

ABSTRACT&REFERENCES

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INFLUENCE OF IMMUNOLOGICAL MARKERS OF CARDIOVASCULAR RISK ON ATHEROSCLEROSIS EARLY DEVELOPMENT IN PATIENTS WITH RHEUMATOID ARTHRITIS

p. 4-9

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Aim of the study. To investigate the peculiarities of immunological markers of systemic inflammation in patients with rheumatoid arthritis (RA) depending on the clinical-immunological variant of the course of RA and on the duration of the disease.

Materials and methods. We examined 82 patients with RA, aged (37.6±5,1) years. The history of the disease was less than 3 years in 47.5 % of patients (n=39) and in 52.5 % of patients (n=43) – it was more than 3 years. In 48 (58.5 %) patients a seropositive variant of RA was observed and 34 (41.5 %) patients were with seronegative variant of the disease. All patients underwent a complex clinical, laboratory and immunological examination. RA activity was assessed using the DAS 28 index; immune-enzyme assay method was used to assess the level of rheumatoid factor (RF), antibodies to cyclic citrullinated peptide (ACCP), C-reactive protein

(CRP), proinflammatory cytokines (tumor necrosis factor- α (TNF- α), interleukin-1 β (IL-1 β) and IL-6).

Results. The levels of pro-inflammatory cytokines in RA showed a statistically significant increase in their concentration in all groups of examined patients compared with the control one. The highest levels of TNF- α ($p=0.046$) and IL-1 β ($p=0.025$) were in the group of patients with the seronegative variant of RA lasting less than 3 years; the highest concentration of IL-6 ($p=0.018$) was determined in patients with a long course of seropositive RA. Correlation analysis allowed determining the association of hyperproduction of TNF- α , IL-1 β and IL-6 with the duration of RA and disease activity. In all groups of patients with RA an increase in the serum CRP concentration was detected. It was more expressed in patients with a seropositive variant of RA with a disease duration of more than 3 years. In addition, correlation links between CRP and IL-6, IL-1 β , TNF- α have been established. The direct correlation between the level of CRP and the DAS28 index ($p<0.0001$), RF concentration, ACCP ($p=0.05$) was also revealed.

Conclusions. A study in the serum of mediators of immune inflammation in patients with different clinical and immunological variants and duration of RA revealed differences in their content. In patients with anamnesis of RA less than 3 years, a predominant increase in TNF- α and IL-1 β was detected in case of a seronegative disease type. In patients with a disease duration of seropositive RA for more than 3 years, the content of IL-6 was increased largely, compared with rates in patients with a similar duration of the seronegative disease. In patients with a RA seropositive duration of more than 3 years, the CRP content was 1.3 times ($p=0.05$) higher than in the group of patients with a history of the disease less than 3 years and 1,6 times ($p=0.001$) higher than in patients with similar duration of seronegative RA

Keywords: rheumatoid arthritis, course of the disease, cardiovascular risk, cytokines, C-reactive protein, atherosclerosis

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CLINICAL FEATURES OF HEART FAILURE WITH REDUCED EJECTION FRACTION IN PATIENTS WITH OBSTRUCTIVE SLEEP APNEA SYNDROME

p. 10-14

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Aim of the research: to estimate the clinical features of chronic heart failure with a reduced ejection fraction in patients with obstructive sleep apnea compared with patients without sleep breathing disorders and to establish the relationships of clinical symptoms, anthropometric dates with the degree of hypoxic disorders during sleep.

Materials and methods. 152 patients with chronic heart failure were enrolled in our open, prospective, non-randomized study. The control group consisted of 57 patients with obstructive sleep apnea without heart failure. A general clinical examination, anthropometric measurements, questionnaires, cardio-respiratory monitoring, echocardiography, the assessment of NT-proBNP were conducted to all participants in the study.

Results. Patients from main group compared with control group were older (by 15.6 %, $p<0.05$), had a higher body mass index and degree of obesity (by 16,9 %, $p<0.05$ and 22.1 %, $p<0.05$), had a longer history of arterial hypertension (by 36.3 %, $p<0.01$), ischemic heart disease (by 23.6 %, $p>0.05$), AF (by 16.0 %, $p>0.05$), diabetes (by 25.3 %, $p<0.003$). According results of correlation analysis in patients with heart failure and obstructive apnea a significant negative relationship apnea-hypopnea index with age ($r=-0.418$; $p<0.001$), ejection fraction ($r=-0.376$; $p<0.01$) and a direct link with body mass index ($r=+0.512$; $p<0.003$) were found. Mean SaO_2 significantly correlated with ejection fraction ($r=-0.212$; $p<0.05$), duration of arterial hypertension ($r=-0.417$; $p<0.001$), the level of office systolic arterial pressure ($r=-0.351$; $p<0.01$) and the level of office diastolic arterial pressure ($r=-0.331$; $p<0.01$).

