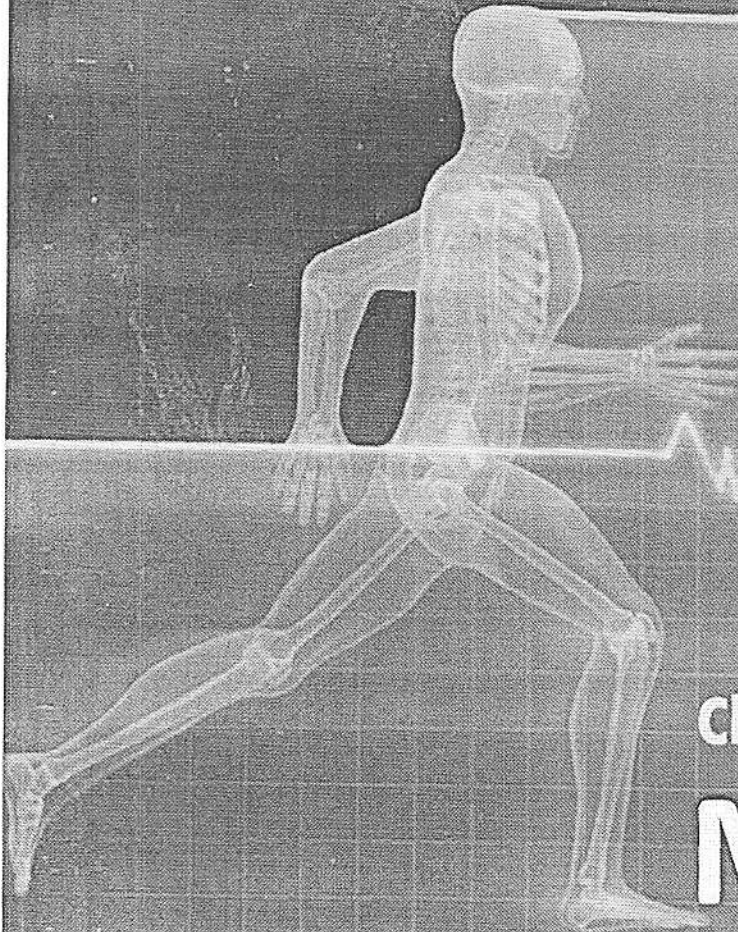


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Patients and methods:

To examine the role of circulating immune complexes (CIC) in infective endocarditis, we studied 51 patients with infective endocarditis (IE) for the presence of CIC, from the Institute of Cardiology from Chisinau, the Republic of Moldova. We have used ELISA method, as the elective method to identify the level of CIC. We also included in this study, the clinical examination of the patients both with normal and high levels of CIC.

Results: We identified 42 patients with a high-level of CIC and 9 patients with a normal value of CIC. Among the patients with high-level of CIC 35 (83.3%) had subacute endocarditis (SBE), and 7 (16.7%) had acute infective endocarditis (AIE). Systemic deposition of immune complexes results in the vasculitic lesions classically associated with IE: so 8 (19.04%) had peripheral lesions (Osler's nodes, petechiae, splinter hemorrhages et.al), and 31 (80.96%) had severe immunological manifestations such as: glomerulonephritis, mycotic aneurysms et.al.

Conclusion: These findings support the hypothesis that CIC may be important in the pathogenesis of peripheral and immunological lesions in infective endocarditis.

Key words: circulating immune complexes, infective endocarditis, clinical manifestations.

THE COURSE OF CORONARY HEART DISEASE AT DIFFERENT OXYGEN SATURATION

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Introduction: In industrialized countries, as well as in Ukraine, coronary heart disease (CHD) is one of the most common diseases, which ranks first place among causes of death. Equally important is the problem of chronic obstructive pulmonary diseases (COPD), which is the fourth most significant cause of death among Ukrainian population. The simultaneous presence of COPD and coronary artery disease leads to a syndrome of "mutual burden."

Aims: The aim of our research is to study CHD flow rate depending on the saturation of oxygen.

Methods and results: We examined 20 male patients aged from 47 to 72 years with coronary heart disease with postinfarction cardiosclerosis. The first group consisted of 12 patients with CHD without concomitant pulmonary disease, the second group - 8 patients with coronary heart disease with concomitant COPD. The level of oxygen saturation has been measured by pulse oximeter "UTAS oxy-201." In the first group, the average blood oxygen saturation is $97 \pm 0,18$, and patients of the second group - $93 \pm 0,39\%$. Among patients of the second group the majority of men was smokers and smoked about a pack of cigarettes every day. In this group of patients has been noticed heavier disease that manifested itself in deterioration of patients, frequent instability of angina. It is known that metabolic disturbances in cardiac muscle are dependent on many factors, including: arterial blood oxygen saturation, myocardial extraction of oxygen, coronary blood flow, in the cross diameter of coronary arteries, arterial tone, presence of atherosclerotic plaque and coronary vasoconstriction. This group has found a direct correlation between oxygen saturation and such data, as hemoglobin ($r = 0,51$; $p < 0,05$) and erythrocytes ($r = 0,34$; $p < 0,05$), which confirms the combined effect of coronary, ventilation and hemic hypoxia on the myocardium. Also, it has been revealed a tendency of sodium increase in plasma of second group patients ($r = 0,40$; $p < 0,05$), which may confirm renal dysfunction in these patients.

