of the proposed Environment took place in the following sequence: dosage of nutritional bases, its dissolution in distilled water, boiling, cooling, and the measurement of electrical resistance.

Conclusions

1. Derived indices of electric resistance agar agar within 1,2-2,5 Mohm * cm and the growth of Mycobacteria in the proposed environment allow you to determine the suitability of agar-agar for preparing nutrient APM-VÌNTUB for accelerated selection agent of tuberculosis.

2. for expedited diagnosis of tuberculosis is recommended to use nutritious environment APS-VÌNTUB, which is easy to prepare and use and provides effective detection of the causative agent of tuberculosis.

Results of research rich environment APS-VÌNTUB outline the prospect of creating a new method of diagnosis of tuberculosis and shorten the bacteriological study.

Key words: agar-agar, tuberculosis, nutrient media, conductivity.

UDC: 616.37-002.085 + 615.25

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Introduction. Syndrome intraabdominal hypertension (SIH), english literature known as Abdominal Compartment Syndrome is a syndrome that develops as a result of increased pressure in the abdominal cavity and is characterized by the following razvitie multiple organ failure (PON). But intraabdominal hypertension (NCI) should be considered separately, because it does not always lead to the development of PONT. However, despite the fact that intestinal circulation suffers first, SAG diagnosed mainly on the basis of availability MON.

Materials and methods. The experiments were conducted on rabbits of the chinchilla breed of both sexes, taking into account all requirements of bioethics. To ensure standardization levels YAG that was investigated was applied modeling using our special stand. This stand is a wooden box with a shelf, which can be set on a variable height. On this shelf set a glass bowl with water, tinted for ease of observation of the green diamond. On the back of the box set the measuring range and the vertical rigid polyurethane tube for level measurement of NCI in millimeters of water column. The glass tube through the valve and tee are connected with polyurethane measuring tube and elastic poliolefinowe container from the drip volume of 100 ml of This container in an empty state along with measuring electrodes under cetaminophen anesthesia is installed into the abdominal cavity of the rabbit. Tube container and wire electrodes are led out, the wound is sutured around them. In order to reduce impact on the circulation further check is carried out after termination of anesthesia.

Conclusions

1.Under act of all designed levels of intraabdominal gipertenzii there is deceleration

of local intestinal blood stream, oppression of dilyatatornoy and, yet more, konstriktornoy reactivity of vessels and decline of tension of oxygen, in fabrics.

2. Speed of foregoing changes has certain phases correlations of which testify to development of zvorotnego of ischemic damage of fabrics during 1 – 2 degrees of intraabdominal gipertenzii and development prognostichno of unfavorable changes in relation to a subsequent survival an intestine at 3-4 degrees.

3. Tiotriazolin improves perfuziyu of fabrics mainly on a background 1 – 2 degrees of intraabdominal gipertenzii, and also zmeshue hypoxia and proceeds in konstriktoru reactivity of vessels at all investigational levels of intraabdominal gipertenzii.

UDC: 612.766.1:796.015.58

Lezhneva E.V.

CCCharacterics of tiredness during static loads at a given level of maximum voluntary force

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Summary. In the article is considered the problem of static physical capacity for work and the mechanisms of central and peripheral fatigue during global static loads at a given level of maximum voluntary force. In the article is proposed the averaged formula for calculating the assessment of the proposed time for maintaining the constant static force at a given level of maximum voluntary force at the local, regional and global loads.

Key words: Maximum voluntary force, static load, capacity for work.

Clinical Articles

UDC: (616.1/.3+616.8)-[053.36-02:616-053.31-056.57]-07

Vlasenko D.Y.

Role of innate immunity in the pathogenesis of neurosensory outcomes in very preterm infants

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Introduction. Pathophysiology of pregnancy is multifactorial, however, the inflammatory response of the placental tissue to infection plays a crucial Treherne role in more than 90% of premature births that occur before 28 weeks of pregnancy. Innate immune responses are imperfect in newborns, especially premature infants. In animal experiments it was shown that newborns mainly use the system of innate immunity to protect against any threat. Few studies devoted to the characterization of the immune response is extremely preterm neonates to infection/inflammation, and they demonstrate that these children decreased the level of T-helper cells, interferon antigen-prezentuja cells, imperfect function of neutrophils, quantitative and qualitative immature dendritic cells, the decrease in plasma concentrations of complement components, delay and decrease the production of antibodies by b-lymphocytes, as well as a unique reaction.

Materials and methods

The study involved 45 deep preterm infants with birth weight < 1250 g (550-1230 g) and gestational age ≤ 28 weeks (23-28 weeks) who were hospitalized in Vinnytsia regional neonatal center and city hospital “mother and child Center” in 2009-2013. 12 of them died in the neonatal period, they constituted the study group. The rest of the children who survived and were discharged from the hospital, subject to in-depth clinical observation to achieve a corrected age of 18 months at least. Follow-up monitoring was conducted in the conditions of the study to the follow-up of the consultative polyclinic Vinnytsia oblast children's hospital of defining the parameters of physical development, psycho-neurological status and morbidity. Assessment of psychomotor and socioemotional development was carried out using scales of early development Mullen (MSEL), modified updated questionnaire for screening for autism in toddlers (M-CHAT-R/F) and questionnaire child behavior (CBCL 1½-5). Objective evaluation of sensory reactions include ophthalmoscopy, definition otoacoustic issue of distortion product and registration korotkorezannyh auditory

evoked potentials.

Conclusions

1. The formation of the system of innate immunity in deep preterm infants is accompanied by increased activity of immuno-inflammatory process: toll-like raptors type 2 and interleukin-6. Early markers of adverse consequences (death in the neonatal period or nvalue pathology at the corrected age of 18 months) is the content of TLR2 in the first week of life, which is 8-10 times greater than those in children with favorable prognosis.

2. In post-conceptual age 35-36 weeks predictor of unfavorable prognosis is IL6, which remains high in children with chronic nvalue pathology and significantly reduced (by 70%) in children with favorable development.

Key words: very premature infants, long-term outcomes, Toll-like receptors, interleukin-6, disability, death**.**

UDC: 618.14-006.36-06:616.151.5

Zaporozhchenko M. B.

State of system of turning of blood at women of reproductive age with leyomyoma a uterus proliferativ type

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Introduction

Frequency leyomyoma a uterus varies from 10 to 77 % in different age-grades. There is a high degree of hereditary propensity to disease. Growth factors play an important role in processes neoangiogenesis. Studying of the questions bound to a state of coagulated system of blood has important practical value, proceeding from clinical signs of flow leyomyoma a uterus proliferativ type. Definition of expressiveness system vascular and coagulative infringements at leyomyoma a uterus proliferativ type can become bedrock of individual preventive measures.

The purpose

The work purpose is research of factors of system of a hemostasis at women of

reproductive age with leyomyoma a uterus proliferativ and their role in development of gynecologic complications.

Materials and methods

300 women of reproductive age in interrelation with presence leyomyoma a uterus are surveyed. Are investigated vascular-trombocitic and plasma-coagulative links of system of a hemostasis under definition practical standards.

Results

Quantity of thrombocytes proves to be true decrease in 1,5 time, fibrinogen level in 1,9 times, agregatation activity of thrombocytes in 2,0 times, strengthening of molecular markers thrombophylia in 1,01 times and are displayed clinically by parent bleedings, infringement monthlies functions in 52,9 % and 11,8 % cases at women with leyomyoma a uterus proliferativ type.

Conclusion

The received results specify that at women of reproductive age with leyomyoma a uterus proliferativ type in aggregate with other morbid conditions balance between major factors of coagulating system of blood (thrombocytic, plasmic, vascular) is broken. There is a fibrinogen degradation.

Indexes of vascular-trombocitic and plasma-coagulative links of the system of hemostasis are characterised of the signs of hypocoagulation.

Components coagulation blood systems can be considered as laboratory markers of proliferativ process at leyomyoma a uterus. Definition of expressiveness systemic vascular and coagulative infringements at leyomyoma a uterus proliferativ type is the establishment for individual preventive actions.

Key words: hemostasis system, leyomyoma a uterus, proliferativ type.

UDC: 616.895.87

Marunkevych Ya.Yu.

Features of functional diagnosis in patients with schizophrenia with concomitant somatic pathology

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Introduction.

Functional diagnosis of schizophrenia as an indicator of an individual system integration biopsychosocial characteristics of the patient has great theoretical and practical significance for the evaluation of the features of the schizophrenic process in the context of pathodynamic, psychological and social components. In the present study, our purpose was to investigate the particular components of functional diagnosis that is crucial for social and professional adaptation of individual, namely internal picture of disease, a type of adaptive behavior and adaptive resources of the individual, in patients suffering from schizophrenia with different variants of somatic comorbidity.

Materials and methods

Functional diagnosis was formulated according to the guidelines proposed by V.A. Abramov, S.A. Putsayem and I.I Kutko (1990) during discharge of the patient from the hospital, and took into account the features of schizophrenia in this patient during the entire period of the disease.

Statistical analysis of the data was carried out using nonparametric Xi-square test of Pearson.

Results

In the study of functional diagnoses 325 male with paranoid schizophrenia with different types of comorbid somatic disorders were significant differences. In the structure of the internal picture of disease in patients without comorbid somatic disorders were more prevalent anozognosical and indifferent types (62.9 % and 14.3 %), and in patients with comorbid somatic disorders - hypochondriac and anxious types of the internal picture of disease (50.9% and 23,6%, and 50.9% and 20.9% respectively). In the structure of types of adaptive behavior in patients without comorbid pathology characterized by the predominance of regressive, conflict and maladaptive types (58.1%, 7.6% and 14.3%), and in patients with somatic

comorbidity - disorganized and aggravation type (25.5% and 7.3%, and 24.5% and 10.9% respectively).

Conclusion.

In the structure of the internal picture of disease in patients without comorbid somatic disorders were more prevalent anozognosical and indifferent types and in patients with comorbid somatic disorders - hypochondriac and anxious types of the internal picture of disease. In the structure of types of adaptive behavior in patients without comorbid pathology characterized by the predominance of regressive, conflict and maladaptive types and in patients with somatic comorbidity - disorganized and aggravation type.

Comorbid somatic pathology lightly reduces the level of adaptive resources of individual and increases the proportion of inverse level of resources, but this effect is not significant and should be considered in the context of the overall impact of mental and somatic pathology on the mental state of the individual.

Features that have been identified should be considered in developing of treatment and rehabilitation of schizophrenia.

Key words: schizophrenia, functional diagnosis, comorbid somatic disorders.