Conclusions. The prevalence of obstructive sleep apnea in patients with heart failure with reduced ejection fraction is 40.1 %, while 55.7 % of patients have severe obstructive sleep apnea. Patients with heart failure with reduced ejection fraction and obstructive sleep apnea are older, have a higher body mass index; they more often have comorbid pathologies in their medical history, namely, arterial hypertension, coronary heart disease, atrium fibrillation, and diabetes mellitus. According results of a correlation analysis, a significant relationships of apnea-hypopnea index with age ($r=-0.418$; $p<0.001$), ejection fraction ($r=-0.376$; $p<0.01$) and body mass index ($r=+0.512$ $p<0.003$) were found

Keywords: heart failure, obstructive apnea, ejection fraction

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MOTOR AND NON-MOTOR MANIFESTATIONS OF BENIGN MULTIPLE SCLEROSIS: THE RESULTS OF A 5-YEAR PROSPECTIVE STUDY

p. 15-18

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The aim of work was to assess the motor and non-motor effects of the disease in patients with benign multiple sclerosis (MS) during the 5-year follow-up period.

Materials and methods: the observational, prospective five-year, double-blind study of patients with benign MS

was conducted for the first time in Ukraine. On the basis of the electronic register of patients with multiple sclerosis in the Volyn region, a group of patients with benign multiple sclerosis according to the following criteria: duration of MS for more than 10 years, full or partial working capacity, degree of disability of EDSS ≤ 4 points was allocated in 2012–2013. In 2017–2018 a reassessment of patients with benign MS was performed. According to the degree of disability on the EDSS scale, at the stage of inclusion in the study, patients were divided into three groups: the first group includes patients with a degree of EDSS ≤ 2.0 points, to the second group – with an EDSS degree of 2.5–3.5 points, to the third group – with the degree of EDSS ≤ 4.0 points.

Results: there were included 74 persons, age 46.44 ± 8.36 years into analyses. According to the degree of EDSS step at the stage of inclusion in the study, patients were divided into three groups. The demographic, clinical and paraclinical characteristics were evaluated. It has been established that the initial level of functional disability on the EDSS scale is not a determining factor in the assessment of the level of disability and employment after 5 years. Progression of the disease was observed regardless of the initial level of EDSS in at least two functional scales.

Conclusions: the proportion of benign multiple sclerosis after 15 years of follow-up was 9.76 %. With a lower initial score on the EDSS scale, there is an increase in motor manifestations, with more – non-motor symptoms of multiple sclerosis. Progression of the disease is observed in at least two functional scales.

Keywords: multiple sclerosis, benign multiple sclerosis, failure, prospective study, functional scales

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INFLUENCE OF RECOMBINANT GROWTH HORMONE TREATMENT ON THE STATE OF PITUITARY-THYROID AND PITUITARY-ADRENAL SYSTEMS IN CHILDREN WITH SYNDROME OF BIOLOGICALLY INACTIVE GROWTH HORMONE

p. 19-22

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Combined insufficiency of adenohipophysis such as thyrotropic and adrenocorticotropic, especially during treatment with recombinant growth hormone, were often observed among children with somatotropic insufficiency.

Aim. To evaluate the adaptation mechanisms of the organism based on studying the peculiarities of pituitary-thyroid and pituitary-adrenal functions in patients with syndrome of biologically inactive growth hormone on the background of recombinant growth hormone treatment.

Materials and methods. There were examined 158 patients with syndrome of biologically inactive GH (49 girls and 109 boys); the mean age of patients was 8.3 ± 0.24 years. The levels of thyrotropic hormone, thyroxine, triiodothyronine, thyroid peroxidase antibody, adrenocorticotrophic hormone, and cortisol were determined. The examinations were performed before and against the recombinant growth hormone treatment for 6 months. The control group consisted of 42 healthy children (12 girls and 30 boys), the age was from 5 to 16 years.

