

PECULIARITIES OF LIPID PROFILE IN PRIMARY GOUT PATIENTS OF VARIOUS AGE CATEGORIES

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Coronary heart disease - the leading cause of morbidity, disability and mortality in the adult population worldwide. Early diagnosis and prevention of cardiovascular atherosclerotic diseases is an actual problem of modern medicine. Risks management with the aim to reduce the mortality from arteriosclerosis, means not only their early identification but identification of the most significant factors in atherogenesis. One of these factors is hyperuricemia and connected with it gout. Gout - a chronic inflammatory disease that is associated with disorders of urine acid metabolism, increasing the number of serum uric acid, which is clinically characterized by recurrent attacks of acute gouty arthritis and the formation of tophi. Gout is one of the most common chronic diseases of the musculoskeletal system. Data on the prevalence of gout varies from 0.06 to 3% of the adult population; prevalence of hyperuricemia - from 2 to 20% of the adult population in Ukraine. There is evidence that over the last 10-20 years worldwide incidence of gout has increased by more than 2 times. Due to the widespread, progressive nature of the disease, a high frequency of disease complications, gout is an urgent medical and social problem in most countries of the world. High prevalence of gout and comorbid conditions at it explains the necessity of thorough studying the relationship of internal organ and metabolic imbalance. Simultaneous course of gout with coronary heart disease, diabetes, metabolic syndrome, insulin resistance, hypertension leads to increased cardiovascular risk in this group of patients and this is the cause of mortality. That is why timely diagnosis, early and rational treatment of underlying disease and related disorders metabolism has direct clinical and social significance.

The aim of our research - the study of the features of lipid profile in primary gout patients of different age categories.

Materials and methods. For the diagnosis of gout we used criteria SL Wallace et al. (1977) recommended by the American Rheumatism Association in 2001. The study excluded patients with a high risk of secondary gout: patients taking medications that increase uric acid levels, kidney failure, blood diseases, psoriasis, myxoedema, hyperparathyroidism, diabetes and so on. Laboratory examination included routine clinical analyzes, the level of uric acid was determined by biochemical method, the lipid profile was studied on the content of total cholesterol, low-density lipoprotein, triglycerides and high-density lipoprotein. Statistical processing of the results was carried out using factor and regression-correlation analysis program Statgraphics 3.0 in accordance with built-in algorithms.

Results and discussion. The study involved 33 patients (26 men and 7 women), average age was 51 ± 8 years. The average duration of the disease ranged from six months to 17 years. Patients had different clinical types and stages of gout: asymptomatic hyperuricemia (7 people), an acute attack of gout (3 people), intermittent gout (14), chronic gout (9 persons). The presence of tophi was found in 4 (12.1%) patients. Depending on the age all patients were divided into two groups: under 45 years and older than 45 years. Serum uric acid level ranged from 360 to 731 mmol/l. For detailed studying of biochemical parameters depending on the degree of hyperuricemia, all patients were divided into 2 groups: the first group (13 patients) - with hyperuricemia in excess of 600 mmol/l, the second group (20 people) - with hyperuricemia 360-600 mmol/l. In 57.6% of patients similar changes of lipid metabolism were identified: increased levels of total cholesterol, low-density lipoprotein cholesterol, hypertriglyceridemia and a slight decrease in high-density lipoprotein cholesterol. Intensity of these changes depended on the degree of hyperuricemia. Hypertriglyceridemia was significant in the first group of patients, whereas the decrease in high-density lipoprotein cholesterol was more significant in the second group of patients in the comparison of these parameters between the indices of the first and second groups. So increasing triglycerides of the first group of patients was within $2,63 \pm 0,10$ mmol/l, while in the second group of patients - $2,26 \pm 0,12$, a value of the control group was $1,68 \pm 0,10$ mmol/l. Indicator high-density lipoprotein cholesterol was reduced to $1,24 \pm 0,05$ mmol/l in the second group of patients, whereas it was in the first group $1,02 \pm 0,03$ mmol/L. Analyzing changes in the basic parameters of the lipid profile by age group, it should be noted that significant differences in values of total cholesterol, low-density lipoprotein cholesterol, high-density lipoprotein cholesterol and triglycerides have been identified, there is only a tendency to progression of dyslipidemia in the older age group.

Conclusions. The violation in primary gout patients of different age groups consisted of dyslipidemia due to increasing the level of total cholesterol, low-density lipoprotein cholesterol, triglycerides, and a slight decline in the level of high-density lipoprotein cholesterol. Changes in the studied parameters depended on the degree of hyperuricemia. More significant homeostasis changes were found at hyperuricemia exceeding 600 mmol/L. In moderate hyperuricemia atherogenic effect of uric acid was negligible. Dyslipidemia degree did not depend on the age of the patient.