UDC: 616.988-053.2

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Features rotaviral infection at early age children

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Summary. There are results of the examination of the 120 early-age children with rotaviral infection who where on the stationary treatment in the infection box-diagnostic department of Vinnitsa regional clinical children hospital. Identification of the virus was made with usage of high sensitive, quick (10 min) and simple cito-test immunochromatographic analysis. Rotaviral infection at early age children mainly has severe degree of the clinical course. The leading symptomocomplex consists of the intoxication, hemodynamic and gastrointestinal disorders, catarrhal effects,

dehydration of different degrees.

Key words: children, rotaviral infection, clinical course, diagnostics.

UDC: 616.155.392.2.-053.2

Histiocytic syndrome in children

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Introduction

Currently Ukraine has accumulated extensive clinical material, which indicates progress in the treatment of histiocytosis in children. Histiocytosis is a group of diseases, rare and diverse in its course, which combined proliferative processes monocyte-macrophage system (Schmid I., Reiter K., Schuster F. et al., 2002). Mononuclear phagocytic system is one of the main components of the immune system , which function are presentation of the antigenes and cell toxic depression. Uncontrolled activation of macrophages leads to unregulated blood cell phagocytosis (EN Hunters, Mellyna KV, 2008). One option is the development of atypical responses histiocytic proliferative syndrome, reactive and neoplastic nature histyocytosis of Langerhans cells (GCR) is now generally accepted term for pathological conditions that are characterized by the presence of cells with the phenotype of CD207 + or granules Birbeka in dendrytic cells. We discuss the nature of the tumor and immunopathological disease.

Limphohistiocytic activation and hemophahocitosis - a common pathophysiologic mechanism hemphahocytic syndrome and sepsis (Riedemann NC, Guo RF, Ward PA, 2003). Red blood cells and their nuclear predecessors - the main goal of hemophahocytic activity of macrophages (erythrophahocytosis). Association of hemophahocytosis with increasing expression of haeme oxygenase-(HO-1) may indicate a new role of surface antigen as a negative regulator of inflammation. Infiltration of the bone marrow SD163 + macrophages within the reticuloendothelial system in patients with HLH is associated with a high content of plasma ferritin and

soluble complex SD163/SD2. Complement pathogenetic concept of genetic research data. The purpose of this work is to determine the clinical and epidemiological features of histiocytosis in children.

Materials and methods

For the purpose of the work conducted a retrospective analysis of 9 case histories of children with histiocytosis, aged 1 up to 17 years, were hospitalized in the hematology department of Vinnitsya Regional Pediatric Hospital in the period from 2009-2013. Laboratory and instrumental investigations consisted in performing general clinical research by established standard methods. All the children were analyzed clinical data, and data analysis of blood serum studies using techniques Vyisson et al.1999, myelogramm, bone marrow biopsy.

These studies analyzed in accordance with recommendations for statistical analysis of the results of medical and biological research, using the computer program Statistica 6.0.

Results

Determining the gender and age characteristics of histiocytosis in children, according to our research showed that most sick boys (66,6±5,6%) aged 1 to 7 years (50,0±4,9%).

Given the results of the study of child histiocytic syndrome, the group of children that far outstrips - 7 children (77,8±5,1%) with histiocytosis with Langerhans cells, and in 4 (57,1±4,8%) diagnosed with local form primarily involving the flat bones of the skull, 2 (28,6±1,7%) children - of multiple (simultaneous destruction of the pelvic bone, liver, spleen, bone marrow) and 1 (14,3±1,1%) children - Multifocal (impression of the skull bones, pelvis, femur). According to our observations, 2 (22,2±1,9%) girls of early age were observed hospital hemophagocytic limphistiositosis associated with herpes virus infection.

Children with clinical manifestations of histiocytosis Langerhans cells, there were low-grade fever, the fire seems flat bones in 6 (85,7±5,6%) and tubular in 1 (14,2±1,9%) patients. In 2 (22,2±1,9%) young girls with the clinic hemophahocytic limphohistiocytosis (associated with herpes virus infection) febrile temperature

observed long-term (up to 5 months). A significant increase in the size of liver and spleen, lymph nodes, signs of hemorrhagic and anemic syndrome. Blood analysis revealed pancytopenia. In determining the biochemical parameters were observed hypercholesterolemia (8,2± 4,4%), hypertriglyceridemia (11,8± 5,3%), increase of lipoproteins of very low density, ferritin (332,0 ± 1,2 mmol/l), in myelogram - an increased percentage of macrophages and histiocytes with evidence of phagocytosis. In serological study found PCR to EBV infection and herpes type 6.

Conclusion

1. Determining the gender and age characteristics histiocytosis in children found that boys are more likely to get sick (66,6±5,6%) aged from 1 to 7 (50,0±4,9%).

2. In the morbidity structure of the morphological characteristics of prevailing forms of child histiocytosis associated with the pathology of dendritic cells (Langerhans cells histiocytosis with) - 7 children (77,8±5,1%) and 2 children (22,2±1,1%) were observed histiocytic syndrome associated with pathology of macrophages (hemophahocytic limphohistiocytosis associated with herpes infection).

3. Children with Langerhans cells histiocytosis (57,1±4,8%) were diagnosed with a form of local primary lesion flat bones of the skull, 2 (28,6±1,7%) - of multiple (simultaneous destruction of the pelvic bone liver, spleen, bone marrow) and 1 (14,3±1,1%) children - multifocal (impression of the skull bones, pelvis, femur).

4. Clinical picture of hemophahocytic limphohistiocytosis associated with herpes infection, hepatic dysfunction included increased levels of ferritin (332,0±1,2 mmol/l), transaminases, triglycerides (11,8±5,3%), coagulopathy with hypofibrynohenemia (1,4±1,2 g/l).

Key words: histiocytosis, children.

UDC: 617.559 – 009.76:616 - 08

Peculiarities of gait disorders in patients with lumbar exacerbation of pain syndrome

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Background. Back pain is animportan the alth problem with serious societal and economical implications. The majority of people who experience an episode of low back pain will improve over time. However a sizeable proportion experience repeated episodes or recurrences, and some report continuous symptoms for many years. Reduced quality of life is common in low back pain patients and the aim of treatment is to improve the quality of life.

Purpose. The aim of the study was to determine subjective assessments of severity of pain by patients themselves, itseffecton psychological health and quality of life assessment of patients with acute exacerbation of low back pain during treatment in hospital.

Materials and methods. The study involved 230 patients with exacerbation of low back pain (95 men, 135 women). The average age of patients was 44,59 ± 12,99 years. A clinical neurological examination with assessment of pain intensitywas carried out on Visual Analog Pain Scale (VAS). Measure expression of depressive disorders was assessed by Beck Depression scale (BeckDepressionInventory), the quality of life of patients – with the help of The MOS 36-item Short Form Health Survey (SF-36) and scale EQ-5D. Statistical data processing was performed in the statistical package SPSS20 (© SPSS Inc.).

Results. The presence of significant differences between the patients with acute exacerbation of low back pain and the control group of healthy individuals (n = 73) was foundon account of quality of life for all parameters scale SF- 36 ($p < 0.001$). It was foundthat reduced quality of life in patients with exacerbation low back pain is achieved both through physical health indicators (23,88 ± 1,68% to 49,98 ± 5,57% in the control group) and social functioning and vitality (21,49 ± 1,59 % vs. 48,27 ± 8,50%) ($p< 0.001$). We found a clear pattern to the deterioration of quality of life assessment (SF- 36 questionnaire) because of increment intensity of pain by VAS. The intensity of pain most influence on quality of life associated with physical functioning. 171 (74.3%) patients had depressive disorders. Depression was more

pronounced in patients with severe pain syndrome (VAS ≥ 60 mm). Depressive disorders negatively affect both physical and psychological components of quality of life for patients with acute exacerbation of low back pain during treatment in hospital. The average health assessment by visual analogue scale EQ-5D in patients studied amounted 56,66 ± 16,55 points. Ratings for items that reflect the influence of pain and restriction of activities of daily living on health proved to be the lowest, while the effect of anxiety and depression, as well as the ability to self-assessed by patients was found to be less pronounced.

Conclusion. The analysis of quality of life of patients with acute exacerbation of low back pain indicates it is needed not only to assess the intensity of pain, but also to determine emotional status of patients during the treatment in hospitals to improve the quality of life of patients in this category.

Key words:vertebrogenic pain syndromes, depression, quality of life.

UDC: 616. 317 - 002 – 08-053.3: 616 – 084

Evaluation of the functional activity of minor salivary glands in the lower lip mucosa of healthy children and patients with atopic cheilitis at different age periods

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Introduction. Minor salivary glands are specific "barrier" structures of the oral cavity, as they play an important role in the formation of local humoral immunity. They also play an important role in the development of inflammatory processes of the oral mucosa. In our opinion, the change of the secretory activity of minor salivary glands may influence significantly on the nature and peculiarities of the atopic cheilitis, the development of which is related to immunological mechanisms.

The research objective: to study the peculiarities of the functional activity of minor salivary glands in the lower lip mucosa of healthy children and patients with atopic

cheilitis at different age periods.

Materials and methods of the research. There were examined 61 children of different age periods with atopic cheilitis and 65 healthy children of similar age groups who comprised the control group.

The functional activity of the minor salivary glands was examined by the method of Yakovleva V.I. (1980), by which the filter paper with certain weight weights before and after the research. The average amount of the functioning minor salivary glands was determined on the lower lip mucosa area of 1 cm^2 (by the author's method – 4 cm^2) due to the smaller size of the vestibulum oris and lower lip mucosa in children compared with adults.

Results and discussion. There was examined the decrease in the number of the functioning minor salivary glands and the increase of their secretory activity with aging in healthy children of the control group. The statistically significant decrease of minor salivary glands was revealed in children with atopic cheilitis of all age groups in comparison with healthy children of the control group. The sharp decrease was found in 85.2 % of children with atopic cheilitis and the significant increase of the secretory activity of minor salivary glands was found in 14.8% of them compared with analogical results of the control group. The increase of the secretory activity of minor salivary glands was observed in children with severe course of atopic cheilitis.

Conclusions. Recieved results are the confirmation of the relationship between the functional state of minor salivary glands in the lower lip and the extent of prolabium involvement in the pathological process.

Key words: atopic cheilitis, minor salivary glands, functional activity, children at different age periods.

UDC: 616 – 005.151 - 053:611.018.74: 616 – 008.6:615.03

Estimation of the clinical peculiarities of the shenlen-henoch in children with different form and activity of the disease

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Summary. We checked 123 children with SHP in the age of 1 up to 18 years with estimated clinical forms and degrees of activity of the disease. We found that the increasing of the activity of the disease was associated with severe clinical form of the SHP. We as well estimated that activity of the disease was correlated with laboratory markers of immune-inflammatory activity, such as ESR, CRP, CIC. VEGF, NO, ANCA.
Key words: purple Shenlen-Henoch, clinical peculiarities, children.