Results. The levels of thyrotropic hormone in blood plasma of children with syndrome of biologically inactive growth hormone were increased but remained within the normal range during therapy with recombinant growth hormone. Peripheral indices of thyroid function in patients with syndrome of biologically inactive growth hormone, according to free thyroxine, before treatment and against the background of the recombinant growth hormone use almost had no differences and did not reach a significant difference, although they tended to decrease compared with the control group. The levels of adrenocorticotrophic hormone and cortisol in blood plasma of children with syndrome of biologically inactive growth hormone before recombinant growth hormone treatment comparing to the control group did not have significant differences. Recombinant growth hormone therapy for 6 months resulted in an increase in the values of adrenocorticotrophic hormone ($p < 0.01$) and cortisol ($p < 0.01$) compared with those of children with syndrome of biologically inactive growth hormone before the use of recombinant growth hormone and practically consistent with the reference values.

Conclusions. Syndrome of biologically inactive growth hormone is not accompanied by disorder of the thyrotropic and adenocorticotrophic functions of the pituitary gland. Reserve adaptive mechanisms of pituitary-thyroid gland and pituitary-adrenal gland systems have an adequate response to long-term treatment with recombinant growth hormone drugs

Keywords: biologically inactive growth hormone, pituitary gland, thyroid gland, adrenal glands, treatment

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ANALYSIS OF COMBINATION OF CHRONIC MYELOPROLIFERATIVE AND LYMPHOPROLIFERATIVE DISEASE IN ONE PATIENT

p. 23-27

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A review of the literature on the combination of chronic lymphoproliferative and chronic myeloproliferative disease in one patient, which are diagnosed simultaneously or in the treatment of an existing hematological nosology, was conducted. In this paper, in addition to a brief overview of current sources, five patients are presented with two diagnoses simultaneously: a combination of chronic myeloproliferative and chronic lymphoproliferative diseases. In three of them, on the background of true polycythemia, chronic lymphocytic leukemia was diagnosed (2 patients) after 1 and 8 years, the third – non-Hodgkin B-large-cell diffuse anaplastic CD-30-positive lymphoma, which was detected on the background of 5-year therapy for myeloproliferative pathology. One patient was simultaneously diagnosed with multiple myeloma and idiopathic myelofibrosis, in the other case –

during the treatment of diffuse B-cell non-Hodgkin lymphoma of the mantle zone, essential thrombocythemia was diagnosed, which after 2 years transformed into idiopathic myelofibrosis. The aim of the work was to describe the cases when a chronic myeloproliferative and lymphoproliferative disease is present in one patient at the same time. These 5 patients were observed in the advisory clinic of the State Institution “Institute of Blood Pathology and Transfusion Medicine of the National Academy of Medical Sciences of Ukraine” in the period 2011–2018. Despite the rarity of a combination of chronic myeloproliferative and lymphoproliferative diseases, this possibility must be taken into account in order to avoid diagnostic errors. These patients require an individual approach to diagnosis, and the treatment of these patients is quite problematic and should be directed to the treatment of each disease separately.

Keywords: myeloproliferative disease, lymphoproliferative disease, chronic lymphocytic leukemia, lymphoma, polycythemia, myelofibrosis

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THE INFLUENCE OF VARIOUS ANESTHETIC TECHNIQUES ON LIFE QUALITY OF PATIENTS DURING THE POSTOPERATIVE PERIOD AFTER CURETTAGE OF THE UTERINE CAVITY

p. 27-36

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Curettage of uterine cavity (CUC) is an informative diagnostic and treatment method, which is widely applied in gynecology of one day. However, its low injury rate is not able to exclude completely the development of postsurgical pain syndrome, consequently changing the life quality of patients. The occurrence of psychosomatic effects is influenced by the underlying disease, concerning which the manipulation was performed, the psycho-emotional atmosphere of the hospital, the intensity of the pain syndrome, etc.

Aim: to define the range of clinically significant changes of life quality after outpatient endouteral operational interventions, and to evaluate the influence of components of anesthesia service, which have the greatest influence on changing life quality of female patients in the early postoperative period.

Materials and methods: during the postoperative period the interviewing of patients was conducted with the use of scale enquirer of life quality EQ-5D, “Enquirer of life quality of patients during the postoperative period” and with the use of visual analogue scale (VAS), statistical processing of received data was also performed.

Results: the conducted research identified prime factors of influence over life quality of patient in pre- and postoperative period of CUC, rational methods of improving life quality after CUC. These are physical (postoperative pain syndrome) and psychological (fear of future surgery, nervousness regarding its carrying-out, its results and expectation of pain during operative intervention) factors.

