Management of Patients with Pulmonary Fibrosis

D.V. Bestaev, D.E. Karateev, E.L. Nasonov

1 I.M. Sechenov First Moscow State Medical University; 2 Institute of Rheumatology of RAMS, Russia

Rheumatoid arthritis (RA) is a chronic autoimmune systemic disease. Its systemic manifestations include interstitial lung lesions (ILL). According to morphological studies and X-ray computed tomography, the incidence of RA-associated ILL is 60-70% which gives reason to consider pulmonary fibrosis (PF) to be the main form of lung pathology in this disease. PF is a pathological process in the lungs characterized by high mortality rate and refractoriness to therapy. It is a heterogeneous group of disorders with progressive and irreversible destruction of lung architectonics due to scarification that in the end results in organ dysfunction, disturbed gaseous exchange and respiratory distress. Changes in the interstitial lung tissue resulting from local autoimmune rheumatoid inflammation develop by the same mechanisms that underlie idiopathic pulmonary fibrosis used as a model for classification, pathogenesis and treatment of RA-associated ILL. This review is focused on the therapeutic strategy for the management of PF in the context of consensus of the American Thoracic Society (ATS), European Respiratory Society (ERS), Japanese Respiratory Society (JRS) and Latin American Thoracic Association (ALAT, 2010/2011).

Keywords: rheumatoid arthritis; pulmonary fibrosis; interstitial lung lesions; consensus of the American Thoracic Society, European Respiratory Society, Japanese Respiratory Society and Latin American Thoracic Association.

Adaptation to Hypoxia and Ischemic Preconditioning: From Basic Research to Clinical Practice

N.P. Lyamina, E.S. Karpova, E.V. Kotelnikova

Saratov Research Institute of Cardiology, Russia

Experimental and clinical studies of the last ten years gave evidence of successful application of the protective effect of hypoxia in clinical practice. The view of hypoxia as an exclusively injurious factor has undergone significant changes. A promising approach to solving the problem of heart adaptation to ischemic injury is the use of cellular mechanisms realized through myocardial ischemic preconditioning (IP). Modern understanding of the mechanisms of IP protective effect takes into consideration the processes underlying the development of adaptation to hypoxia related to the changes in intracellular metabolism and accompanied by a stronger activation of the systems responsible for adaptation. All this provides a real opportunity for studying intracellular functional and metabolic mechanisms of adaptation to hypoxia and ischemia, formation of adaptive syndromes in clinical practice, development and implementation of new evidence-based medical technologies for diagnostics, prevention, and rehabilitative treatment of heart pathology.

Keywords: ischemic preconditioning, hypoxia, urgent adaptation, long-term adaptation, ischemia, heat shock proteins.

Five Year Dynamics of the Characteristics of Left Ventricular Diastolic Function in Patients with Arterial Hypertension in the Far North

I.L. Zaposochnaya, A.G. Avtandilov

1 Khanty-Mansiisk City Polyclinic, Nizhnevartovsk; 2 Russian Medical Academy of Post-Graduate Education, Moscow, Russia

The work was aimed to study five-year dynamics of characteristics of left ventricular diastolic function in patients with arterial hypertension (AH) under conditions of continuous shiftwork in the Far North. The first stage of the study (2003—2005) involved 95 patients including 53 day-shift ones and 42 subjects working alternately on day and night shifts. At the second stage (2007—2011), prospective observation of both groups using Doppler echocardiography was organized. The patients were divided into 2 subgroups (with treated and untreated AH). It was shown that AH patients in the Far North frequently suffer disturbances of left ventricular diastolic function manifest as increased contribution of left atrial systole to left ventricular filling. This phenomenon was more pronounced in nightshift workers.

Keywords: arterial hypertension; Far North; nightshifts; left ventricular diastolic function.
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CHANGES IN BIOCHEMICAL PARAMETERS OF BLOOD IN PATIENTS OPERATED FOR RHEUMATIC HEART FAILURE

O.V. Petrova, O.B. Gordeeva, S.A. Shashin, D.G. Tarasov
Federal Center of Cardiovascular Surgery, Astrakhan, Russia

We analysed changes of biochemical parameters of blood in patients treated for chronic rheumatic heart problems. It was shown that biochemical parameters of blood changed within 12 days after surgical intervention; the changes were especially pronounced on days 1-3 whereas normalization occurs by days 9-12. Pathogenetically sound time periods for changes of biochemical characteristics of blood serum were established in the patients treated for chronic rheumatic heart problems. On the one hand, it will allow to more accurately monitor the development of complications in the postoperative period and on the other hand to reduce expenses by decreasing the number of unnecessary analyses.

