ABSTRACT&REFERENCES

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IMPROVEMENT OF INDICES OF IMMUNITY OF HIV-INFECTED INDIVIDUALS WITH CHRONIC TOXOPLASMOSIS INFESTATION AND INSUFFICIENT IMMUNE RECONSTITUTION of ANTIRETROVIRAL THERAPY THROUGH THE USING OF RIBONUCLEIC ACID MEDICATION

p. 4-9

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Aim of the work. *To study the possibility of additional correction of immunologic imbalance by ribonucleic acid medication in HIV-infected persons, infested by Toxoplasma gondii, who receive antiretroviral therapy and did not attain immunoreconstitution.*

Methods of research. *60 HIV-infected persons, seropositive as to Toxoplasma gondii infestation were examined. All patients received antiretroviral therapy (ART) during no less than 6 months, but the number of CD4+T-lymphocytes in them did not exceed 350 kl/mcl of blood. The immune-enzyme method was used for determination of titres of specific anti-toxoplasmosis IgG and IgM; general IgM, IgA, IgG, and also IL-2, IL-4, IL-10, INF-γ, TNF-2α. The number of CD4+ T –lymphocytes was determined by cytofluorimetric method. The one group of 30 persons received ribonucleic acid medication in dose 1500 mg a day during 1-st month and during 2-d and 3-d month - 750 mg a day; other group of 30 patients did not receive medication. The statistical processing was carried out in Excel, using Student t-criterion.*

Results. *In HIV-infected persons with toxoplasmosis infestation comparing with healthy ones were revealed the increased levels of proinflammatory cytokines - TNF-α (2,47±0,11 pg/ml against 1,90±0,04 pg/ml, P<0,001), INF-γ (10,82±0,38 pg/ml against 4,13±0,12 pg/ml, P<0,001), and anti-inflammatory ones IL -4 (1,74±0,08 pg/ml against 0,81±0,09pg/ml, P<0,001) and IL-10 (11,64±0,31 pg/ml against 6,70±0,13 pg/ml, P<0,001). The persons, who received ribonucleic acid medication comparing with ones, who did not receive it, demonstrated the increase of IL-2 (2,83±0,11 pg/ml against 2,28±0,11 pg/ml, P<0,001) and INF-γ (11,29±0,25 pg/ml against 9,98±0,26 pg/ml, P<0,001), instead of it TNF-α decreased (2,25±0,08 pg/ml against 2,50±0,09 pg/ml, P<0,05). After 3-d month of treatment IL-10 (7,73±0,22 pg/ml against 9,83±0,30 pg/ml, P<0,001), TNF-α (2,23±0,10 pg/ml against 2,53±0,09 pg/ml, P<0,05)levels decreased, and INF-γ increased (10,37±0,11 pg/ml against 9,86±0,20 pg/ml, P<0,05). In the group of patients, who did not receive medication the relapse of toxoplasmatic encephalitis appeared in two cases.*

Conclusion. *It was established, that HIV-infected persons, with Toxoplasma gondii infestation, who took ART but with insufficient immunoreconstruction, demonstrated the increased levels of several proinflammatory (TNF-α, INF-γ) and anti-inflammatory (IL-4, IL-10) cytokines. After the treatment using ribonucleic acid medication the levels of CD4 + T-lymphocytes, IL-2 and INF-γ increased and IL-10 decreased that eliminated the risk of toxoplasmatic encephalitis development*

Keywords: *HIV-infection, toxoplasmosis infestation, brain toxoplasmosis, immunorehabilitation, antiretroviral therapy, ribonucleic acid medication*

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THE STUDY OF FEATURES AND PROSPECTS OF THE INSURANCE MEDICINE IN UKRAINE IN MODERN CONDITIONS

p. 9-15

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Introduction. *The necessity of development and incipience of insurance medicine in today's realities of Ukrainian health care system is caused by the need in qualified medical care for different groups of population depending on their material prosperity, especially for socially disadvantaged people, in stable healthcare financing, and maintaining of the proper level of medical care. The main task is the study of the modern tendencies of development and predicting of future changes in economic and social environment, as well as their influence on healthcare system. The modern development of social insurance in Ukraine confidently shows that the use of nothing but administrative measures is not enough for adequate work efficiency and reforms.*

Statement of research. *In fact, there are a number of modern works in the national scientific literature devoted to attempts to consider the theoretical, historical, financial, economic, organizational and administrative aspects of health insurance, but comprehensive analysis of this issue still needs attention of scientists and society in general. This concept allows designing reasonable and substantiated recommendations for health insurance development.*

Aim*: the study of features and prospects of the insurance medicine system in modern Ukrainian realities.*