UDC: 616.36.008.5-053.31

Neonatal biliousness in family physician's practice

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In the structure of sickness rate of neonatal age a distinguished place occupy neonatal biliousness. A number of children that were hospitalized at the age of 21-30 days is not less than a number of children that were taken from maternity hospitals with symptoms of "dangerous biliousness" .

Objectives. To determine adverse factors of run of neonatal biliousness on the ground of careful analysis of life and disease history data and objective and follow-up laboratory and instrumental examination.

Materials and methods. 96 newborns at the age of 21-32 days were taken into the main observation group. Entry criteria were the follows: period of gestation of 35-40 weeks, absence of birth defect, hereditary diseases, a level of total bilirubin more than 200 mcmol/l, determined in accordance with Jendrassik method. A complex of diagnostic and remedial measures in accordance with clinical protocol No. 255 of 27.04.2006 were performed. Besides, phagocytic activity of neutrophils and phagocytic number were examined, neurosonography data and ultrasonic scanning of

thymus gland were analysed.

Results. Discussion. After discharging from the maternity hospital while being at home newborns at the age of 1,5-2,5 weeks the important factors turned to be the following clinical determinants: infant's breast-feeding on demand without performing of control feeding or weekly monitoring of dynamics of body mass (100%), absence of control of quantitative and quality changes of defecation (92,7%) and urination (35,4%), functional gastrointestinal disorders (81,3%), calm child (46,9%), hyper-esthesia, shuddering during crying (10,4%). Neonatal period against neonatal biliousness has phagocytic failure as well as deviation of biochemical constants that determines formation of immune response mechanism. During ultrasonic scanning of brain there have been found out the signs of failure of echo-density in the areas of periventricular along with holding a shape and a form of liquor space sizes, depleted picture of gyri and fissures of newborns (7,3%).

Conclusions and Prospects for the Further Development

1. Estimation of breast-feeding and dynamics of body mass make it possible to prevent the development of protein-calorie deficiency of newborns during the outpatient period of observation.
2. Control of kind and frequency of dejection prevents occurrence of neglected cases of newborn underfeeding and make it possible to influence efficiently on dynamics of reduction of bilirubinemia level.
3. Tuning of water schedule and feeding schedule, correction of neurological status in time make it possible to regulate the bilirubinemia level close to physiological limits.
4. Significant factors that went along with long-lasting biliousness were factors of perinatal anamnesis: long-lasting intrauterine hypoxia, pharmacotherapy during childbearing, low estimation in accordance with Apgar score. Prospects for the Further Development is forwarded to preventing of perinatal anamnesis and searching for methods and means of correction of bilirubinemia as a complex of means of nursing and taking care after newborns considering the possible coexistent of perinatal and neonatanal pathology.

Key words: neonatal biliousness, clinical thought, a family physician.

UDC: 616.89-008.19-053.9

Smolko D.G.

Depression and somatic comorbidities in patients with chronic cerebral ischemia

Background: Depression is a major factor of desadaptation in patients with cerebrovascular pathology. It is estimated that a large proportion of elderly population suffers from depressive symptoms. Prevalence of depression in elderly population varies from 9 to 30%, clinically significant depression affects up to 15% of the elderly population. Depression in patients with chronic cerebral ischemia depends on different factors including comorbid somatic pathology.

Purpose: To determine the influence of comorbid somatic diseases onto the risk of depression and also the expectancy of a diagnosis of depression and its further adequate treatment in patients with chronic cerebral ischemia.

Materials and methods: 225 (117 males and 108 females) patients with chronic cerebral ischemia aged between 45 and 70 (mean 59,2±8,6 years; M±StD) have been investigated. Clinical and psychometric tests were performed. The diagnosis of depression was established according to ICD-10 criteria for depressive disorder. For the diagnostic evaluation the next scales were used: Center for Epidemiological Studies Depression Scale (CESD), Hamilton Depression Rating Scale (HDMD), Hospital Anxiety and Depression Scale (HADS), The Beck Depression Inventory, Montgomery–Asberg Depression Scale (MADRS). The CESD total score ≥ 21 points, HAMD ≥ 16 and HADS ≥ 11 were selected to identify patients with severe depression. Individuals with high scores on these scales, but without a diagnosis of depression at the time of review, have been attributed to respondents with undiagnosed depressive disorder.

Results: 119 (36,6%) participants reported a lifetime history of depression. Any physical comorbidity was associated with an increased risk of being diagnosed with depression (hazard ratio [HR], 1,7; 95% confidence interval [CI], 1,15-2,5) and with increased risk of diagnosed and undiagnosed depression (HR, 1,59; 95% CI, 1,14-

2,206). Participants with any physical comorbidity were more likely to report treatment for depression (odds ratio [OR], 9,21; 95% CI, 1,3-65,37). The presence of comorbid somatic diseases/conditions increases the risk of depressive disorders in patients with chronic cerebral ischemia, however, it also increases the probability of diagnosis and prescription of treatment for depression.

Conclusions: Patients with chronic cerebral ischemia and somatic comorbidities require mandatory examination for the possible presence of depressive disorder. It is possible that adequate therapy of comorbid diseases will reduce the frequency of depressive symptomatology.

Key words: chronic cerebral ischemia, depression, comorbidities.

UDC: 616.831-053.31

Diagnosis of severity rate of aspiration syndrome that newborns have with perinatal central nervous system damage

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Summary. Aspiration syndrome and its implications are very relevant topic. According to official statistics, the structure of the main causes of fetal death aspiration of amniotic fluid occupies the 5th place among maternity injuries, accounting for 0,6%. Therefore, an important task is to improve the neonatologists and clinical and radiological diagnostic methods like aspiration syndrome and its severity in infants during the first hours of life.

Key words: infants, aspiration syndrome diagnosis.

UDC: 616.367-089.28-06:616.36-002.15

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Staging surgical treatment of complicated forms of the gallstone disease in age aspect

Introduction. The development of minimally invasive technologies provided extending indications and the ability to perform surgical treatment in elderly and senile patients with complicated forms of the gallstone disease (GSD). However, selection criteria of one-stage and staging decompressive interventions aimed at correction of complicated biliary disease remains unclear. ***Purpose*** – to study the effectiveness of minimally invasive and open surgery operations in treatment of complicated forms of the GSD in elderly and senile patients.

Materials and methods. During the period from 2002 to 2014, 350 patients with complicated forms of the GSD were treated in the surgical clinic. The patients were from 60 to 90 years old. There were 107 (30,6%) males and 243 (69,4%) females. The complicated course of acute calculous cholecystitis was observed in 137 (39,1%) patients, and that of the chronic one was in 121 (34,6%) patients. Bile duct pathology was diagnosed in 92 (26,3%) patients. Among them, benign obstructive jaundice (OJ) was observed in 85 (24,3%) cases. The main methods of diagnostics of complicated forms of the GSD were: ultrasonography (USG), endoscopic retrograde pancreatocholangiography (ERPCG), intraoperative cholangiography (IOCG), magnetic resonance imaging (MRI) and fibrogastroduodenoskopy (FGDS).

Results. The USG informativity in complicated forms of GSD amounted to 235 (67,1%). In 85 (24,3%) patients, FGDS was carried out. To contrast bile ducts, ERPCG was used in 56 (16,0%) patients, and IOCG – in 36 (10,3%) patients. To diagnose choledocholithiasis, MRI was carried out in 7 (2,0%) patients. In complicated acute calculous cholecystitis minimally invasive interventions were performed in 125 (35,7%) patients, and those ones of chronic cholecystitis – in 170 (48,6%) patients. In case of OJ, surgical interventions were performed in 85 (24,3%) patients. Two-stage interventions on the bile ducts (laparoscopic cholecystectomy (LCE) with endoscopic papillosphincterotomy (EPST)) were performed in 50 (14,3%) patients, and one-stage operations (LCE with subsequent interventions in the

bile ducts) were performed in 72 (20,6%) patients. Complications following two-stage surgical operations were observed in 3 (6,0%) cases, and those ones after single stage operations were in 6 (8,4%) cases. 1 patient died.

Conclusion: 1. Two-stage surgical method in complicated forms of the GSD in elderly and senile patients is preferred.

2. Two-stage surgery operations include: LCE followed by EPST in the early postoperative period in acute calculous cholecystitis, and EPST followed by LCE in its chronic course. In patients with OJ, two-stage tactics is advisable to be complied in case of hyperbilirubinemia of more than 100 μmol/l, OJ continuance of more than 2 weeks and decompensated concomitant diseases.

3. One-stage operations (LCE with subsequent interference in the bile ducts) is advisable to perform in patients with acute cholecystitis complicated with non-indurated paravesical infiltrate and when there is no sclerotic process in the gallbladder and excessive adhesive process in chronic cholecystitis. In patients with OJ, one-stage interventions are advisable to be used when bilirubin level is below 100 μmol/l and its duration is no more than 2 weeks with compensated or subcompensated comorbidity, and when there is no cholangitis.

Key words: gallstone disease, laparoscopic and open cholecystectomy, endoscopic papillosphincterotomy.

UDC: 616.12-008.331.1-06

Excessive and insufficient weight in patients with essential hypertension. Is it known?

Hrebtiy H.I.

Summary. The study revealed changes in structural and morphological parameters of systolic-diastolic left ventricular remodeling and vascular endothelial function parameters in patients with essential hypertension and normal, high and underweight.

Key words: arterial hypertension, obesity, deficiency weight of body, structural and geometric left ventricular remodeling, systolo-dyastolic parameters, endothelial

dysfunction.

UDC: 616.13/16:612.184:575.113

The role of genes responsible for vasodilatation and lipid metabolism in the formation of blood vessels and vascular disease

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Introduction. The aim of the study was data from literature sources to identify the significance of the genes responsible for vasodilatory and lipid metabolism, for neoangiogenesis and formation of vascular pathology. One of the key factors that makes a perfect rendition of the affected organ or tissue engrafted bioengineered structures adequate angiogenesis. There are many genes involved in the regulation of processes of vascular growth, support morpho-functional capacity of endothelial protection against atherogenesis. At the same time, in terms of vascular pathology revealed a whole series of mutations and polymorphisms of genes involved in lipid metabolism, vascular tone regulation and gene system angotensin-angiotensin.

Thus, it can be considered that the study of polymorphisms of genes regulate the formation of nitric oxide and lipid metabolism are promising in the study of angiogenesis and condition of the vessels in pathological conditions.

