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LIPID PROFILE IN PATIENTS WITH RHEUMATOID ARTHRITIS ON THE BACKGROUND OF BASIC TREATMENT

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Abstract. Rheumatoid arthritis (RA) is an autoimmune rheumatic disease of unknown etiology characterized by chronic erosive arthritis and systemic damage to internal organs. Currently, the question is being discussed that the leading cause of a decrease in life expectancy in RA is cardiovascular complications associated with atherosclerosis. Clinicians are aware that frequent manifestations of vascular accidents in patients with RA are associated with lipid metabolism disorders, but the mechanisms of development of these disorders have not been fully disclosed. In solving this problem, an important role is played by the complexity of approaches to diagnosis and treatment based on basic therapy in patients with RA. The use of satin against the background of basic therapy in patients with RA significantly accelerates the recovery time, and also contributes to the prevention of cardiovascular diseases (CVD).

Keywords: rheumatoid arthritis, atherosclerosis, dyslipidemia, diagnostics, treatment

Introduction. Rheumatoid arthritis refers to immune inflammatory rheumatic diseases of unknown etiology with the development of chronic erosive arthritis and systemic internal organ damage, leading to early disability, reduced duration and quality of life of patients. An integral part of the "Treatment to Achievement" strategy in the management of patients with RA is to achieve remission or at least low disease activity. However, in patients with RA treated with Non-steroidal anti-inflammatory drugs (BAIDs) and genetically engineered biologics, remission is achieved in only 20-40% of cases, so the majority of patients do not have optimal disease outcomes. In developed countries, the incidence of RA ranges from 0.5% to 1.8% (up to 5% in the elderly). Every year 5 to 50 people per 100,000 population develop RA. There are 5 times more women than men. Patients at the early stage of RA have changes in the blood lipid profile (LP) [1, 2, 3].

The main cause of death in patients with rheumatoid arthritis is the pathology of the cardiovascular system, in the development of which atherosclerosis and complications associated with its development play an important role. Currently, it has been proved that the mechanisms of atherosclerosis and rheumatoid arthritis are similar. There are a large number of works demonstrating the pathogenetic unity of these nosologies. Both these diseases have an immune inflammatory character, which mediates their close relationship and opens up new therapeutic possibilities for us. A number of studies have shown that the development and course of rheumatoid arthritis associated with changes in blood LP are characterized by increased atherogenicity. At the same time, adequate anti-inflammatory therapy leads not only

to a decrease in rheumatoid arthritis activity, but also to a decrease in the atherogenicity coefficient [4, 5, 6, 7].

Within 10 years since the diagnosis of RA, cardiovascular complications develop in one third of patients. Subclinical atherosclerosis in the form of intima-media complex thickening of the main arteries is detected in the majority of patients with rheumatoid arthritis, and in a quarter of patients atherosclerotic process is manifested clinically as CHD (angina pectoris, myocardial infarction) and peripheral atherosclerosis. RA is characterized by painless myocardial ischemia according to Holter ECG monitoring. Coronary artery study reveals, as a rule, multivessel lesion with relatively small number of critical stenosis. The state of coronary bed, pronounced inflammation processes in vascular wall and tendency to atherosclerotic plaques rupture on the background of increased thrombosis resemble those of diabetes mellitus [13].

There are different estimates of the role of rheumatoid arthritis activity for the prognosis of atherosclerotic vascular lesions. The presence of Anti-CCP or rheumatoid factor in the plasma of rheumatoid arthritis patients (seropositive arthritis) is clearly associated with an increased risk of vascular complications and plasma C-reactive protein concentrations, which have crucial prognostic value.

Goodson N., Dorum S. describe several interrelated causes leading to an increased risk of cardiovascular accidents associated with accelerated atherosclerotic vascular damage in Rheumatoid arthritis (RA). They include: accumulation of classical cardiovascular risk factors, side effects of drug therapy used to treat RA, insufficient attention to the need for prevention of cardiovascular complications in RA [8, 9, 10].

Blood LPs in patients with RA remain understudied. The detailed sub-fractional specters of total and modified LPs, which is especially important for autoimmune diseases, have not been studied at all. Therefore, the study of PL in patients with RA is of considerable interest and will allow to characterize more accurately the pathogenesis of both RA and the immunopathogenesis of atherosclerosis in general [11, 12].