Results and discussion. *The choice of heath care model should completely meet the modern requirements in the country. The transition to health insurance should be performed considering the population's wealth level, and possibilities of payment of part of medical services while maintaining the appropriate social protection for disadvantaged populations. Implementation of mandatory insurance is usually accompanied by the insured attachment to a particular territory which the insurance institution serves; also it should determine the procedure for transfer submission to the certain areas to equalize the financial capacity of the different regions. The existing legislation should provide a certain level of heath care services profitability, and competition in the medical services market will improve the quality of medical care. In future, it should slowly increase health care costs by financing from many different sources, and medical and diagnostic processes management using standards will make clinical management system closer to self-regulating system.*

Conclusion. *Improvement of medical care for persons involved in one or another type of medical insurance by implementation of medical insurance system as an independent commodity and market relations in health care area is the main goal for the current health system in Ukraine*

Keywords: *insurance medicine, health care organization, organizational and administrative technologies, quality, reform*

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EFFECACY EVALUATION OF TREATMENT AND REHABILITATION IN PATIENTS WITH THE FIRST PSYCHOTIC EPISODE WITH BIOLOGICAL RHYTHMS

p. 15-19

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The aim *of this research was in evaluation of efficacy of treating-rehabilitating arrangements in patients with the first psychotic episode taking into account biological rhythms.*

Materials and methods: *The study included 130 patients with the first psychotic episode. The characteristic of biological rhythms was carried out according to Estberg scale, evaluation of life quality according to SF-36 scale.*

Results: *The psychoeducational program was realized in stages and included informational (explanation to patient and relatives of the necessity to take medicaments and visit doctors, the features of disease manifestation, prognosis), therapeutical (prevention of autoaggressive tendencies), social (overcoming of patient's stigmatization, formation of support by family members) and final stages (formation of new forms of reaction in the case of aggravation). According to the distribution in groups of daily working activity, the psychoeducational arrangements with patients of the first group was realized in second half of day, and with ones of the second and third group – in first half.*

Conclusions: *As a result of the study it was established, that the use of clinical protocols of treatment together with psycho-educational program taking into account biological rhythms in patients with the first psychotic episode leads to the improvement of their life quality. So, the further studies in this field are the priority direction in psychiatry to improve the prophylactic, treating and rehabilitating arrangements*

Keywords: *first psychotic episode, psycho-educational program, biological rhythms, prophylaxis, treatment rehabilitation*

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THE ANALYSIS OF COMORBIDITIES IN GERIATRIC PATIENTS WITH PROXIMAL FEMUR FRACTURE

p. 20-23

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The frequency of proximal femur fractures is 35–40 % in the structure of different skeletal fractures. Elderly people, usually having several somatic diseases, are the main contingent of patients with fractures of this localization. Comorbidities and general condition of patients should be considered for treatment strategy determination.

Aim. *To study comorbidities structure in geriatric patients with proximal femur fractures and to estimate comorbidities influence on the choice of the treatment strategy.*

Materrials and methods. *568 case histories of patients, hospitalized in the trauma department of Kharkiv clinical multy-field hospital № 17 with proximal femur fractures during 2008–2014, were analyzed.*

Results. *Most of the patients had low energy trauma. 568 patients were included in the research; 205 (36.09 %) of them were males, and 363 (63.91 %) – females. The age of patients ranged from 62 to 97 (the average age 79.2±9.1). Comorbidities were found in 378 patients (66.5 %). The time from the moment of injury to hospitalization ranged from 30 minutes to 4 weeks (25 hours on the average). The average number of bed capacity was 17 days (from 1 to 84 days). In 72.7 % of cases coronary heart disease was found, in 47.6 % - hypertension, and diabetes mellitus – in 10.8 %. One comorbidity was found in 131 patients (34.65 %), two comorbidities – in 153 patients (40.47 %), three or more was found in 84 patients (22.22 %). The surgical treatment was applied in 29.57 % of cases, conservative – in 70.42 % of cases.*

Conclusion. *The elderly patients in 66.5 % of cases have comorbidities, and cardiovascular pathology is the most common. The patients with the giving fractures need more detailed examination to select the optimal treatment strategy*

Keywords: *proximal femur, treatment methods, fracture, old age, comorbidities*

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COMPARISON OF KINETICS OF RADIOPHARMACEUTICAL (^{99m}Tc-MDP) IN PATIENTS WITH DEFORMING OSTEOARTHRITIS AND RHEUMATOID ARTHRITIS OF THE HIP JOINTS BY OSTEOSCINTIGRAPHY

p. 24-27

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The aim of this work *is determination of kinetics of radiopharmaceutical (^{99m}Tc-MDP) in the nidi of fixation of injured joint structures in patients with deforming osteoarthritis and rheumatoid arthritis of hip joints.*