According to modern views vascular disease is the result of a complex interaction of genetic, epigenetic factors and environmental factors. Physiological response of an organism to a specific stimulus is determined by genetic polymorphisme, most of which include tandem repetitions, substitutions/insertions/duplications of segments of DNA, and single nucleotide polymorphisms (SNP - Single Nucleotide Polymorphism). It is the SNP are the most frequently used. They arise from point mutations and may affect gene expression in all regions of the genome. A variety of genetic variation, including SNPS, can be the cause of many monogenic and multifactorial diseases.

Summary. According to modern concepts processes of neoangiogenesis and vascular disease formation is a consequence of complex interaction of genetic, epigenetic factors and environmental factors. For the formation of pathological process of the blood vessels polymorphic variants of genes that are responsible for vasodilatation, genes of lipid metabolism, inflammatory response and vascular remodeling factors are involved. The paper provided an overview of published data on the genetic component of angiogenesis and vascular disease.
Key words: genetic polymorphisms, angiogenesis, nitric oxide, growth factors, lipid metabolism.

UDC: 616 – 089.888.14:159.922 – 055.2

The defimition of psychological features of women after abortion

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Introduction. According to modern views vascular disease is the result of a complex interaction of genetic, epigenetic factors and environmental factors. From the point of view of psychiatry, women who decide to terminate a pregnancy under the influence of the situation, that is, all those women who terminated pregnancy with the so-called social indicators are in the anxiety condition. Taking into account the existence of publicly available information on the pathology of the fetus, in particular, congenital malformations incompatible with life, until prenatal screening 13-15 and 20-22 weeks, the anxiety of the majority of pregnant women increases.

The aim of this work was to evaluate the psychological status of women of childbearing age after abortion, made at different stages of pregnancy and about different pokazani.prenatal screening for 13-15 and 20-22 weeks, the anxiety of the majority of pregnant women increases.

Materials and methods. From may 2013 to April 2014 was studied 103 women who were divided into two groups. The first group (G1) included 60 women enrolled in the Department observation maternity hospital №2 with a diagnosis of Congenital disorder (CDF) of the fetus and the indication for termination of pregnancy in the

period 22-24 weeks. Termination of pregnancy in this group of patients was carried out by calling the artificial delivery. The second group (G2) consisted of 43 women who had an abortion on their own in early pregnancy (before 12 weeks). The method of abortion - medical (on the time period to 6 weeks) and surgical (for the period up to 6-12 weeks).

Diagnosis of a psychological condition of women was held on 2 - 5 days after a previous abortion and included the following methods: a questionnaire mood SAN, the method of determining the level of individual stress resistance of S. Cohen, and Villasana and use of family genogram.

Summary. The goal of this study was to evaluate the psychological state of women of childbearing age after abortion, made at different stages of pregnancy and on the various readings. There were studied 103 women, 60 of which came in the office diagnosis of “congenital malformation” fetal indication for termination of pregnancy at time of 22-24 weeks. The second group included 43 women who had an abortion on their own early in pregnancy (before 12 weeks). The results showed that women who had undergone an abortion in a much later date and, if necessary differ significantly lower levels of activity compared with women who had an abortion at up to 12 weeks, they are characterized by reduction of stress and heredity revealed malformations.

Key words: pregnancy, abortion, congenital malformation, stress, activity, heredity.

UDC: 616.61-089-007

Psychological stress and preoperative anxiety in urological patients

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Introduction. In urology the use of endovideosurgical (EVS) methods are more often, because of some advantages over open interventions not only in minimal invasiveness and faster repair of surgical wound, in short hospital stay, but in the

reduction of preoperative stress, post-operative pain, faster psychological rehabilitation of patients. Aspects of psychological comfort, well-being and the perception by the patient surgical intervention recently unfairly receded into the background, but they must be not just an important component of a successful operation, but also a necessary result of it.

Identification of serious disease that requires surgical intervention for the patient, there is always a severe psychological trauma. Psychological aspects include a wide range of personal responses and experiences dependent on the disease and the its resulting change as well as a type of operative intervention. On the one hand, surgical intervention is aimed at preservation of health and prolongation of life of the patient, on the other carries a number of negative consequences: the operating injury and anesthesia, pain syndrome, functional limitations, cosmetic defects, sometimes disability. Preoperative stress observed in each patient regardless of the type of intervention: open or low invasive surgery. Some of foreign researchers indicate that increased preoperative anxiety leads to slower postoperative recovery, the effects of depression, more intense pain and a greater number of complications compared with patients with low levels of preoperative stress.

To assess the degree of preoperative anxiety in surgery is used widely international questionnaire - Amsterdam preoperative anxiety and information scale (APAIS) and questionnaire of anesthetic and surgical preoperative anxiety (ASPA). The results obtained through the questionnaires were provided in the percent of anxiety - from 0 (no stress) to 100% (severe psychosomatic reaction). The intensity of preoperative anxiety and post-operative pain often assessed through a widely use in medicine visual analog scales (VAS), with the same range from 0% to 100%. All psychometric instruments for a long time were used in the surgical clinics and confirmed their validity and reliability.

The objective. To determine the degree of preoperative anxiety in various

Materials and methods of research. The data obtained in 326 patients with tumors, cysts of kidneys and stones of upper urinary tract treated in the urological Department of Khmelnitsky regional hospital in the period of 2009-2013 were studied. The main

group consisted of 232 patients, operated on using EVS techniques. The results were compared with the data of 94 patients from control group with the same pathology, but with open surgery. Gender and age structure and preoperative preparation of patients did not differ between groups. To assess the level of preoperative anxiety patients used the Amsterdam preoperative anxiety and information scale (APAIS), which contains 6 simple questions with answers, built on a five-point rating scale proposed by Lickert (from 1 to 5 points). The first two questions of APAIS appreciate anesthetic component of the anxiety formation, fourth and fifth - surgical, third and sixth issues point to the need for patient information. In the overall assessment formed two separate indicator: to assess the level of anxiety and needs in the preoperative information measured in percent of the maximum result. In people with high level of anxiety analysis of its components on the form of anesthetic and surgical preoperative anxiety (ASPA) and on the visual analogue scale (VAS) in the standard version was conducted. The obtained data were statistically processed using computer programs Statistica 6.0 (StatSoft).

The research results and their discussion. Surgical intervention for such diseases as kidney tumors and cysts, stones of upper third of the ureter is a serious psychological trauma to the patient. Our analysis demonstrated that preoperative stress is present in each individual, regardless of whether it is open or low invasive surgery. Factors contributing to its increase are first of all connected with the degree of information and psychological preoperative preparation, previous surgeries, duration of disease. Perception also depends on the age and sex of the patient, the level of education.

Conclusions

1. In patients with urological pathology there is a high level of preoperative anxiety which could influenced effective anesthetic support. In EVS operations patients level of anxiety was significantly lower than in the open.

2. For the quick assessment of the anxiety level visual analogue scale is the easiest to use and sufficiently informative to select group of patients who require anesthesiologist extra attention in the preoperative period.

3. The patients preoperative preparation should include information about the future

anesthesia and the course and duration of the operation.

UDC: 616 – 089.844:616.62 – 008.22:599.742.1:591.461+591.462

Lonskiy K.L., Lonskiy L.Y., Kostyuk G.Y., Korol A.P.

Pathological changes of the kidneys, ureters and bladder in dogs in experimental ureterohydronephrosis single kidney under restoration urine outflow using plastic intestinal ureter

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Summary. History of hydronephrosis in medicine - this is the era of development and practical implementation of methods urinary tract patency restoration and improvement of techniques of surgical correction, depth of study and irreversible changes in renal parenchyma. In the domestic and foreign literature are quite contradictory data hydronephrosis, no single methodological approach to the evaluation of structural and functional changes in the kidneys and urinary tract. Determining the feasibility of organ operations for hydronephrosis is difficult due to the complexity of the true state of the affected organ during obstruction. Fundamentally important factor in determining treatment strategy and prognosis is the estimation of pathological signs of kidney, ureter and bladder. The paper presents the main morphological changes of the urinary system in experimental hydronephrosis single kidney in the restoration of the flow of urine using ureteral intestinal plastics.

Key words: urinary tract, hydronephrosis, difficulties outflow of urine, glomerular dysplasia , hyalinosis , microvasculature.

UDC: 616-003.972:616.33-006.6:616.12-008.331.1

Proliferative activity of gastric epithelium in chronic atrophic gastritis

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Introduction. Increase prateria activity of DNA-synthesizing cells patching and

cervical epithelium, decrease the speed of their differentiation in the process of constant renewal of the epithelial layer in chronic atrophic gastritis (HAG) is the basis for development of quantitative imbalance between connective tissue and glandular structures of the coolant and the failure of the last. Poor coordination between the processes of proliferation and differentiation of epithelial cells with pre-cancerous changes, in particular in the case of intestinal metaplasia (KM), and proliferation and apoptosis metaplanning epithelium coolant in comparison with nematopalaemon can help in predicting the disease, the risk of malignancy.

Given the information that the development of chronic gelcoating gastritis always accompanied by the disruption of cell renewal coolant. As a marker of proliferation we have chosen the nuclear antigen Ki-67, as it is in all active phases of the cell cycle (G1, S, G2 and M), but not in the resting phase (G0). Important role in the emergence and further development of tumors are disorders of apoptosis and activation of intracellular signaling cascades. In the signaling pathways of apoptosis induction special role belongs to the protein Bcl-2. This protein, along with others (e.g., Bcl - xL, Mcl-1, etc) performs the function of protecting cells from apoptosis by inactivation of proteins proapoptotic.

Materials and methods

Surveyed 336 patients (192 (57%) males and 144 (43%) women), aimed at the endoscopy departments and offices to clarify the clinical diagnosis. The main group of patients, which were subject to dynamic observation for 6 years, went 68 with HAG with KM due to the overwhelming Association of the latter with this disease. In the comparison group were two subgroups: the first consisted of 30 patients HAG without KM, the second - to 21 people with morphologically unchanged coolant. The average age of the patients who were examined in the dynamics amounted to (52,96±1,13) years, mean duration of disease at the time of verification KM - (2,6±0,63). In the process fbroesophagogastroduodenoscopy and chromoendoscopy with 0.5% aqueous solution of methylene blue was performed multiple biopsies (2 biopsies from the body and antrum of the stomach and 1 from the angle of the stomach with regard to the requirements of the modified Sydney system and dyed

areas coolant) with subsequent histological study of biopsy specimens. Biopsy material was fixed in 10 % neutral formalin and after conventional treatment produced paraffin blocks from which sections of 5-7 μm thickness.

