International Journal of Early Childhood Special Education (INT-JECSE)
DOI: 10.9756/INT-JECSE/V14I1.382 ISSN: 1308-5581 Vol 14, Issue 01 2022 PP:3189-3191

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

Nargiza Abduazizova, Sevara Mukhammadieva, Elnora Djurayeva, Gulnoza Rakhmatullaeva
Tashkent Medical Academy

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 statins 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.

Rheumatoid arthritis (RA) refers to immune inflammatory rheumatic diseases of unknown etiology with the development of chronic erosive arthritis and systemic damage to internal organs, leading to early disability, reduced life expectancy and quality of life of patients. An integral part of the "Treat to target" strategy in the management of patients with RA is the achievement of remission or at least low disease activity. However, in RA patients treated with disease-modifying anti-inflammatory drugs (DMARDs) and genetically engineered biological agents, remission is achieved only in 20-40% of cases; therefore, the majority of patients do not have optimal disease outcomes. In developed countries, RA occurs from 0.5% to 1.8% (up to 5% in the elderly). Each year, RA affects between 5 and 50 people per 100,000 population. Among them, women are 5 times more than men. Patients at an early stage of RA have changes in the lipid profile (LP) of the blood [1, 2, 3].

The main cause of death in patients with RA is the pathology of the cardiovascular system, an important role in the development of which is played by atherosclerosis and complications associated with its development. At present, the similarity of the mechanisms of development of atherosclerosis and rheumatoid arthritis has been proven. There are a large number of works demonstrating the pathogenetic unity of these nosologies. Both of these diseases are immune-inflammatory in nature, 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 lipids are characterized by increased atherogenicity. At the same time, adequate anti-inflammatory therapy leads not only to a decrease in the activity of rheumatoid arthritis, but also to a decrease in the atherogenic 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 a thickening of the intimamedia complex of the main arteries is detected in most patients with rheumatoid arthritis, and in a quarter of patients the atherosclerotic process manifests itself clinically in the form of coronary artery disease (angina pectoris, myocardial infarction) and peripheral atherosclerosis. RA is characterized by painless myocardial ischemia according to ECG Holter monitoring. Examination of the coronary arteries reveals, as a rule, a multivessel lesion with a relatively small number of critical stenoses. The state of the coronary bed, pronounced processes of inflammation in the vascular wall and the tendency to rupture of atherosclerotic plaques against the background of increased thrombus formation resemble those changes in diabetes mellitus [13].

There are different assessments of the role of RA activity for the prediction of atherosclerotic vascular lesions. The presence of ACCP or rheumatoid factor in the blood plasma of patients with rheumatoid arthritis (seropositive arthritis) is clearly associated with an increased risk of vascular complications and concentration of C-reactive protein in plasma, which are of great prognostic value.

Goodson N., Dorum S. describe several interrelated reasons leading to an increased risk of cardiovascular accidents associated with accelerated atherosclerotic vascular damage in PA. These include: the accumulation of classic cardiovascular risk factors, side effects of drug therapy used to treat RA, insufficient attention to the need to prevent cardiovascular complications in RA [8, 9, 10].

Blood lipids in patients with RA remain insufficiently studied. Detailed subfraction spectra of common and modified drugs have not been studied at all, which is especially important for autoimmune diseases. Therefore, the study of LP in patients with RA is of considerable interest and will allow us to more accurately characterize the pathogenesis of both RA and the immune pathogenesis of atherosclerosis in general [11,12].

Currently, the concept of the early stage of RA is interpreted ambiguously. Different authors define it as time intervals from several months to several years. Some experts distinguish the first 3 months of the disease as a very early stage. Scientific research, which is carried out within the framework of the problem of early arthritis, is primarily devoted to solving 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 a given period of the disease are being worked out. In solving this problem, the complexity of treatment approaches based on basic therapy plays an important role. The use of statins against the background of basic therapy in patients with RA significantly accelerates the recovery time, and also contributes to the prevention of cardiovascular diseases.

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

Thus, it is important to develop an algorithm for diagnosing LA disorders in RA patients; timely diagnosis of LA disorders leads to a decrease in cardiovascular pathology in RA patients. The use of statins in complex therapy has a normalizing effect on the clinical and laboratory indicators of the activity of the pathological process in patients with RA.

Aim of the study. To study disorders of lipid profile in patients with RA on the background of basic treatment.

Materials and methods. 60 patients with a reliable diagnosis of RA according to ARA criteria were examined. The patients' age ranged from 18 to 76 years. Most of the patients were women. Clinical examination of patients included: a thorough study of anamnesis, collection of complaints, clinical examination. In patients with RA, the articular status was assessed: the number of swollen, painful joints with the determination of the Ritchie index, the duration of morning stiffness, the severity of functional insufficiency of the joints. The severity of pain in the joints and general condition were assessed using a visual analogue scale (VAS). RA activity was assessed using a total activity index according to DAS 28. The laboratory study included a clinical blood test, a biochemical blood test, total cholesterol, triglycerides, HDL, LDL, ACCP, C-reactive protein.