Material and methods of research. *The three-phase osteoscintigraphy (3p-OSG) with technetium-methylene diphosphonate (^{99m}Tc-MDP) was carried out according to the standard protocol to 92 patients with deforming osteoarthritis and rheumatoid arthritis of hip joints, among which– 54 women and 38 men, 37–75 years old.*

Results. *Kinetics of ^{99m}Tc-MDP in the nidi of injured hip joints fixation at rheumatoid arthritis is characterized with statistically reliable prevalence of integral perfusion, retention, specific accumulation of indicator at the stages of 3-P OSG comparing with fixation nidi at deforming osteoarthritis that correlates with the differences of destructive-reparative processes in them.*

Conclusions. *The increase of intensity of radiopharmaceutical (RP) fixation in pathological nidus at rheumatoid arthritis (RA) as to deforming osteoarthritis (DO) indicated the intensification of arterial blood supply of such nidi as a result of active inflammation, influence of infection agent or increased osteoplastic activity. The integral perfusion in rheumatoid arthritis nidi was essentially more at the expanse of the increase of vascular permeability as a result of infection agents affect, activation of the factors of resorption and synthesis of the mineral components of angiogenesis. RP retention increased in the nidi at rheumatoid arthritis that testified to the high extractive ability of such nidi*

Keywords: *radiopharmaceutical, osteoscintigraphy, deforming osteoarthritis, rheumatoid arthritis, integral perfusion, retention*

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THE IMPACT OF EXOGENOUS L-ARGININE ON CARDIOHAEMODYNAMICS AND HEART RHYTHM VARIABILITY IN PATIENTS WITH CORONARY HEART DISEASE AFTER COMMUNITY-ACQUIRED PNEUMONIA

p. 24-34

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Aim of the work*: to study the influence of exogenous L-arginine on structural-functional indices of heart, intensity degree of myocardium coronary changes and heart rhythm variability in patients with coronary heart disease after community-acquired pneumonia.*

Methods of research*: the open prospective study included 60 patients with CHD, exertional angina, 2–3 f.c., who under-*

went community-acquired pneumonia of 3 clinical group (men – 34, women – 26, age median 72,50 (66,00; 75,00) years old). All patients underwent clinical examination, included clinical-laboratory methods of examination, two-dimensional echocardioscopy and impulse-wave dopplerography, daily monitoring of ECG by Holter at admission to hospital and in 3 months. After singing the informed consent, the patients were randomized in 2 groups. Main group included 30 persons, who received L-arginine in addition to basic CHD therapy, 30 patients of control group received only basic therapy.

Results of research: *patients of main group at secondary examination in three month demonstrated a tendency to decrease of final-diastolic volume of LV, reliable increase of fraction of left ventricle emission by 4,44 % ($p<0,05$), and decrease of mean pressure in pulmonary artery was more significant (8,33 % vs 2,94 %; $p<0,05$). The inclusion of L-arginine in the scheme of CHD treatment favored the reliable ($p<0,05$) decrease of tachycardia duration by 49,77 %, number of ventricular extrasystoles by 63,2 %, duration of ST segment depression by 56,52 %, increase of general heart rhythm variability (rMSSD – by 70,00 %, TP – by 97,42 %) and decrease of LF/HF index by 11,67 % at the expanse of activity of parasympathetic component comparing with patients, who received only basic therapy.*

Conclusions*: the addition of L-arginin to the basic therapy in patients with IHD has the positive influence of cardiohemodinamics, favors the decrease of intensity degree of coronary changes and normalization of sympatho-parasympathetic balance of vegetative nervous system*

Keywords*: coronary heart disease, community-acquired pneumonia, cardiohemodynamics, heart rhythm variability, treatment, L-arginine*

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ANALYSIS OF SEX HORMONES INFLUENCE ON BIOCHEMICAL INDICATORS OF HEART STATE IN RATS: CONNECTION WITH HYDROGEN SULFIDE LEVELS IN MIOCARDIUM

p. 35-38

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The aim of the work *was to study the influence of different saturation of male and female rats' organism with sex hormones on the parameters of pro-antioxidant system in heart and to assess their connection with the level of hydrogen sulfide in myocardium.*

Methods of research: *The experiments were realized on 60 laboratory rats of both sexes. The experimental modeling of sex hormones level in rats' organism was carried out by castration of animals under calypso anesthesia. The alternative hormone therapy in castrated male rats was carried out by administration of testosterone propionate, in females – estradiol hemihydrates. In myocardium was determined H_2S content, activity of NAPD-oxidase, superoxide dismutase, level of malondialdehyde and carbonyl groups of protein. The level of testosterone and estradiol was assessed in heparin plasma.*