Conclusions

1.Chronic netropa N. pylpori-associated gastritis increases the rate of renewal of the epithelium of the coolant (the increased expression of caspase-3 and the proliferation marker Ki-67) with the extension prolferative compartment and zones of apoptosis. Eradication of the infection causes a decrease prateria activity and apoptosis of epithelial cells coolant. In atrophic same gastritis processes of apoptosis remain dominant after removal pectu, and the emergence of HKM is accompanied by activation of the reproductive processes of the epithelium.

2. At PKM, as a rule, there is a shift of the zone of proliferation to the bottom of glandular structures that housed the majority of Ki-67-positive cells. This fully corresponds to the transition of differentiation of the epithelium on the variant characteristic of the intestine with the location prolferative compartment in the crypt. In NYC (and II, and III types) to allocate prolferative area as clearly outlined on labeled cells is impossible, since Ki-67-positive epithelial cells sustris in all departments glands.

3. The expression of Ki-67 EC and EC when NYC was significantly ($p<0.05$) higher compared to the absorption atelicity when the RMB in the antrum of the stomach, between type II and type III HKM differences have been identified.After successful eradication therapy of atrophic changes in the coolant does not undergo involution and regression mononuclear inflammatory infiltrate slowed, as evidenced by the low level of caspase-3 and high Ki-67 in mononuclear cells.

4. High levels of Ki-67, a significant polymorphism TBE and TBE allow atypical “berprestasi” KM. In International Palansky classification of gastrointestinal neoplasms (dysplasia) such changes classified as borderline (uncertain option neoplasia /dysplasia).

Key words: chronic atrophic gastritis, proliferative activity, gastric epithelium.

UDC: 616.314.: 616.322-002.

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Clinical and microbiological base of the link between the course of chronic parodontitis and chronic tonsillitis

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Introduction. Periodontology is one of the most common pathologies in maxillofacial area. In mouth cavity, especially in invaded periodontal tissues there are ideal conditions for the generation of microorganisms. Identical conditions are observed in the tonsils, which have deep lacunae, which accumulate microorganisms, which are infectious factors and release toxic substances that are the cause of inflammatory periodontal diseases.

It is known that a leading role in the development of periodontal pathology belongs to local factors - the reasons for which interesting for us clinical situations are implemented, such as gingivitis, periodontitis, periodontal disease and even paratonsillitis. In this regard, much importance is given to the quality of hygiene of the mouth cavity, which affects the periodontal flora, the role of traumatic occlusion, consequences of irrational orthopedic, therapeutic treatment or orthodontic treatment.

Research objective.

On the basis of clinical, microbiological studies to learn the features of periodontal lesions under the conditions of chronic generalized periodontitis with chronic tonsillar pathology.

Materials and methods

To solve the set tasks in this work we have carried out microbiological and clinical study of 105 patients. 35 patients with chronic generalized periodontitis without tonsillar disease, 35 patients with chronic generalized periodontitis on the background of chronic tonsillar pathology, and 35 healthy persons without periodontal disease and tonsillar pathology, normal health status of which was confirmed under the conditions of general experiment. All patients were aged from 30 to 41 years. To characterize the state of periodontal tissues we have conducted researches on the basis of specially designed medical card of a dental patient.

The material for microbiological examination was content of periodontal pockets (PC). Sampling of gingival sulcus content and PC was done in the area of lower front teeth with three sterile tampons and then every tampon was put into sterile tubes and within 2 hours the material was brought to the center of laboratory bacteriological researches.

Research results and discussion

When determining the parameters of periodontal status and mouth cavity hygiene it was established that the patients of the basic group showed more complaints about tooth sensitivity (75%), bad breath (85%), bad taste in the mouth (45%) and bleeding gums (90 %), food impaction (75), while the patients from comparison group showed complaints of tooth sensitivity (55%), bad breath (75%), bad taste (15%), bleeding gums (65%) and food impaction (60%).

According to the results of bacteriological studies, in the examined patients we observed significant changes of microbiocenosis in periodontal pockets in the form of increased number and variety of opportunistic and pathogenic microflora. Opportunistic microflora in patients was represented mainly by Candida albicans, Esherichia coli, Klebsiella pneumoniae, Proteus mirabilis Proteus vulgaris, and Pseudomonas aeruginosa, which were not found in patients in the control group.

Conclusions

In the course of this research it was found out that dental status in patients with GP against the background of chronic tonsillitis is much worse than in patients with GP without chronic tonsillar pathology.

Based on the conducted research we can say that the feature of periodontal lesions in patients with generalized periodontitis against the background of chronic tonsillar pathology is that the presence of chronic infectious- inflammatory source in the tonsils enhances biocenosis of periodontal pockets, provokes reorganization of biological characteristics of periodontal infection, which in its turn leads to dysbiotic reactions and deeper periodontal lesions with an existing pathological process.

Key words: chronic periodontitis, chronic tonsillitis, hygiene of mouth cavity, periodontium.

UDC: 616.72 – 002 – 053.2

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Quality of life in patients with juvenile rheumatoid arthritis (according to chaq and sf-36 questioniaries)

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Juvenile rheumatoid arthritis (JRA) – is the most common and severe rheumatic disease of the childhood about full recovery for a great pity we even can't talk. Pain – is a leading syndrome and clinical feature of the JRA, and the first reason of coming for the medical help. Nociceptive innervations of the joints is provided with A- and C-afferents sensitivity of them increases in case of inflammation that is the first and real reason of the pain. Chronicle myofascial pain that supervises 90% of all patients with JRA is observed scientists like an independent disease that followed up with different psychical disorders as well behavior reactions and decreasing of the social activity. Quality of life is estimated by the severity and intensiveness of the pain, as well as functional abilities and degree of the social adaptation.

So, the aim of our study was to estimate quality of life and functional abilities if patients with JRA.

Under our control were 72 children with JRA that passed dyspanser observance and treatment in Vinnitsya regional clinical children's hospital. At the group of the study were 47 (65,27±4,78%) girls and 25 (34,72±4,78%) boys, duration of the disease was 24,9 (11; 43,7) months. At the group of the study in prevalent was joint variant of the disease (90,28±3,04%), systemic form was observed in – 7 (9,72±2,95%) children.

The severity of the functional insufficiency was checked with HAQ (Health Assessment Questionnaire), adopted for the children according to the recommendations of the American rheumatologists association (ARA). Examination with CHAQ was passed with a parents help. Questionnaire SF-36, that patients filled by themselves we used at the patients over 12 years of age, that is why the number of the patients with JRA was – 45 (mediana of the age - 13,8 (12,1;16,7) years). Control

group was presented by 30 almost healthy children. In group of the children with JRA we passed algometric examination with visual analog scores that checked 3 main criteria: severity of pain, general feeling in mood of the patient and doctors one on 10 points scale. Results of the patients with JRA were more than received in control group. So, the pain index in children with JRA was 7,4 (5,1; 9,6) and in 8 times was over the result in healthy children (0,9 (0,4; 1,3).

During the study patients together with their parents checked functional ability according to CHAQ. So, children with JRA result of the questionnaire was 1,14±0,35, that presents moderate lowering of the functional abilities in patients and indicates help during the minimal physical activity. Analyze of the separate parts of the score indicated that the most suffered part in children are – hygienic abilities (46,62±4,12 %), feeding (33,64±3,91 %), and walking and moving games (30,16±3,82 %), that significantly influence their psychological condition and decrease social adaptation, integration to the healthy children society.

According to SF-36 score all children with JRA had decreased signs of the physical abilities and activities, pain, estimation of the general mood and feeling of the quality of life in compare with results of the healthy children. Girls had significantly worse date, except pain feelings, emotional and mental condition that were the same like in boys. The average results of the score in patients with JRA were on 36% lower than in group of the healthy children.

So, it's very important to follow up studies devoted to estimation of the quality of life, social adaptation, integration to the social groups of the healthy children cause they can give ability to check the current condition of the children, as well as dynamic changes at the background of the treatment.

UDC: 616.45.80 – 02:64

Effectiveness of physical rehabilitation in metabolic syndrome

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Summary. The scope of this work lied in studying effectiveness of physical

rehabilitation in metabolic syndrome. Based on clinical and instrumental investigations two types of metabolic syndrome were identified: with and without abdominal obesity.

Differentiated physical rehabilitation complexes and prophylaxis, comprisingdiet therapy, therapeutic exercises, radon bathes, pneumopressing, ozone therapy, magnetic laser ultrasound treatment, segment massage for this category of patients are suggested and their effectiveness is evaluated.

Key words: metabolic syndrome, physical rehabilitation, risk factors, prophylaxis.

UDC: 616.314.13:616.314 – 008.8

Acid resistance, focal demineralization and remineralization speed dynamic parameters of tooth enamel in patients with different dental plaque types

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Summary. Were measured the dynamics of the acid resistance, focal demineralization and remineralization speed of tooth enamel after professional oral hygiene and health care in 540 patients with various types of dental plaque: 180 - with soft plaque, 180 – with calculus, 180 - with smokers plaque. Reliable changes in TER test and clinical evaluation of enamel remineralization rate test in patients of the main group was indicative of improving the structural and functional properties of tooth enamel and recovery mechanisms supersaturation of saliva mineral components that contribute to the process of mineralization and remineralization of dental hard tissues and damage of the caries process.

Key words: dental plaque, professional oral hygiene, enamel acid resistance, remineralization properties.

UDC: 616.36-002-053.2:616.155

Features of chronic hepatitis in children with hematologic malignancies

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Summary. 80 children with chronic hepatitis were observe 55 (68,75%) children (group 1) had hematologic malignancies (CPT) and 25 (31,25%) patients (group 2) without accompanying CPT. Standard survey were clinical review, abdominal ultrasound, biological studies for the determination of bilirubin and its fractions, activity ALT, AST, LDH, alkaline phosphatase and proteins. Reasons for the high incidence of infection in patients with CPT is a high frequency of parenteral interventions and frequent transfusions of blood components, drug liver. Chronic hepatitis C in children with CPT develops as a primary - a chronic, with frequent exacerbations and remissions in the suppression of cell-mediated immunity. The main manifestations of chronic hepatitis in patients with CPT have hepatomegaly, jaundice, splenomegaly, high biochemical activity, and in patients without CPT - hepatomegaly and dyspeptic syndrome, minimum or normal biochemical activity. Patients with high levels of CPT observed AST, ALT, while in patients without CPT - high levels of alkaline phosphatase protein that.

Key words: children, chronic hepatitis, oncohematological diseases.

