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FEATURES OF PHYSICAL REHABILITATION IN THE COMPLEX THERAPY OF OSTEOARTHROSIS

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Abstract:

Osteoarthrosis (OA) is the most common form of joint damage and occupies a leading position among all diseases of the musculoskeletal system.

At the present stage, the treatment of patients with knee osteoarthritis joints is a complex process that includes both medication and non-medication methods of exposure. IN in recent ears, interest in complex methods of influence in the treatment of patients with this pathology. The incidence of osteoarthritis increases sharply with age, reaching a third of the population in old and senile age.

Joint osteoarthrosis refers to degenerative diseases. From this it follows that its main cause is a violation of metabolic processes in the body and a deterioration in the nutrition of the articular tissues, which leads to their degeneration, delayed regeneration and progressive aging (destruction).

Keywords: osteoarthrosis, arthrosis deformans, knee pain, physical rehabilitation, exercise, remedial gymnastics.

RELEVANCE: An increase in the life expectancy of the world's population, physical inactivity and an increase in the number of overweight people lead to an increase in the number of patients suffering from diseases of the musculoskeletal system, including osteoarthritis. Considering the lack of specific pharmacological treatment of osteoarthritis, as well as the growing number of patients with this pathology, it became necessary to search for proven technologies of physical and rehabilitation medicine.

PURPOSE OF THE STUDY: to study the effectiveness of therapeutic exercises in the complex treatment of osteoarthrosis of the knee joints..

MATERIAL AND RESEARCH METHODS. Examined 80 patients (28 men, 52 women) aged 46 to 75 ears, the average age was (58.3 ± 0.8 ears) OA of the knee joints. 20 patients (25%) were aged 41 to 50 ears, 35 patients (44%) - 51-60 ears old, 20 patients (25%) - 61-70 ears old, 5 patients (6%) - over 70 ears old.

Complaints of patients about morning stiffness, restriction of movement in the joints, pain in the joints that appear or intensify after physical exertion, when climbing stairs or standing for a long time and decreasing at rest (96%), pain on palpation of joints and periarticular tissues (67%), limitation of active movements in the joints (92%), joint pain at rest, crunching on movement (34%).

Goniometric data confirm the limitation of movement in the hip joints, the level of flexion is reduced by 20 degrees to the right and 10 degrees to the left; in the knee - on the right by 20 and on the left - by 10 degrees, with restriction of extension; in the ankle joints by 20 and 15 degrees. The intensity of pain in the knee joints during walking was assessed by the VAS (Visual Analog scale) (from 0 to 100 mm).

All patients received similar medication and an exercise program to strengthen the muscles surrounding the knee, performed exercises to strengthen the muscles of the thigh and lower leg, exercises aimed at increasing the range of motion in the knee joint, exercises to maintain and develop mobility in the joints [2].

Physical activity and physical activity increased gradually. During the training, fast and abrupt movements in the knee joints were avoided. They very carefully flexed and unbent the diseased joints, while closely monitoring the patient's condition.

Therapeutic exercises were carried out for 20 minutes individually or by a small-group method. Against the background of general toning and breathing exercises, patients performed isotonic (active) exercises for the distal parts of the limb (toes, movements in the ankle joint in various planes), isometric tension of the gluteal muscles, followed by relaxation of this muscle group. Patients performed exercises only in the position of unloading the joint (lying on their back, side, abdomen, standing on all fours). The exercises were performed slowly, smoothly, gradually increasing the range of motion. Patients performed light, swinging movements in the affected joint until painful. Isometric training of weakened muscle groups was carried out in series of 5-10 tensions with an exposure of up to 5-7 seconds and relaxation of the contracted muscle groups. Facilitated dynamic exercises were performed,

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swinging movements in the affected joint with an amplitude to pain in combination with dynamic exercises in adjacent joints [3].

Physical exercise was combined with massage (light stroking, rubbing the anterior thigh muscle group, muscle group-hip flexor). Passive exercise is not recommended as any violent movement can cause pain and muscle tension. The affected joint was not massaged during the exacerbation. After physical therapy, the patients performed positional treatment, that is, the limb was fixed for 10-15 minutes in the position of the maximum achieved range of motion. At the end of the complex, patients performed exercises on a bicycle ergometer with a power of 25 to 75 WT [3].The study was carried out over four weeks and was assessed over time (before and after treatment) using the WOMAC functional index, a four-component visual analogue pain rating scale, and a knee joint rating scale.