Results of research*: H_2S content and superoxidase dismutase activity are reliably less in male myocardium, whereas the activity of NAPD-oxidase, process of lipids and proteins peroxidase is reliably higher than in females. Male castration is attended with reliable increase of H_2S content, superoxide dismutase activity and decrease of NAPD activity, lipids and proteins peroxidation processes activity in myocardium, whereas female castration caused the opposite changes. The alternative therapy with sex hormones approximated the indices to the level of control group of animals.*

Conclusions: *high content of estradiol and low level of testosterone in blood plasma is associated with the high content of hydrogen sulfide in myocardium that is attended with the low activity of process of lipids and proteins free radical oxidation. The received data testify to the fact that the system of hydrogen sulfide in myocardium is an important factor of gender dimorphism of heart status in rats*

Keywords: *peroxidation of lipids and proteins, hydrogen sulfide, myocardium, sex hormones*

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VARIABILITY OF ARTERIAL PRESSURE IN ACUTE STROKE - A MODERN APPROACH TO THE PROBLEM

p. 39-43

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The question of prospects of using the data of variability of arterial pressure as a base of predictor of development, course and consequences of brain stroke is considered on the base of studied literature.

Methods of research: *E-data base Medline and PubMed was used for thorough searching for literature on studied questions.*

Results. *The results of scientific literature analysis testify to the connection between variability of arterial pressure and hypertrophy of left ventricle, endothelial dysfunction, development of new cases of auricles fibrillation. According to AP day monitoring, the direct positive connection between the mass index of myocardium of left ventricle and SAP and DAP variability was found. It is indicated, that SAP variability in childhood is a predicator of arterial hypertension development in adulthood. It is shown, that VAP growth can be a predicator of both first and secondary stroke. There are also the data about independent prognostic value of 24-hour variability of arterial pressure as to cardio-vascular events. The duration of study of 24-hour variability of arterial pressure and the number of publications on this question is underlined and insufficiency of information about long-term variability of arterial pressure is noted. It is accented, that in modern assessment of clinical importance of different parameters of arterial pressure variability the change of priority from 2-hour to long-term monitoring of arterial pressure "from visit to visit" is observed.*

The urgent need in elaboration of accessible methods of assessment of long-term variability of arterial pressure (VAP) that would supply the doctors-practicians with additional information as to the stroke risk and possible consequences is felt.

Conclusions. *Long-term variability of arterial pressure can be considered as a predictor of stroke development and as independent factor of influence on consequences of undergone brain stroke. It is shown, that the problem of arterial pressure variability is polyhedral and needs further deep study*

Keywords: *variability of arterial pressure, day VAP, long-term VAP, stroke, predictor*

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ANALYSIS OF THE PATHOPERSONOLOGICAL STRATIFICATIONS IN PATIENTS WITH SEVERE DIABETES MELLITUS 2 TYPE

p. 44-47

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Aim. *To study the pathopersonological features of patients with severe DM type 2 for improvement of diagnostics and treatment of patients with DM type 2.*
Materials and methods. *On the bases of MI "Zaporizhzhya city hospital № 1" and MI "Regional clinical endocrinology dispensary" of Zaporizhzhya region council were examined 174 patients with severe diabetes mellitus type 2, who underwent stationary treatment; average age in group was (61,8±0,85) years old.*
Methods of research: *anamnestic, clinical-psychopathological, psychodiagnostic.*
Results of research. *As a result of research, the pathopersonological features of patients with severe diabetes mellitus type 2 were established. There were separated five types of pathopersonological stratifications in patients with severe diabetes mellitus type 2: psycho-organic (deficit and affective-labile variants), astheno-neurotic, psychastheno-depressive, ergo-hypersthenic and hypochondriac types. The influence of each established type of pathopersonological stratifications in patients with severe diabetes mellitus type 2 on their compliance to the therapy was studied. The dominant types of of pathopersonological stratifications in patients with severe diabetes mellitus type 2 were established.*
Conclusions. *The established types of pathopersonological stratifications in patients with severe diabetes mellitus type 2 can be a base of diabetic pathopersonology that improves the quality of differentiated diagnostics and approaches to the therapy and psychoprophylaxis of DM type 2, including in the context of correction of compliance to the therapy of DM type 2 at the expanse of dyscompliant personal features leveling*
Keywords: *diabetes mellitus type 2, pathopesonology, psychopathic disorders, compliance*

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