Methodical Articles

UDC: 159.9.018.4:616.89 - 008.442.6 – 057.875

Program of psychotherapy and psychoprophylaxis of maladaptive psychological conditions of students with high level of perfectionism

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Introduction. Perfectionism is a widely discussed issue, which has recently been extensively studied both in Ukraine and abroad. Perfectionism (from lat. perfectum - perfect) - the belief that the improvement of both own and other people, is the goal to which man should aspire. This extremely high level of motivation, the desire of all to

achieve a perfect result, perfection Ashby (2004). The influence of the phenomenon of perfectionism on the person and on all spheres of its activities is undeniable. But despite studies of perfectionism, there is no common view on the assessment of its terms of positive or negative influence on the person Perfectionism leads to self-development, review of existential needs, the desire to achieve the best results from their own labor, but on the other hand indicates the inability to prioritize, fear of criticism and the need for approval, polarized thinking, indecision and self-doubt. When the prevalence in the structure of this phenomenon of negative aspects of personality with a high level of perfectionism is in a constant state of internal conflict, which leads to the emergence of States against non-adaptable. The aim of the conducted research was to study the phenomenon of perfectionism in students in the context of the formation against non-adaptable conditions and subsequent development, scientific rationale, implementation and evaluation of the programme psychotherapy and psychological prevention against non-adaptable conditions of students with perfectionism.

Materials and methods. The training program was designed for 10 lessons (20 hours). In psycho the program was attended by 60 students with high levels of perfectionism (a measure of perfectionism above 65 points on perfectionism Questionnaire A. B. holmogorova, N. G. Garanyan) (group psychotherapy). Among them were 35 students of 1 course (with 58.33%) and 25 students of the 5th course (41,67%). Among students of 1 course 11 people (31,42%) studied at the medical faculty (LF), 12 were from the faculty of dentistry (SF) and medical psychology faculty (FPM) (34,29%). Among the students of the 5th course was 8 people with LF (32,00%), 6 students from SF (24,00%), 11 students FPM (44,00%). To assess the efficiency of the developed and implemented psycho-program students VNS with high levels of perfectionism were used psychometric evaluation of the scale: perfectionism Questionnaire A. B. holmogorova, N. G. Garanyan, "Differential test perfectionism" A. A. Zolotareva depression Scale Beck, the anxiety Scale Beck.

Conclusions

Thus, as a result of psycho-correction program students VNS with a high level of

perfectionism positive dynamics:

1. Significantly decreased the rate and level of perfectionism.

2. Held optimization ratios adaptive and against non-adaptable perfectionism due to the significant increase of indicators of adaptive perfectionism and significant reduction of performance against non-adaptable perfectionism.

3. Significantly decreased levels against non-adaptable such conditions as anxiety and depression.

Key words: perfectionism, correction, psychoprophylaxis.

UDC: 616-071.3:611.97:099(617(092))

On the issue of measuring the acetabulum orientation of material to the Museum Department of Human Anatomy VNMU name M.I. Pirogov

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Introduction. In the present study, in the orthopedic literature, including instructions in Ukraine Companies manufactures and sells prosthesis hip and related accessories are usually part of the acetabular inclination standards prosthesis - 45 º, and torsion - 20 º

Ratios of these angles based on the works of foreign anatomists and biomechanical measurements made on the pelvic bones. Similar anatomical studies of domestic authors we have found.

Our purpose was to make measurements of the orientation of the acetabulum (angles and torsion) in dry pelvis, define standards Ukrainian population for planning surgical operations on the hip joint.

Materials and methods

We measured the angles and torsion acetabulum 114 dry adult pelvic bones, and 14 individual bones adolescence. About adolescence, we tried to preserve the remaining cartilage and have incomplete axis lips acetabulum.

Acetabular inclination angle is measured between the plane of the entrance to her and sagittal plane. In the practice of orthopedic trauma, this angle is easily measured on radiographs of the pelvis back. Torsion angle is measured between the plane of the entrance of the acetabulum and the horizontal in the frontal plane.

The sagittal plane relative to which the tilt angle is measured to the acetabulum, it is perpendicular to the above said front (horizontal plane). For its markings on the tablet or on a table, on which lies the tablet, set a horizontal stand, with a vertically-disposed perpendicular thereto bar. Planck submitted to the edge of the cover. Angle between the plane and the plane of the strips of the cylinder head is measured in the usual orthopedic anatomical or protractor. This angle is equal to the angle of inclination of the acetabulum.

Results. As a result of our research found that the angle of inclination of the acetabulum is an average of 45,93 º, including left - 47,2 º, right - 44,8 º.

Measuring the angle of the acetabulum, which were made on 14 pelvis in young (youth) age showed that the average angle is 44,22 º (± 1,6), including 64.28% in the pelvis angle was in the range of 41 º - 50 º. Thus, the variability of this angle in those youthful age is somewhat less than in older age. The results of measuring the front torsion (SARS) acetabulum showed that the magnitude of this angle averaged - 19.06 º (± 2,6) including the left - 18,8 º, right - 19,3 º.

Measure angles front torsion 14 dry pelvis persons adolescence showed that the inclination angle of the front averaged 20,4 º, which is somewhat higher than in the bones of the elderly.

Conclusions. We have developed a technique for determining the orientation of the acetabulum (torsion angles and tilt input acetabulum) does not require special equipment and tools.

The average angle of inclination in the acetabulum input between its plane and the sagittal plane averaged 45,93 º (±3,1 º). The average angle of the front inclination was 19,06 º (± 2,6º).

Prospect of our robots is to use the results obtained orthopedic trauma research in the planning and execution of reconstructive operations on the hip joint, from prosthetics.

UDC: 616-053.7-071.3:371.24

Features variation of the thickness of skin and fat folds youth-pupils in a pedagogical process

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Introduction. The combination of various environmental factors that affect to the body are exogenous factors: natural, environmental and socio-economic. Among the exogenous factors the diet and nutrition, driving mode, emotional stress occupy a special place. These exogenous factors, along with others, are part of the pedagogical process. The pedagogical process is system of educational, training and production activities identified educational and scientific plans (lessons, lectures, laboratory exercises, rest time between classes, teaching practice, work placements, research work, excursions, sports, traffic or conversions to the event, etc.). By the time of entry to higher education, most young men and women reach a certain degree of physical maturity. However, the physical and mental development continues. The process goes through a series of successive stages, each characterized by its features, structure of mental activity, especially the relations of mental processes and personality, his relationship with the environment. Junior students vary in age, development, experience, individual characteristics, therefore it is impossible to regulate the process of the formation of future professionals without knowledge and consideration of their features.

Thus, today there are scientific works which examined the effect of endogenous and exogenous factors on anthropometric parameters youths [Aberle et al., 2009]. However, there are no works, which would be determined features changes anthropometric parameters such as thickness of skin and fat folds in terms of the educational process.

The aim of this study is to determine the characteristics of the thickness of skin and

fat folds of adolescent students in educational process of profile high school of the first level accreditation.

Materials and methods

Experimental studies performed on the basis of Vinnitsa Higher School of Civil Protection. This institution is a university departmental first level of certification of the State Service of Ukraine of Emergencies (DSNS). Teaching students has its own specifics related to service in the organs and units DSNS. The conditions of the pupils differ from the conditions stay students by lack a regulated regime of the day and less physically demanding. A lonhitudinalne (as I, II, III years of study) determine the thickness of skin and fat folds 93 adolescent students and analyzed the features of changes in the parameters in terms of the pedagogical process within three years. Determination of the thickness of skin and fat folds was determined as described Shephard R. [Shephard, 1991]. The analysis of the thickness of skin and fat folds conducted using STATISTICA-6,1 (StatSoft) using nonparametric and parametric methods for assessing performance.

Results and Discussion

The average thickness of the fat layer on the back surface of the shoulder in adolescent students in the first year was 4,35 ± 0,10 mm. In the second year this figure increased to 0.18 mm and did not change on the third (4,53 ± 0,10 mm). Thus the annual change this option in the first year was significantly higher by 0.18 mm compared with the annual change in the thickness of the fat layer on the rear surface of the second arm ($t = 3,83$ at $r \leq 0,05$).

The average thickness of the fat layer in the upper third of the forearm for training students increased by 0.05 mm, but annual changes in this parameter does not have significant differences.

The average thickness of the fat layer under the shoulder blade to the students during training increased by 0.27 mm, but annual changes in this parameter does not have significant differences.

The average thickness of the fat layer in the abdomen in students for learning is increased by 0.19 mm, but annual changes in this parameter does not have significant

differences.

The average thickness of skin and fat folds on the side of the students for learning is increased by 0.11 mm, but the annual change this parameter does not have significant differences.

The average thickness of the fat layer on the front surface of the femur in adolescent students in the first year is (9,64 ± 0,19) mm. In the second year this figure increased to 0.21 mm and is equal to (9,85 ± 0,17) mm. In the third year increased by only 0.03 mm compared to II and is (9,88 ± 0,16) mm. The minimum thickness of the fat layer indicator on the front of the thigh on the first and second years is 6.00 mm, for the third year increased to 7.00 mm. The maximum rate was unchanged during the study and is 14.00 mm. Thus the thickness of the fat layer on the front of the thigh to the students during training increased by 0.24 mm. Annual change this option in the first year was significantly higher by 0.18 mm compared with the annual change in the thickness of the fat layer of the front of the thigh in the second year ($t = 2,47$ at $r \leq 0,05$).

The average thickness of skin and fat folds on the back of the leg during training students increased by 0.05 mm, but annual changes in this parameter does not have significant differences.

Conclusions and prospects for further development

When comparing annual changes in the thickness of skin and fat folds of students found that all middle indexes during learning increase.

Significant differences were found when comparing the annual change only 2 of 8 (25.00%) parameters: the thickness of the fat layer on the back surface of the shoulder and on the front of the thigh.

All annual changes in the thickness of skin and fat folds of students in the first year were higher than the second.

The total and parcial'ni sizes of body need subsequent research not only in pupils, but also in other groups of boys (students) with next comparison of annual changes.

UDC: 616.325.01;87 – 21.37

Modern technology to improve the efficiency of independent work in the organization and planning of the educational process

Savoljuk S.I.

Summary. The experience of natural science training of health care professionals in higher education shows that the use of traditional didactics teaching methods and tools do not provide the intensive development of cognitive activity, individual abilities and professional knowledge in students. Overcoming these contradictions is possible provided the use of new approaches to the formation of students' knowledge. Problem can be solved through the use of interactive teaching methods, among which is the method of projects, brainstorming, case method. Introduction of interactive methods in the educational process aimed at building knowledge system of medical students who will be able to solve problems in various fields of practical professional activities.

Key words: independent work, interactive learning, method of projects, method of brainstorming – case-method.