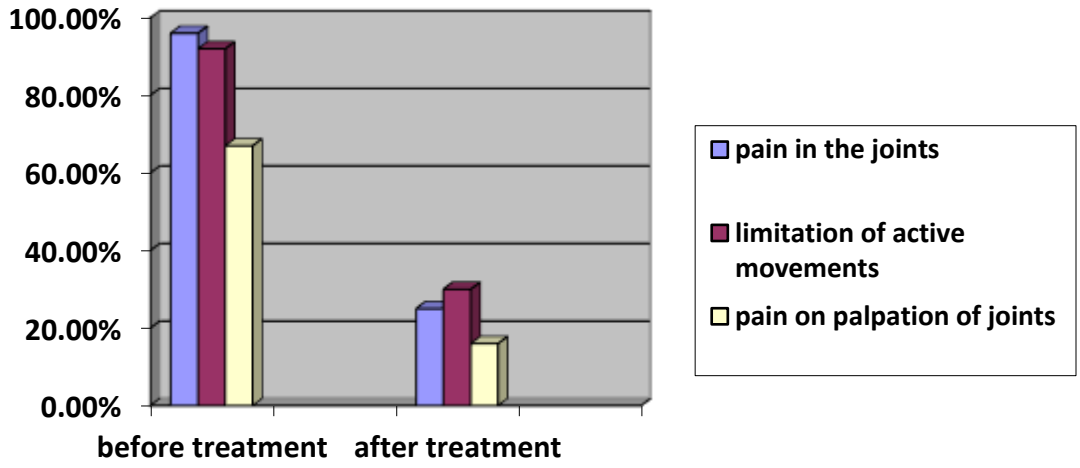
RESEARCH RESULTS. The results of the study showed that in patients of the first group who, along with traditional drug therapy, received additional physical therapy procedures, an improvement was noted, by the end of the course of treatment, relief of pain at rest was possible in 82% of patients, stiffness decreased in 86.8% of patients, functional activity increased in 88.5%. A statistically significant improvement was observed after the course of treatment in the groups of therapeutic exercises. The normalized value of the WOMAC index increased in this group by 21.6 points (from 47.2 5 ± 8.8 to 68.8 5 ± 9.4). The indicators of the second comparison group did not significantly change during treatment, p> 0.05: there was an improvement by 12.1 points (from 50.1 ± 6.4 to 62.2 ± 7.1) [4].

The indicators of the knee joint assessment scale increased in the first group by 14.8 points (from 53.4 ± 7.8 to 68.2 ± 8.6). In the comparison group, there was also an improvement by 13.4 (from 51.1 ± 7.4 to 64.5 ± 8.1), but it was not statistically significant, p> 0.05. The functional state of the joints according to the WOMAC index scales before the use of therapeutic exercises was 50.0 ± 0.5 mm. For the symptoms "going up or going down the stairs", "bending to the floor", "hard work at home", the severity of pain was the highest - from 10 to 100 mm (86.4 ± 2.8 mm). Under the influence of the course effect of therapeutic exercises, a statistically significant positive dynamics of pain reduction was obtained (according to VAS). The positive effect of all indicators was noted: a significant improvement in the clinical indicators of pain syndrome according to VAS, functional tests, indicators of the WOMAC questionnaire scales.

In general, on all 17 points of the WOMAC scale, patients of both groups noted a significant (p <0.05) improvement in the mobility of the affected joints. Thus, in patients of the first group, there was a decrease in pain according to the VAS at rest, movement, functional tests improved (walking in a straight line for 30 m, on stairs, flexion of the knee joint).

There was also a positive dynamics of indicators of the general functional state of the joints according to goniometry data, tests of walking in a straight line and on stairs, and the WOMAC index scales [5].

The dynamics of the main indicators in patients with osteoarthrosis are shown in the diagram.



Picture1. Dynamics of the main indicators in patients with osteoarthrosis.

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It was found that under the influence of the developed methods of therapeutic exercises in combination with drugs, the locomotor function of the affected knee joints in patients with OA significantly improves, which is confirmed by an increase in the range of motion in the knee joint according to goniometry data, as well as data from the criteria of daily activity of the WOMAC index.

Based on the results of the studies, pathogenetically substantiated methods of rehabilitation of patients have been developed for the first time, including the use of standard drug treatment in combination with exercise therapy, massage, which made it possible to achieve a significant decrease in the activity of inflammatory and destructive processes in the joints, helped to expand the functional capabilities of the musculoskeletal system, and prevent the progression of the disease.

CONCLUSIONS: thus, gymnastics is very important in osteoarthrosis. It allows you to maintain joint mobility for a long time. Treatment of patients with deforming osteoarthritis is not only a medical, but also an important social task [7].

Physical activity helps to strengthen the cardiovascular system and bone tissue, and also gives a positive emotional charge. The main methods used in the process of physical rehabilitation for osteoarthrosis of the knee joint are the correct movement regimen, remedial gymnastics, medications, chondroprotectors, diet, physiotherapy treatment, physiotherapy exercises and massage. A particularly noticeable effect in the treatment of osteoarthrosis can be achieved using a set of measures. When prescribing therapeutic exercises, such indicators are taken into account as: the patient's age, the cause of arthrosis, the general condition of the body, the specific stage of the disease, the usual level of physical activity, the presence of concomitant diseases.

Therapeutic exercises have a positive effect on the affected joints of the patient, in order to preserve their mobility and prevent subsequent functional impairment, strengthens the muscles, increases the patient's activity, justifies him for self-service, carries out rehabilitation and renewal of physical ability to work, enhances blood circulation, does not allow development muscle atrophy.

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