Key words: chronic rheumatic heart troubles; total protein; albumin; total bilirubin; enzyme; urea; creatinine.

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PECULIARITIES OF SERUM LIPID PROFILE IN PATIENTS WITH THYROID PATHOLOGY PROFESSIONALLY EXPOSED TO LOW-DOSE RADIATION

M.A. Vlasenko, V.S. Kulinich
Kharkov Medical Academy of Post-Graduate Education, Ukraine

The study included 90 patients with coronary heart disease (CHD) with NYHA FC I-II cardiac insufficiency professionally exposed to ionizing radiation (IR). 30 patients had isolated CHD, 30 presented with CHD and concomitant euthyroid autoimmune thyroiditis (AIT) and 30 with hypothyroid AIT. The control group consisted of 30 patients with the same pathologies unexposed to IR. Peculiarities of serum lipid profile in the patients of all groups were investigated. It was shown that professional exposure to low-dose radiation had no appreciable effect on the lipid spectrum in professionals with CHD even if it combines with AIT without hormonal disorders (euthyroidism). The only clinically significant effect of IR was hypothyroidism in patients with CHD and AIT. Even then, marked atherogenic changes were diagnosed only in those cases where adequate replacement therapy failed to totally compensate for hormonal insufficiency.

Key words: coronary heart disease; autoimmune thyroiditis; hypothyroidism; cholesterol; triglycerides; atherogenicity; ionizing radiation.

KM-1402-043

CLINICAL AND ULTRASOUND FEATURES OF GALLBLADDER PATHOLOGY IN PATIENTS WITH A WEIGHT DEFICIT

E.V. Anisimova, I.V. Kozlova, S.V. Volkov
V.I. Razumovsky Saratov State Medical University, Russia

We undertook analysis of clinical and instrumental features of gallbladder pathology in patients with a weight deficit for the elucidation of peculiarities of eating behavior, blood leptin level, and cytokine content of gastric biopsies. Underweight patients with inflammatory and dysfunctional diseases of gallbladder more frequently than others presented with abdominal pain syndrome. All patients enrolled in the study showed every type of eating disorders with the predominance of the limiting behavior. Weight deficit in patients with chronic cholecystitis was associated with hyperleptinemia and increased production of proinflammatory cytokines.

Key words: gallbladder pathology; eating behavior, trophologic insufficiency.

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CLINICAL AND MORPHOLOGICAL PECULIARITIES OF THE CLINICAL COURSE OF DUODENAL ULCER IN PATIENTS WITH BRONCHIAL ASTHMA

G.M. Chernyavskaya¹, G.V. Maksimenko², e.l. Beloborodova¹, e.A. Ustyuzhanina³, o.A. Denisova³
¹Siberian State Medical University, Tomsk; ²«Zdorovie» Medical Association, Tomsk; ³Tomsk Regional Clinical Hospital, Tomsk, Russia

This work was aimed to study clinical features of H.pylori-associated duodenal ulcer (DU) and elucidate morphological features of gastric mucosa (GM) in patients with bronchial asthma (BA). Simultaneous prospective examination of 118 patients aged 18—64 yr included clinical and endoscopic study of the gastroduodenal region with the assessment of gastroenterological symptoms and morphological analysis of GM and duodenal biopsies by histological, histochemical, and morphometric methods. It was shown that GM inflammation in patients with DU and BA is associated not only with H.pylori infection but also with the phase of BA. Structural changes of GM in the patients with DU and BA, unlike those with DU without BA, were apparent not only in the antrum but also in the fundus. Growing density of eosinophil, neutrophil and mast cell infiltration of fundal and antral GM as well as increased total number of cells in the antrum reflects active
immune-mediated inflammation in GM lamina propria. It is concluded that negative effect of uncontrolled BA on the clinical course of DU is not restricted to the association of DU exacerbation with the absence of BA control; it is also responsible for enhanced activity of gastritis. One of the possible factors determining combination of H.pylori-associated duodenal ulcer with BA is chronic hyperergic inflammation and marked structural changes in GM.