Social Articles

UDC: 616.89 – 008.444.4 м-053.6 - 08

Antisocial behavior features of adolescents and ways of its correction

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Summary. The article analyzes and summarizes information about antisocial behavior of adolescents, such as juvenile delinquency. The problems of teenage drug

addiction, substance abuse, alcohol abuse in their relationship with social and economic conditions, the level of culture and education and features of higher nervous activity in adolescents. We discuss the biological, social and psychological factors that contribute to the emergence of deviant behaviors. We present the traditional and alternative methods of prevention and correction of these effects.
Key words: atypical behavioral responses, juvenile delinquency, social rehabilitation of adolescents

Introduction. Juvenile crime is a kind of indicator of social and economic state of the social system that responds very clearly in response to changes in the state of socio-political, financial and economic situation in a country, in a society in response to the occurrence of abnormal processes and phenomena recorded in different spheres of life of their inhabitants, etc. [Bondarev, 1988; Vasil'ev Yu, 1991; Tykhonenko, Yarovenko, 2001; Hlubokovskyh 2004]. In this context it should be noted that juvenile delinquency is seen as a relatively independent mass social and legal phenomenon that is subject to certain laws, is the presence of certain causes and conditions, including in its structure the set of all crimes committed during a period and is characterized by quantitative and qualitative indicators [Bocharova, 1991; Leonov, 1998; Chuhrayeva, 2000].

Conclusions and prospects for further development

1 Adolescent antisocial behavior is a multifaceted social and legal phenomenon, which includes primarily antidiscipline, antisocial, and delinquent autoagressiv components and characterized by a number of quantitative and qualitative indicators.

2 Greatest importance in causing various forms of antisocial behavior among adolescents acquire biological factors, such as psychological disorders, are strongly combined with social and psychological problems contribute to early alcohol abuse, drug abuse, suicidal tendency.

3 Researching effective methods of prevention and correction of pathological behaviors of adolescents - is a promising area for future medical and social research.

UDC: 616.596-003.871

Onychomycosis in vinnytsia region: viewpoint on the problem through the lens of population studies

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Introduction. The period from the end of XX - beginning of XXI century is characterized by a marked increase in the incidence of fungal infections. The feature has become a significant territorial distribution of the number of fungal infections, in particular dermatiti, which may be attributed to more intensive migration of the population and lifestyle changes in the industrial countries. According to the European part of the Achilles project, onychomycosis (OM) diagnosed in 23% of patients in the General population and 40% from diseases of the feet. According to the results of the Achilles project, conducted in Ukraine, the athlete's foot has 31% of patients in the General population. The results of other studies indicate that the frequency of the MLA men total population of more than 2 times the females, and the relative risk of MHI in persons of strong floor above the relative risk associated with age. The reasons for this dominance is explained differently: from the characteristics of social behavior to a possible genetic predisposition. Prevalence studies of patients OHM among the population of Vinnytsia region will help to draw attention to this issue and will provide an opportunity to optimize the financing of medical support of this pathology.

Materials and methods. The analysis report of dermatologists different regions Vinnytsia region in relation to morbidity and gender characteristics of onychomycosis for the period 2011-2013. Patients OHMS were registered dermatologist and received treatment according to existing protocols of medical care to the population of the MOH of Ukraine. Population data Vinnytsia oblast districts were taken on 1.01.2014 according to data of the Central statistics Department in the Vinnytsia region.

Conclusions

1. OM is a common ringworm in Vinnytsia region, the incidence during 2011-2013 totaled 38.4, 38,9 and 35.6 per 100 thousand population, respectively.

2. Defined quite significant differences in the incidence of OM in different districts of Vinnytsia region, which may indicate lack of diagnosis of the disease in most parts of the Vinnitsa region.

3. Analysis of gender features of the disease showed a greater frequency of this disease in women, which is contrary to the results of most population-based studies and may indicate a low detection OHM men.

Key words: onychomycosis, the population studies.

Review articles

UDC: 618.17:618.1-002

The issue of female reproductive function violations with gynecological pathology of inflammatory and non-inflammatory genesis

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Introduction. In conditions of economic instability, declining birth rate and high mortality rate, the issue of reproductive health is of particular importance. According to the who definition of reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity, in all areas of the reproductive system, its functions and processes. The reproductive health status of the population is a subject of interest not only medical practice, but also society, because it directly linked with the health of children and therefore the future of the state and nation. The reproductive system of women is the most dynamic biological object. Female genitals are extremely sensitive to adverse environmental factors the emergence of a number of new adaptive mechanisms that acquire in certain conditions, the properties of the pathological process in the future may cause pathological changes. The accelerating pace of life in modern society, the increasing aggressiveness of the human environment, the need to adapt to higher intellectual and psychological stress, deteriorating environmental conditions, diet, work and rest, especially reproductive behavior first bring the problem neuroendocrine disorders in the pathogenesis of diseases of the reproductive system and growth dishormonal disorders.

Conclusions

1. The difficulty in diagnosing the above pathological conditions is that the disease often occur under the guise of an inflammatory process of the internal genital organs and anti-inflammatory therapy, which is practically ineffective, indicating the significant role of psychological stress, characteristics, reproductive behavior, dishormonal disorders, hypoxic conditions, microbial invasion, immunological status, hereditary factors in the development of disorders of reproductive function of women and the need for further research to determine the etiological factors and features of the pathogenetic mechanisms of development of reproductive dysfunction in women.

Key words: reproductive health, dishormonal disorders, dysmenorrhea, ovarian tumor, chronic pelvic pain, chronic venous insufficiency, chronic salpingoophoritis.

UDC: 616.33 – 002.2: 616.33 – 006: 616.33 – 007.23: 616 – 006.6

Relationship between chronic gastritis, peptic ulcer and gastric carcinoma and their diagnostic value

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The aim of the work was to analyze morphologic and clinical relationship between inflammatory diseases and changing processes in gastric mucosa and cancer of the stomach by the experience of native and foreign scientists; to evaluate the significance of their early diagnostics and prevention. Study of the relationship between chronic gastritis (atrophic in particular), peptic ulcer and gastric cancer development is one of the leading problems in modern gastroenterology. About 25 per cent of adult population in the world is afflicted. According to the topographic grading there are three main clinical types of chronic gastritis depending on the affected portion of the stomach: antral, fundal and total. Their clinical manifestations are caused by morphofunctional state of gastric mucosa. That is why modern review of chronic gastritis is based only on morphologically confirmed diagnoses as each

type of gastritis requires certain therapeutic or preventive measures. Morphogenesis, clinical and morphologic manifestations as well as the prognosis of chronic gastritis are determined by the disturbances in cellular regeneration. Modern complete classification suggests three categories of changes in gastric mucosa and it is interpreted as a new classification of atrophic gastritis. Practical use of this classification proved to have a high level of agreement in interpretation of histologic characteristics permitting to predict clinical outcomes.

Understanding the nature of atrophic gastritis is of great significance as it is one of the main pre-cancer states of the stomach, its progression leading to such morphologic changes in gastric mucosa as intestinal metaplasia and dysplasia. Numerous investigations showed the risk of gastric cancer development to increase together with the progression of atrophic gastritis and the probability of gastric cancer development is directly proportional to the extent of atrophic changes occurring concurrently in antrum and body of the stomach. Detection of precancerous changes in gastric mucosa or gastric cancer in curable stages is a great problem.

It is difficult to overestimate the significance of differential diagnostics between benign and malignant ulcerative lesions of the stomach. The scientists define two possible types of such lesions: malignancy of benign gastric ulcer and infiltrative (primary) gastric cancer.

Clinical types of chronic atrophic gastritis and peptic ulcer of the stomach were found to have multispectral clinical features as well as complicated character of their relationship influenced by a number of various factors (secretory function, presence of H pylori, type of gastritis, dependence on the extent of morphologic changes in gastric mucosa, presence of ulcerative defects and their location in the stomach).

Great success has been achieved in studying chronic atrophic gastritis as one of the stages of gastric carcinogenesis. Etiologic and pathogenic mechanisms of its development are known today, informative methods of diagnostics including noninvasive have been worked out. Subsequent studies and classification of factors influencing the evidence and speed of pathologic changes development in atrophic gastritis are required.

Key words: gastric mucosa, chronic gastritis, atrophy, peptic ulcer, morphology, diagnostics.

UDC: 611.656:618.12

Tubal infertility. Causes and morphological changes of fallopian tubes

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Introduction. Despite the progress made in improving the diagnosis and treatment, female infertility is a medical and social problem [Krasnopol'skii, 2006]. In the structure of gynecological morbidity among women of reproductive age incidence of this disease is 60-80%. Tubal among a significant number of pathological conditions is one of the most common causes of infertility that lead to reproductive disorders in women and is 38-85%.

So our objective analysis on the causes and morphological changes in the wall of the fallopian tube during the development of its obstruction, particularly in its isthmus.

Results

In most cases, the cause of adhesions in the fallopian tubes, which lead to their obstruction, inflammatory processes are transferred, in which antibodies appear in the blood to the tissues of the ovaries, fallopian tubes and endometrium [Aizikovich, 2005]. Some authors also point to the important role of the epithelium and ciliary transport in the occurrence of ectopic pregnancy and infertility. Inflammatory processes in the fallopian tube is damaged mucosal epithelium, resulting in tight junctions occur, distorting the lumen tube and disrupt the function of egg transport. Common cause of tubal infertility in women may be adhesive process that occurs after operations on the pelvic or abdominal cavity, especially in ectopic pregnancy, ovarian cysts, apendiktomii. Important role in the tubular transport plays peristalsis. In the area of the isthmus of the fallopian tube muscular layer has a second inner longitudinal layer in which smooth muscle cells are located kosospiralno. The

presence of such structures in muscle structure indicates sphincter function of the isthmus of the fallopian tube. Violation of the histological structure of the muscle wall of the structures of the isthmus of the fallopian tubes, regardless of pathological factors, ultimately leading to the impossibility of passage of the fertilized egg in the uterine cavity or passage of sperm through the isthmus of the fallopian tube.

Conclusions

Thus, great importance is the cellular composition of the epithelial layer of the mucous membrane of the fallopian tube, the structural organization of which depends on the phase of the menstrual cycle-ovario. Thus, the mucosa of the isthmus of the fallopian tube more inherent bezviychasti (secretory) cells, whereas in the fallopian tube vial more represented ciliated cells. In the isthmus of the fallopian tube inner layers of smooth muscle cells have the greatest development and form the circular muscle of the fallopian tube. The presence of such structures in muscle structure indicates sphincter function of the isthmus of the fallopian tube. Violation of the histological structure of the muscle wall of the structures of the isthmus of the fallopian tubes, regardless of pathological factors, ultimately leading to the impossibility of passage of the fertilized egg in the uterine cavity or passage of sperm through the isthmus of the fallopian tube and loose adhesions avascular mucosal folds.