Currently, the concept of early stage of RA is interpreted ambiguously. Different authors define it as time intervals ranging from several months to several years. Some specialists distinguish the first 3 months of the disease as a very early stage. The scientific research that is being conducted on the problem of early arthritis is primarily devoted to addressing two closely related issues. Firstly, the possibilities of establishing a reliable diagnosis are being studied, and secondly, approaches to prescribing the optimal method of treatment for this period of the disease are being worked out. In solving this problem, not the least role is played by the complexity of treatment approaches based on baseline therapy. The use of statins against the background of baseline therapy in RA patients significantly accelerates the recovery period, as well as contributes to the prevention of cardiovascular disease.

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The first studies on the use of statins in rheumatology were experimental in nature: collagen arthritis in mice was used as a classic model, the activity of which was significantly reduced by simvastatin [14]. The TARA (Trial of Atorvastatin in Rheumatoid Arthritis) study, which has already become classic, showed that atorvastatin at a dose of 40 mg/day significantly reduces C-reactive protein level and reliably (standard rheumatological indices were used) weakens the inflammatory process in the joints [15,17,18].

Thus, it is relevant to develop an algorithm for diagnostics of abnormal LP in RA patients, timely diagnostics of impaired LP leads to reduction of cardiovascular pathology in RA patients. Application of statins in complex therapy has a normalizing effect on clinical and laboratory parameters of the activity of the pathological process in RA patients.

Aim. To study lipid profile disorders in rheumatoid arthritis patients against the background of basic treatment.

Materials and methods of research. Sixty patients with a confirmed diagnosis of RA according to the APA criteria were examined. The age of the patients ranged from 18 to 76 years old. Most of the patients were women. Clinical examination of the patients included: careful examination of anamnesis, collection of complaints, clinical examination. Joint status was assessed in patients with RA: the number of swollen, painful joints with determination of Ritchie index, duration of morning stiffness, severity of functional insufficiency of joints. We assessed the severity of joint pain and general condition using visual analogue scale (VAS). RA activity was assessed using the total activity index according to DAS 28. Laboratory examination included clinical blood test, biochemical blood test, total cholesterol, triglycerides, HDL, LDL, Anti-CCP and C - reactive protein.

Patients received anti-rheumatic therapy, including nonsteroidal anti-inflammatory drugs (NSAIDs) diclofenac, melbek and basal agents; 40 patients received methotrexate (duration of use was 1 to 4 years) and 20 patients received lefno (duration of use was 1 to 3 years). The patients were divide into 3 groups: Group 1 (20 patients) - received methotrexate in a dosage of 7.5-15 mg per week, melbek 5-15 mg per day; Group 2 (20 patients) received NSAIDs + plaquenil in a dosage of 200-400 mg per day, Group 3 (20 patients) received BPVP+rozuvastatin (10-20 mg per day).

Results. The degree of severity of LP disorder in patients was compared with specific parameters of RA. High activity according to DAS 28, VAS, Anti-CCP positivity (27,5%), increased C-reactive protein and expressed LP disorder were detected in the 1st and 2nd group patients with RA. In the patients of the 2nd group high activity was found 2 times more often. The severity of LP disorder increased with the increase of RA severity. Grade III RA activity was observed in 19,7% of cases, LDL, ESR, C-reactive protein were correspondingly increased in these patients, Grade I RA activity was observed in 13,5% and LDL 1,5 times was

correspondingly lower. Comparison of laboratory data showed that impaired blood parameters of LP were found in younger and middle-aged patients (21.5%). These patients had 1.5 times higher level of LDL and triglycerides in the blood, and the level of HDL was lower respectively, which suggests that these patients develop atherosclerosis faster. In the dynamics after 6 months and a year, the patients were repeatedly subjected to laboratory and instrumental examination. Positive dynamics was found in the 3rd group of patients.

Conclusion. Diagnosis of lipid profile disorders and complex therapy of RA will improve the effectiveness of treatment, slow down the progression of erosive arthritis and delay the disability of patients, improving their quality of life. The use of statins against the background of basic therapy leads to a reduction in the risk of cardiovascular complications in RA patients.

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