Conclusion: Reduced oxygen saturation in patients with coronary artery disease with concomitant COPD leads to increased myocardial ischemia with possible destabilization of angina.

Key words: angina, coronary vasoconstriction, coronary heart disease.

GOUT AND CARDIOVASCULAR RISK: A COHORT STUDY

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Introduction: Gout is an inflammatory arthritis characterized by self-limiting but excruciatingly painful acute attacks. The relation of gout and hyperuricaemia in cardiovascular diseases has been well documented. It is known, that the cardiovascular disorders are the main reason of death in patients suffering from gout, and also that high blood pressure and hypercholesterolaemia are the main pathogenic mechanism of metabolic changes confounding influence on cardiovascular risk in such patients.

Objective: Our aim was to assess the prevalence cardiovascular risk factors in gout patients.

Methods: A total of 102 consecutive adult male patients aged 41-72 years diagnosed with gout between 2010 and 2012 were enrolled in the study. Hyperuricemia was defined as serum uric ≥ 420 $\mu\text{mol/L}$. SCORE index was used for cardiovascular risk assessment, where low risk was defined when SCORE $< 1\%$, moderate risk was defined when $1\% \leq \text{SCORE} < 5\%$, high risk - $5\% \leq \text{SCORE} < 10\%$, and very high when SCORE $\geq 10\%$.

Results: All patients aged ≤ 45 years had low cardiovascular risk factors which did not depend on smoking status, blood pressure and cholesterol level. These results differed from those obtained in group aged from 46 to 59 years, where moderate and high cardiovascular risk was found in equal proportion among non-smokers. In the same age group, the smokers with hypertension had high and very high cardiovascular risk. Finally, the group of patients aged ≥ 60 years, 56% had very high cardiovascular risk, 34% had high risk, and only non-smokers (10%) had moderate cardiovascular risk.

Conclusions: Gout is associated with cardiovascular risk indicators. The prevalence of hypercholesterolaemia, hypertension and smoking increases with age and should be considered in the complex management of patients suffering of gout.

Key words: gout, cardiovascular risk, hypertension, hyperuricaemia, hypercholesterolaemia, SCORE index.

ARRHYTHMIAS IN RHEUMATIC HEART DISEASES PATIENTS

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Introduction: In recent decades the rheumatism is decreasing. The number of patients affected by rheumatic heart disease failure in the world reaches 15.6 million, and annually are registered about 470000 new cases. The rhythm disturbance is common in these patients. The atrial fibrillation is described in medical literature as the most frequent arrhythmia in patients with mitral valve involvement. In mitral stenosis the prevalence of atrial fibrillation increases with age. It is known that the atrial fibrillation is

impaired glucose homeostasis (IGH) and 31 (27.2%) patients with normal glucose regulation (NGR). Group assessment found that IGH meets in higher proportion among nondiabetic patients with MS (84.4%), than among nondiabetic patients without MS (29.7%).

Conclusions: Lipid metabolism disorders is more common in the group of hypertensive patients with MS, and were not altered by the presence of DM. DLP was mainly manifested by a significant reduction in HDL-C, high levels of TG, TC and LDL-C and increased TC/HDL-C ratio, which implies a more enhanced atherogenic activity in groups of patients with MS.

Glucose metabolism disorders are common in 72.8% of hypertensive patients and only 27.2% of them have normal glucose regulation. Comparison of nondiabetic groups revealed that IGH meets in higher proportion among nondiabetic patients with MS, than among nondiabetic patients without MS. Thus, hyperglycemia is highly associated with hypertension, particularly in patients with MS.

Keywords: Hypertension, metabolic syndrome, type 2 diabetes mellitus, DLP, hyperglycemia.

EPLERENONE IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION

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Introduction: Heart failure is a frequent complication after acute myocardial infarction and has a poor prognosis. The increasing of heart failure is about 1-2% per year. 50% of patients with heart failure after acute myocardial infarction, usually, live no more than 5 years.

The **purpose** of our research was to estimate treatment efficiency in patients with myocardial infarction which is complicated by heart failure, with using of the antagonist of aldosterone eplerenone on parameters of lipid and protein peroxidation.

Material and methods: We have investigated 37 patients (33 men and 4 women) with acute myocardial infarction in age from 39 to 68 years. A diagnosis was made according to the standards of European organization of cardiologists. All patients were divided into two groups.

The first group included 14 patients, who were prescribed standard therapy with verospiron in the dose 25 mg/day during 10 days, the second one – 13 patients who has got standard therapy with eplerenone in the dose 25 mg/day during 10 days. Control group included 10 patients healthy volunteers. We have measured concentration of malone aldehyde and oxidative modification of proteins.

Results: We have found an increasing of lipid and protein peroxidation processes in both groups before treatment. The parameters of malone aldehyde and oxidative modification of proteins were significantly higher than in control group. Differences in the indices of both groups were statistically not reliable.

Standard treatment led to diminishing of peroxidation processes– the patients of the first group had decreased indices of malone aldehyde and oxidative modification of proteins, however these indices were higher than in control group. The results of the second group were more expressed.

Conclusions: The conducted research testify that the using of the antagonist of aldosterone eplerenone in a complex treatment of patients with acute myocardial infarction, which is complicated by heart failure, lead to decreasing of processes of lipid and protein peroxidation.

Key words: myocardial infarction, heart failure, eplerenone, peroxidation.