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INDICATORS OF TOTAL IMMUNOGLOBULINS IN PATIENTS WITH
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Abstract: *The work included a comprehensive laboratory examination of patients with different stages of knee osteoarthritis. The patterns of metabolic disorders in patients with osteoarthritis in the form of activation of the prooxidant system and inhibition of the enzymatic link of antioxidant protection were revealed. It was shown that the degree of oxidative stress clearly correlates with the severity of clinical manifestations of osteoarthritis. The most clinically significant blood parameters for laboratory diagnostics of this pathology were identified, such as aliphatic aldehyde groups of oxidized proteins and paraoxanase activity.*

Key words: *osteoarthritis, prooxidant system, antioxidant system, oxidative modification of proteins, free radical oxidation of lipids, superoxide dismutase, catalase, myeloperoxidase, paraoxanase.*

Relevance. Although the development of arthrotic arthritis (AA) does not affect life prognosis, this disease is one of the main causes of premature disability and disability, second only to coronary heart disease in this regard, and the most common indication for joint replacement. However, the impact of the state of local immunity on the course and outcome of AA remains undisclosed.

The human antioxidant system (AOS) is a system that blocks the formation of highly active free radicals, i.e. reactive oxygen species. Under normal physiological conditions, small amounts of oxygen are constantly converted into superoxide anions, hydrogen peroxide and hydroxyl radicals. Excessive production of these radicals is a factor in damage, the compensatory mechanism of which is the antioxidant system. Determining the general antioxidant status helps the clinician to more deeply assess the condition of the body, observed and its potential protective reserves in certain physiological and pathological conditions (1,2,3,4,5,6,7). The importance of studying the pathogenesis of osteoarthritis (OA) is due to the prevalence of the disease - epidemiological studies show that 10-12% of the population of all ages suffers from it,

including 50% of people over 60 years old (1,8,9,10,11,12,13,14,15). According to WHO forecasts, OA will become the fourth leading cause of disability in women and the eighth in men in the next 10-15 years [1,16,17,18,19]. It is believed that the universal mechanism of OA pathogenesis is the imbalance between the processes of synthesis and degradation of cartilage components. The key role in this is given, firstly, to the disruption of the functioning of chondrocytes, which begin to produce "inferior" low-molecular matrix proteins, and, secondly, to biochemical disorders, changes in the activity of enzymes in the articular tissue.

The mechanism of formation and development of these leading links in the pathogenesis of OA is still not fully understood. At the same time, specific OA processes have been studied much better than non-specific reactions, and it is the latter that are primarily protective, formed by evolution. The development of OA is based on such typical pathological processes as tissue degeneration, inflammation and stress, the body's systemic response to which includes the activation of free radical destabilization of cells, both in the area of local damage and far beyond it. At the same time, the balance of the prooxidant (POS) and antioxidant (AOS) systems is a prerequisite for health, an indicator of the adaptive and protective capabilities of the body.

The aim was to study the systemic and local (in synovial fluid) status of immunoglobulins in patients with arthrotic arthritis.

Materials and methods 96 patients with arthrotic arthritis who underwent inpatient treatment at the clinic of the National Center for Rehabilitation and Prosthetics of Persons with Disabilities under the National Agency for Social Protection under the President of the Republic of Uzbekistan were examined.

Results and conclusion. Analysis of the obtained indicators showed that the level of total immunoglobulins A, M, G in the blood serum of AA patients did not have significant differences from the indicators of the control group and even tended to decrease slightly.

It is noteworthy that the level of total immunoglobulins A, M, G in the synovial fluid of AA patients was higher compared to the control group. And if the indicators of total immunoglobulins A, M, G in the synovial fluid of young AA patients had only an unreliable tendency to increase relatively the indicators of the control group, in the group of middle-aged patients, these differences were significant and the level of total IgA was higher than the control indicators in 1,36 times, total IgM 1.97 times, and total IgG 2.41 times.

Conclusions: Thus, the results of our studies showed that humoral immunoreactivity is more pronounced at the local level, especially in patients with arthrotic arthritis of middle age, apparently causing a more protracted and recurrent course of the disease.

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