K e y w o r d s: duodenal ulcer; Helicobacter pylori infection; bronchial asthma.

KM-1402-052

LIPOPEROXIDATION, ANTIOXIDATIVE SYSTEM AND PLATELET COMPONENT OF HOMEOSTASIS IN PATIENTS WITH INFECTIOUS MONONUCLEOSIS

T.V. Chaban, N.A. Zhurakovskaya
Odessa National Medical University, Ukraine

The authors consider parameters of lipid peroxidation, antioxidative system and platelet component of homeostasis in patients with infectious mononucleosis

K e y w o r d s: infectious mononucleosis; lipid peroxidation; antioxidative system; platelet component of homeostasis.

KM-1402-057

NOVEL TRENDS IN PHARMACOTHERAPY OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE – PREVENTION OF EXACERBATIONS (FOCUS ON ROFLUMILAST)

A.I. Sinopalnikov
Russian Medical Academy of Post-Graduate Education, Moscow

This report summarizes results of controlled clinical studies designed to evaluate the effectiveness and safety of roflumilast, a phosphodiesterase-4 (PDE-4) inhibitor, in patients with COPD and to identify the main groups of patients to whom prescription of this medication is indicated and results in reduction of repeated exacerbations. Generally speaking, roflumilast therapy appears justified for patients with symptoms of chronic bronchitis, severe or very severe bronchial obstruction (forced expiratory volume below 50%) and/or frequent exacerbations of the disease (=>2/12 mo). Manifestations of symptomatic COPD (dyspnea, cough, expectoration, tolerance of physical exercises, etc.) are immaterial for taking decision to introduce roflumilast in combined therapy of CPD.

K e y w o r d s: roflumilast; chronic obstructive respiratory disease; clinical studies; phosphodiesterase-4 inhibitor.

KM-1402-065

A RARE CASE OF HYPOGLYCEMIA IN AN ELDERLY PATIENT WITH TYPE 2 DIABETES MELLITUS: MALIGNANT METASTASIZING INSULINOMA

V.I. Podzolkov1, N.A. Dragomiretskaya1, T.V. Koroleva1, N.N. Kavtaradze2, N.N. Yakovleva1, A.V. Podzolkov1
1I.M. Sechenov First Moscow State Medical University; 2City Clinical Hospital No 61, Moscow, Russia

The incidence of insulinoma, an insulin-producing tumour arising from pancreatic beta-cells and responsible for the development of fasting hypoglycemia, in the general population is 1-4 per1,000,000 yearly, mostly at the age of 25-55 yr. Malignization of this neoplasm occurs in 10-15% of the cases. One third of the tumours produce metastases. The most characteristic clinical manifestation of insulinoma is the Whipple’s triad, with episodes of fasting hypoglycemia (below 2.8 mmol/l) correctable by intravenous glucose injection or intake of sugar. The authors report a case of intravital diagnosis of malignant metastasizing insulinoma in a 82 year old woman with type 2 diabetes mellitus. A review of relevant literature is presented.

K e y w o r d s: insulinoma; malignant; diabetes mellitus; hypoglycemia.

KM-1402-071

SYMPHILIS IN A PATIENT WITH THE PRIMARY DIAGNOSIS OF INFECTIOUS MONONUCLEOSIS, CYTOMEGALOVIRUS AND HERPES INFECTION

B.P. Bogomolov, A.A. Sorokna, M.A. Koroleva
Central Clinical Hospital with Polyclinic, General Management Department of Presidential Administration, Moscow, Russia

The paper reports a case of fresh secondary syphilis affecting oral cavity and lips in a 25 year old woman. The primary diagnosis of infectious mononucleosis, cytomegalovirus and herpes infection proved erroneous. Retrospective differential diagnostics of infectious mononucleosis, cytomegalovirus and herpes infection from fresh secondary syphilis was performed. This case suggests the absence of vigilance with respect to venereal diseases in the medical personnel.

K e y w o r d s: syphilis; infectious mononucleosis; cytomegalovirus and herpes infection; diagnostics.