Key words: uterine tubes, tubular obstruction, tubal infertility.

UDC: 616.341:616.428:611.428:611.428-089

Endogenous intoxication in the pathogenesis of acute bowel obstruction

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Summary. Analyzes the contemporary domestic and foreign sources of scientific literature showing the role of intoxication in the pathogenesis of acute intestinal obstruction. Attention is drawn on the morphology and function of the lungs, heart,

neuroendocrine gastrointestinal tract, of the peripheral organs of the immune system with high acute ileus

Key words: acute bowel obstruction, pathogenesis, endogenous intoxication.

UDC: 618.36:618.46

Involutive - degenerative changes in the litter at physiological aging placenta and placental insufficiency

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Summary. The question of whether or not subject to aging and the placenta is still debatable. There are two basic concepts of structural and functional changes of litter during pregnancy. According to the traditional ideas that emerged in the early XX century, involutive-degenerative reflect changes in the placenta of aging as the body. Proponents of this theory believe that as ripening and becoming its own systems, necessary for life, reduced need for some functions of the placenta (trophic, hormonal, gas exchange, immune and excretory). In this regard, there is a corresponding reduction of the physiological structures that begins after 32 weeks of pregnancy increases after the 42nd and appears atrophic, sclerotic and degenerative processes that occur during aging bodies.

According to another hypothesis, at the end of pregnancy the placenta accumulate different structural damage that can be evaluated as pathological. The functional activity of the placenta in late pregnancy is reduced, but it is not an indication of the aging of the placenta. Some researchers identify the presence of the “aging” of more adaptive traits placenta maturation. This paper presents an analysis of the literature of domestic and foreign authors investigated the placenta at different stages of development in physiological pregnancy and placental insufficiency and the role of factors “aging of the placenta”.

Key words: placenta, involutive-degenerative changes, fibrynoyid, calcifications,

chorionic villi, feto- placental insufficiency.

UDC: 616.32 – 006.6 - 08

The present state of treatment of esophageal cancer, prognosis and quality of life assessment patients

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Summary. Treatment of esophageal cancer is one of the very complex problems of modern clinical oncology. Esophagus is closely adjacent to the surrounding organs, which in tumor infiltration cannot be removed along with the tumor. In addition, the severity of the disease caused by the fact that the swelling of the esophagus during the rapid growth causes disruptions passage of food. Syndrome of dysphagia brings serious psycho-emotional trauma to the patient. For several months developing cachexia, and patients die because of starvation. The most difficult cancer treatment has the upper third of the esophagus, which is not solving the problem of modern oncology. On the one hand, rapid intervention in the upper third of cancer is traumatic and ineffective, on the other hand the results of applying an integrated radiotherapy and combination therapy are encouraging. Data for different researchers conducting independent chemotherapy makes it impossible to obtain a satisfactory objective response. Adequate treatment results can be achieved only with a combination of radiation therapy and chemotherapy. Yet such treatment is a highly toxic by intravenous route of administration because of cytotoxic drugs, which is quite an important limiting factor. The article describes the main methods of treatment for esophageal cancer, their advantages and disadvantages, the assessment of quality of life and prognosis of the disease.

Key words: esophageal cancer, treatment, prognosis, quality of life of patients.

UDC: 612.397:577.352.4

The role of membrane lipids in the mechanisms of ion transportation - physiological and pathological aspects

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Introduction. Cell membranes in their numerous functions are an important integrating element in the regulation of intracellular and extracellular interactions and ion transport processes. Recently, the interest of many scientists was attracted to such specialized morphological and functional components of the membrane, as membrane lipids. According to the literature mechanisms of ion permeability of cell membranes associated with the movement of ions through ion channels and pumps. But increasingly there are studies that show that ions can flow normally to the cell by non-chanel directly through bilipid layer membranes. It should be noted that the effect of damaging factors on cell membranes, including activation of lipid peroxidation, appears to change their physical and chemical constants and mechanisms of membrane transport [Meyerson, 1984, Belenkov, 2000, Amos, 2000, Frost and others., 2001, Menshchikov, 2006, Chekman and others. , 2008, Vladimirov, Yushin, 2009, Zyn, 2012]. It is increasingly discussed in relation to pathological changes in the organism, its aging, compromised immune status and the development of cardiovascular disease.

Conclusions

1 Taking into consideration the variety of mechanisms of lipid cell membrane permeability to ions, we can assume that this is not a random phenomenon, but a reflection of the most ancient mode of regulation of ion permeability.

2 The processes that occur during the activation of lipid peroxidation leads to structural and functional modifications of lipid matrix of cell membranes and disrupt their basic properties, including permeability to ions.

3 Studying the role of lipids in membrane ion transport processes and mechanisms for the implementation of these processes under normal and disease - is a promising area

of biology and medicine and will develop new approaches to treatment and prevention of diseases.

Key words: membrane lipids, membrane ion transport, cell membrane permeability, lipid peroxidation, heart arrhythmia

UDC: 616-089.5:616.25

Experience in the use of intrapleural analgesia

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Introduction

Non-effective anesthesia after operative interventions on the thoracic organs can lead to a number of negative physiological consequences. The intrapleural blockade methodology has no disadvantages typical of epidural anesthesia. The main advantage is simplicity and absence of hypotension development. It can also be used in the patients with moderate hypovolemia. The research *objective* is to study the efficiency and safety of the use of intrapleural analgesia after thoracotomy.

Materials and methods

For adequate anesthesia after thoracotomy we used an intrapleural blockade with bupivacaine in 35 patients that underwent operative treatment at the Thoracic Department of Vinnytsia Regional Clinical Hospital during 2012-2013. The analgesia efficiency and duration as well as complications were determined in the group.

The manipulation was performed under aseptic conditions before suturing of the operative wound under direct vision. The puncture area was chosen between the front and middle axillary furrows, in the intercostal space between the third and sixth rib (considering the level of the surgical incision). The catheter was inserted at a depth of 3-6 cm using the needle end and was fixed in this position after its removal. Before each administration of a local anesthetic the "lower" drainage from the pleural space was blocked for 30 minutes for complete drug "fixation". For the fist introduction

bupivacaine 0,5% was used per 2 mg/kg of weight. For people with excessive body weight the dose was calculated for an “ideal” weight according to the formula: height minus coefficient (for the height up to 165 cm the coefficient was 100, up to 175 cm – 105, higher than 175 cm – 110).

Results

During the first introduction of bupivacaine the intrapleural blockade was efficient from 6 up to 18 hours (10 hours on the average). Later bupivacaine 0,25 % was used per 1 mg/kg of weight as required. Using such doses there was no need to repeat bolus more often than 4 times a day. There were no indications for the use of analgesics. The need for anesthetization was 2-3 days on the average. There were no complications in the investigated group during the catheter insertion. There was neither negative impact on the respiratory and cardiovascular systems nor undesirable motor block and symptoms of the anesthetic toxic action.

Conclusions

The proposed anesthetic technique is simple. It has few contraindications and does not cause negative impact on the respiratory and cardiovascular systems. It does not lead to undesirable motor block and symptoms of the anesthetic toxic action either.

The use of the intraoperative catheterization of the pleural space, calculation of bupivacaine dose depending on the body weight and drainage blocking from the pleural space allowed to provide effective and long-term anesthetization after thoracotomy.

Key words: intrapleural blockade, thoracotomy, anesthetization.

UDC: 616.23 – 46: 25 - 44

Hematologic complications of cytostatic therapy in leukemia

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Summary. This paper presents the results of our own research and literature data on

hematological complications of cytostatic therapy in patients with leukemia. We found that the current cytostatic polychemotherapy results in hematological complications in most patients, which significantly affects the quality of life and worsens the prognosis of diseases. Revised current approaches to the prevention and treatment of hematological complications of cytostatic therapy in patients with leukemia. It is shown that the prevention and correction of anemia and leykopeniy during cytostatic therapy remains an unresolved issue.
Key words: cytopenia, cytostatics, therapy, prevention, quality of life.

UDC: 616.8 – 009.17 – 054.4(477)

Chronic fatigue syndrome as display somatic diseases and other patological conditions population of Ukraine

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Summary. Chronic fatigue syndrome (CFS) - it is a common pathology of modernity, whose development is mainly due to the peculiarities of modern life especially in urban populations, with adverse environmental health situation as well as excessive psycho-emotional stress on the modern man. Despite the global nature of this disease and the importance for society, case studies of etiology, pathogenesis and clinical picture of CFS still does not exist. The article analyzes the data in the literature devoted to the study of this disease and are the main methods of diagnosis, treatment and prevention.
Key words: chronic fatigue syndrome, clinical signs, stress, immune system, treatments.

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Basis using of physical rehabilitation in patients with arterial hypertension (literature review)

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Summary. Review of the literature is devoted to the use of physical rehabilitation of patients with hypertension. The principles of non-medicional treatment are based on the correction of functional state of the body by changing the mode of the life activity with using of means and methods of physical rehabilitation. It is represented the connections between visceral and somatic structures. It is suggested the possibility of increasing the effectiveness of treatment of patients with hypertension through complex effects on myofascial structures wich is involved in the pathological process by differentiated programs of physical training.
Key words: arterial hypertension, physical rehabilitation.

UDC: 613.99:611.65/67:612.62:613.956:572:575.191:576.75

Features of antropometric and somatotypological characteristics of teenage girls

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Objective: to analyze the experience of domestic and foreign scientists anthropometric features and somatotropic characteristics of the modern adolescent girls. Nowadays the choice constituting criteria for assessing the state of the reproductive system depends on the researcher and does not have sufficient confirmation of the fundamental works. Therefore, great interest is the study of morphometric and physiological parameters of the reproductive system, taking into account the constitutional types, composition of the body weight and other anthropometric and genetic characteristics in specific socio-environmental conditions of different ethnic groups. Man, as a species, is characterized by a large variability of morphological and physiological traits. The genotype of a person over time, in the

course of phylogeny is reproduced in the external qualities, i.e. in the phenotype. Among the large number of morphological and functional characteristics of the person rather high genetic conditionality has somatotype, which reflects the features of the Constitution. In medical anthropology, the Constitution is a fundamental characteristic of the entire organism, fully reflect the view of the qualitative unity of biological organization constitutional types, composition of the body weight and other anthropometric and genetic characteristics in specific socio-environmental conditions of different ethnic groups.

Summary. In the article there are described anthropologic and somatotypologic characteristics of parameters of the junior girls' shortly described new ways and problems.

Key words: reproductive health, junior age, constitution, somatotype.