Conclusions: the prime factor, which has notional influence on life quality in the postoperative period of CUC, is a disorder of emotional-volitional sphere, albeit in imperceptible intensity, however in statistically significant feeling jittery and mental depression, caused by fear of women before the upcoming operational intervention, peculiarities of its performance and results, as well as the quality of anesthesia service. In the postoperative period of CUC the greatest influence on life quality of patients has the postsurgical pain syndrome. A method of preventive intraoperative anesthesia allows to prevent the development of pain syndrome in an efficient and timely manner, and thus goes into efficient way of improving life quality of patients of gynecologic hospital of one day in the postoperative period of endouteral operational interventions. Research results have also found out a circumstantial positive influence of the indicated method of anesthesia on the characteristics of emotional state and a possibility to prevent disorders in emotional-volitional sphere of female patients

Keywords: anesthesia, one day gynecology, curettage of uterine cavity, life quality, pain

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ANALYSIS OF RATIONAL FOOD FOR CHILDREN WITH CHRONIC GASTROPATHOLOGY

p. 37-40

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Diseases of the digestive system in children occupy a leading place in the structure of the somatic pathology of childhood. Eating disorders, eating substandard food, overeating and inadequate chewing, eating spicy foods, eating a dry meal, as well as monotonous malnutrition the most important causes of acute and chronic diseases of the stomach and intestines. Therefore, the strategy of therapeutic measures in diseases of the digestive system is aimed at correcting metabolic disorders and adequately providing energy and constructive metabolism. The aim of study was to analyze the actual nutrition of children with chronic pathology of the upper gastrointestinal tract. Materials and methods. 102 patients with chronic pathology of the upper gastrointestinal tract, aged from 3 to 17 years,

were surveyed. A questionnaire was created for the survey, which included questions regarding ideas about proper nutrition, diet, the patient's usual menu and his dietary preferences. Patients were divided into 4 age groups.

Results. According to our research, patients suffering from diseases of the upper GI tract, in general, try to adhere to the diet. Differences were observed in compliance with the diet, the type of heat treatment of food and the preferred dishes in children in different age groups. Younger children and preschoolers are more likely to follow the doctor's recommendations on nutrition, while children in primary and high school often violate their diet or use improperly processed foods. The main violations in the diet occur due to the use of "fast food", sweets and bakery products in large quantities.

Conclusion. Given that most of the violations in the diet are in the primary and high school age groups, it was concluded that more attention should be paid to patients of this age and to explain to them about the need to comply with the recommendations of doctors on diet. Introduce measures to organize proper nutrition and control for this age group. The results of this study will serve as the basis for the development of motivating programs for patients with gastrointestinal diseases for following them recommendations on nutrition

Keywords: gastrointestinal tract diseases, nutrition, diet, questioning, schoolchildren, research, gastropathology

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BIOCHEMICAL PARAMETERS OF ORAL FLUID IN INFANTS WITH RESPIRATORY SYSTEM DISEASES (RSD)

p. 41-44

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This article presents the data of biochemical studies conducted in the oral liquid of infants' teeth with respiratory system diseases (RSD) with multiple caries compared to healthy children. The aim of the article is to determine the state of biochemical parameters of the oral fluid in young children with multiple lesions of temporary teeth and RSD.

Materials and methods. The survey involved 150 young children – from 0 to 3 years old. The main group was 95 children registered with the pediatrician for RSD from the first months of life and had more than 8. The control group – 55 children without general-somatic diseases, with up to 3 children who had traumatic lesions of the tooth-jaw and area needed to remove injured teeth. Biochemical analysis was carried out in the mixed oral fluid of children. The oral fluid was collected in the morning on an empty stomach into centrifuge tubes for 10 minutes. Supernatant was used for analysis. Determination of the activity of urease in the oral fluid was carried out with Nessler's reagent. Determination of lysozyme activity was carried out using the bacteriological method. The degree of dysbiosis in the cavity of the mouth was calculated according to the Levytsky method by the ratio of the specific activity of the urease in the oral liquid to the specific activity of lysozyme. The content of total calcium in the oral liquid was determined by color reaction with ortho-creosolfalein complex. The level of inorganic phosphates in the oral liquid was determined by the reaction of phosphorus with molybdic acid.

The results of the research show a decrease in the antimicrobial protection and mineralizing function of the oral fluid of children with caries. As a result, in the oral cavity of infants with RSD – the main group, the activity of urease and the degree of dysbiosis increased by two times in comparison with the control group, which indicates a significant degree of contamination with opportunistic pathogenic bacteria of the oral liquid of the studied children group.

Conclusions. According to the obtained indicators, reduced mineralization function of the oral liquid of the main observation group was revealed. The state of the oral cavity and multiple defeat by caries of children with RSD are grounded

Keywords: caries, temporary teeth, oral fluid, calcium, phosphorus, lysozyme, urease, mineralization

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