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EFFICIENCY OF «SUSTAVIN» USE ON THE BACKGROUND OF STANDARD TREATMENT IN PATIENTS WITH EARLY OSTEOARTHRITIS

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Introduction. This research contains the results of a clinical study of treatment pointed at lowering serum cartilage oligomeric matrix protein (COMP) level that is elevated in patients with early and pre-radiological knee osteoarthritis. Based on the clinical and functional state of the joint observed in patients with OA, and the results obtained using the COMP dynamics, the method for treatment with using "Sustavin" was developed.

Materials and methods. The research included 50 patients aged 41-65 years ingrade 1-2 OA of the knee joint without marked synovitis, as well as 10 healthy volunteers. **The control group (n = 24)** - followed the recommendations for living a healthy lifestyle, weight and nutrition correction, performed a complex of physiotherapy exercises, and also NSAIDS (nimesulide 100 mg twice a day for 14 days, thereafter as needed). **The main group (n = 26)** - followed the recommendations for living a healthy lifestyle, weight and nutrition correction, performed a complex of physiotherapy exercises, and also NSAIDS (nimesulide 100 mg twice a day for 14 days, thereafter as needed) and also took Sustavin twice a day per os in the morning in the evening for 3 months. The level of COMP was studied by enzyme-linked immune sorbent assay (ELISA, Russia).

Results and their discussion. In the course of the study, it was noted that in the group with the use Sustavin there were improvements in VAS, and pain during active movements significantly decreased:in the main group during the study, there was a considerable positive dynamics ($p < 0.05$) of indicators within the VAS compared with the control group (30.2 ± 1.1) In turn, there was also a significant improvement in Lequesne index in patients of the main group in comparison with the control one. Thus, in the control group, the Lequesne index decreased on average to 6.5 ± 0.5, while in the main one this indicator was 3.5 ± 0.3 points. This indicates a significant decrease in pain syndrome in patients during treatment with Sustavin.
In a comparative assessment of the indicators of the levels of COMP, in patients of both study groups, a decrease in the levels of COMP was revealed, which indicated a decrease in the degree of cartilage degradation as a result of treatment. However, it is important to note that the degree of reduction in COMP was significantly better in patients of the main group who also took Sustavin. Thus, the level of COMP decreased to 1.37 ± 0.36 of μg / ml from the initial value, whereas this indicator in the control group was 1.48 ± 0.47 μg / ml. According to the literature, the decrease in the level of COMP inthe blood may be due to the fact that the root of harpagophytum and white willow contain substances that have anti-inflammatory, analgesic (inhibition of COX-2, iNOS), chondroprotective (decrease in mediators of cartilage destruction: TNFα, IL-1β , IL-6, MMPs, NO, elastase) and antioxidant (increased activity of superoxide dismutase, catalase, glutathione peroxidase, capture of superoxide and peroxyl radicals) effect on the cartilage of the joint. ESR decreased to 11.3 ± 0.6 mm / h, while in the control group this indicator reached 16 ± 0.3 mm / h. At the same time, it can be noted that in the patients of the main group, the level of CRP was significantly reduced in comparison with the control group (6.3 ± 0.8 and 10.8 ± 2.1, respectively)

Conclusion. Our results show that Sustavin, against the background of standard treatment, has a positive effect on joints in knee OA, improving their functionality. The decrease in serum COMP levels in patients treated with Sustavin probably reflects changes in matrix metabolism because COMP is a marker of disease progression at an early grade of knee OA. This represents the general interest in assessing the effectiveness of the drug on increased synovial tissue metabolism in OA, therefore, this requires further research to study the levels of COMP within its potential as a predictor of cartilage degradation.