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THE IMPACT OF COMPLEX TREATMENT ON THE COURSE OF OSTEOARTHRITIS

The relevance of the problem of osteoarthritis (OA) on a global scale is due to its significant prevalence, which increases with age. This disease is associated with a deterioration in the quality of life, as well as economic losses. OA holds the sad lead in the world in terms of the duration of temporary and permanent disability. Along with the deterioration of the quality of life in OA, its progression at different rates and damage to the articular cartilage are observed.

One of the most pressing medical problems of humanity is the obesity epidemic, which has affected almost all countries in the world and leads to a progressive increase in the risk of cardiovascular diseases, cancer, and increased mortality.

Excess body weight contributes to an increase in mechanical stress on articular cartilage, which leads to the predominance of catabolic processes over anabolic processes and, as a result, to the loss of articular cartilage. Pain syndrome

in OA encourages the patient to reduce mobility, which entails a decrease in energy expenditure, which, in turn, contributes to the accumulation of fat - and the pathological circle closes, that is, a self-sustaining system of disease progression is created.

However, excess body weight does not just mechanically contribute to the degradation of articular cartilage. Adipose tissue is an active endocrine organ. Which secretes a large number of biologically active substances – adipokines. Adipokines are involved in all types of metabolism. The effect of some of them, in particular leptin, on articular cartilage metabolism and the course of the disease in patients with OA is currently being studied. The pro-inflammatory state of the immune system in patients with OA contributes to the increased frequency of exacerbations, the occurrence of episodes of synovitis, and therefore the acceleration of the progression of joint damage.

Patients with OA must constantly take 2-3 drugs, or even more. It is known that the simultaneous use of three or more drugs dramatically increases the risk of their unpredictable and adverse interactions. Therefore, the search for effective pathogenetic means that would not only reduce clinical manifestations but also have a favorable effect on the prognosis of patients is urgent.

Physical therapy (PT) is a key component of non-drug treatment for OA. Regular exercise helps:

- strengthen the muscles around the affected joint, which improves its stability;
- reducing pain and improving the functional state of the joint. According to the recommendations, individually selected exercise therapy programs are effective in improving the condition of patients with OA.

Physiotherapy measures used in OA include:

- thermal procedures: paraffin therapy, ozokeritotherapy;
- electrotherapy: electrophoresis with anti-inflammatory drugs;
- ultrasound therapy: to reduce pain and inflammation.

These methods help improve blood circulation, reduce inflammation and pain in affected joints. Occupational therapy aims to teach patients how to adapt to daily activities in order to reduce the load on affected joints and maintain their functionality. Informing patients about the nature of the disease, the importance of physical activity, weight control, and the use of assistive devices (orthoses, canes, etc.) is an integral part of a comprehensive approach to the treatment of OA.

Involving a team of specialists — doctors, physical therapists, occupational therapists, nutritionists, and psychologists — allows us to develop an individual rehabilitation plan that takes into account all aspects of the patient's life.

For patients with OA and cardiovascular diseases, in case of increased BMI or obesity, weight loss measures are a priority. Proper correction of body weight will reduce the intensity of pain in the affected joints (knee), help slow down the

progression of OA, and also significantly reduce the risk of developing cardiovascular complications. Regular physical therapy (PT) and proper exercise regimen are a mandatory component of non-drug therapy for OA. The positive effect of PT on reducing joint pain in OA has been established in a number of studies. The PT complex should be selected individually, taking into account the existing cardiovascular pathology and its severity.