Patients underwent antirheumatic therapy, including non-steroidal anti-inflammatory drugs (NSAIDs) diclofenac, melbek and basic drugs, of which 40 patients received methotrexate (the duration of admission was from 1 year to 4 years), and lefno - 20 patients (the duration of admission ranged from 1 year to 4 years). 3 years). The patients were divided into 3 groups: the 1st group (20 patients) received methotrexate at a dosage of 7.5-15 mg per week, melbek 5-15 mg per day; 2nd group (20 patients) received NSAIDs + Plaquenil at a dosage of 200-400 mg per day, 3rd group (20 patients) received DMARDs + Rosuvastatin (10-20 mg per day).

Results. In patients, the degree of severity of LA impairment was compared with specific parameters of RA. High activity according to DAS 28, VAS, ACCP positivity (27.5%), an increase in C-reactive protein and a pronounced violation of LA were detected in patients of the 1st and 2nd groups with RA. In patients of the 2nd group, high activity occurred 2 times more often. With an increase in the severity of RA, the severity of LA impairment increased. III degree of RA activity was observed in 19.7% of cases, in these patients, respectively, increased LDL, ESR, C-reactive protein, I degree of RA activity was observed in 13.5% and LDL was 1.5 times lower, respectively. Comparison of laboratory data showed that a violation of blood lipid parameters occurred in younger and middle-aged people (21.5%). In these patients, there was a 1.5-fold increase in the level of LDL and triglycerides in the blood, and the level of HDL was lower, respectively, which indicates that atherosclerosis develops faster in these patients. In dynamics, after 6 months and a year, the patients underwent repeated laboratory and instrumental examination. Positive dynamics was observed in the 3rd group of patients.

Conclusion. Diagnosis of disorders of lipid profile and complex therapy of RA will increase 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 decrease in the risk of developing cardiovascular complications in patients with RA.

References

1. Abdullaev A.Kh., Alyavi B.A., Karimov M.M. Lipid metabolism disorders and functional state of the liver in patients with coronary heart disease after stenting. Cardiology of Uzbekistan // Scientific and Practical Journal. - 2018. - (48) No. 2. - S. 118-119.
2. Antipova V.N., Yashina M.N. Cardiovascular pathology in rheumatic diseases (literature review). - XLII Ogarev reading scientific. conf. natural Sciences. - 2014. - S. 158 - 164.
3. Eliseev M.S., Zhelyabina O.V., Chikina M.N. Effect of therapy on subclinical carotid atherosclerosis in patients with calcium pyrophosphate crystal deposition disease and osteoarthritis (pilot study). Scientific and practical rheumatology journal // - 2021. - Volume: 59 - No. 6. –S.708-714.
4. Nasonov E. L., Rybakova V. V., Avdeeva A. S., Dibrov D. A. Long-term results of intensive care for early rheumatoid arthritis at the onset of the disease (according to the Russian Registry OREL). Scientific and practical rheumatology journal // - 2021. - Volume: 59 - No. 3. -WITH. 269-274.

5. Nasonov E.L., Popkova T.V. Cardiovascular problems in rheumatology // Scientific and practical rheumatology. - 2004. -№ 4. -S. 4–9.
6. Masimmo F. Clinical guidelines. European Guidelines for the Prevention of Cardiovascular Diseases in Clinical Practice (Revised 2016) // Russian Journal of Cardiology. - 2017. - No. 6 146). -WITH. 7–85.
7. Sagitova E.R. The role of arterial hypertension in the formation of changes in the carotid zone in patients with rheumatoid arthritis // II All-Russian Congress of Russian Rheumatologists. - 2011. - S. 87 - No. 340.
8. Starodubova Yu.N., Osipova I.V. Atherosclerosis // Scientific and Practical Journal. Moscow. –2017. -T 13, -№3. – From 33-42.
9. Tutunov V. S., Zubareva M. Yu., Malyshev P. P., Kukharchuk V. V. Statins in rheumatology. -T 13, -№3. – From 43-45.
10. Boyer JF, Gourraud PA, Cantagrel A, Davignon JL, Constantin A. Traditional cardiovascular risk factors in rheumatoid arthritis: a meta-analysis. Joint Bone Spine. 2011;78(2):179–183. doi:10.1016/j.jbspin.2010.07.016.
11. Normohamed M., Dijkmans B. Dyslipidemia, statins and rheumatoid arthritis // Ann. Rheum. Dis. 2009.Vol. 68. P. 453–455.
12. Haye-Salinas MJ, Bertoli AM, Lema L, Saucedo C, Rosa J, Quintana R, et al. Prevalence of dyslipidemia and elevated cardiovascular risk in patients with rheumatoid arthritis. Medicina (B Aires) 2013;73(1):26–30. [PubMed] [Google Scholar].
13. Curtis JR, John A, Baser O. Dyslipidemia and changes in lipid profiles associated with rheumatoid arthritis and initiation of anti-tumor necrosis factor therapy. Arthritis Care Res. 2012;64(9):1282–1291. doi:10.1002/acr.21693. [PMC free article] [PubMed] [Google Scholar].
14. Leung B.P., Sattar N., Crilly A. et al. A novel anti-inflammatory role for simvastatin in inflammatory arthritis. J Immunol 2003; 170: 1524–1530.
15. McCarey D.W., McInnes I.B., Madhok R. et al. Trial of Atorvastatin in Rheumatoid Arthritis (TARA): double-blind, randomized placebo-controlled trial. Lancet 2004;363:2015–2021.