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### **MODERN METHODS OF REHABILITATION FOR OSTEOARTHRITIS OF THE KNEE JOINT**

The knee joint (KJ) is a part of the human body that is more often than others injured and subjected to excessive loads, causing, as a result, long-term pain and loss of work capacity. Knee pain is a common symptom of osteoarthritis (OA), a disease that can affect people of all ages, from athletes to the elderly. The causes of OA pain are varied and include both injuries and degenerative changes in the joints[3,4].

CS pain in OA can be caused by a variety of causes, including mechanical damage to the knees, overloading, degenerative changes, as well as genetic and anatomical diseases. Below are the most common of them:

1) mechanical damage - bruises, muscle strains, ruptures of ligaments or patella can lead to severe pain in the knee;

2) overload - people who perform heavy physical work or athletes often feel pain as a result of overload;

3) degenerative changes are a common cause of knee pain, especially in the elderly. This process involves the gradual wear and tear of articular cartilage, which leads to discomfort and limitation of mobility;

4) genetic and anatomical conditions - valgus, varus or various joint pathologies negatively affect the functioning of the knees.

Arthroscopy makes it possible to save the patient from many problems related to the knee, without resorting to open surgical intervention [5,6].

Rehabilitation is an important element in the treatment of CS dysfunction. Effective CS rehabilitation plays a key role in treating and improving the quality of life of patients struggling with this disease. The duration and complexity of the rehabilitation period depend on the nature of the damage and the scope of the operation. It includes a variety of techniques and procedures to help restore full joint function, relieve pain, and improve mobility [2,4].

The main methods of rehabilitation include:

- manual therapy – soft tissue massage combined with joint mobilization helps reduce pain and improve mobility. The doctor performs precise movements that increase flexibility and improve blood circulation in the knee area;

- rehabilitation exercises - a properly selected set of exercises (squats, leg extensions) is important for the strength and stability of the CS;

- electrotherapy - the use of electric current to stimulate muscles and tissues helps reduce pain and accelerates the healing process. This treatment can be used as part of a comprehensive rehabilitation plan;

- cryotherapy – cold compresses or cryochambers help to reduce swelling and inflammation in CS.

During CS rehabilitation, you should avoid lifting heavy objects and excessive stress on the CS. Using your hands to help you stand up or sit down can reduce pressure on your knees [1,2].

It is also advisable to wear comfortable shoes with flat soles that help stabilize the foot and knee. However, athletes should avoid intense exercise that puts stress on the CS, especially during rehabilitation and recovery.

The goal of treatment and recovery in OA CS is to return a person to his level of activity and quality of life, the same as it was before the injury. The prognosis for recovery is always individual and depends on the type of injury, as well as on the performance of physical exercises. Depending on the type of damage, rehabilitation can take both several weeks and several months. Conservative treatment of CS pathologies includes two main methods: drug and physiotherapeutic. Additional methods of therapy include physical

therapy and orthopedic support[2].

Pharmacopuncture is the introduction of drugs either directly into the joint cavity or into the peri-articular tissues. A wide range of medicinal products are used, which have an anti-inflammatory, analgesic and stimulating effect on the synthesis of cartilage tissue. The use of physical therapy in case of CS pathologies allows normalization of innervation, blood circulation, and lymph outflow. This helps to strengthen the peri-articular muscles, relieve pain, and increase the range of motion in the affected joint.

**Conclusions:**

1. Physical therapy classes for patients with OA of the CS help to reduce the intensity of symptoms.

2. In order to improve the efficiency of the recovery of patients with OA of the CS with comorbid pathology, it is advisable to apply complex treatment and rehabilitation measures with the involvement of physical therapy.

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