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PATELLOFEMORAL TENDONITIS: AN ISSUE WITH MANY COMPLICATIONS AND AN OUTLOOK TOWARDS ITS LEADING CAUSES

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Introduction. According to WHO, about 365 million people suffer from knee joint problems, which is 65% more than in the past two decade. Tendonitis is an inflammation of the tendon, more often at the place where the muscle attaches to the bone. It is accompanied by inflammation of all elements of the joint, causing pain, swelling and, as a result, limited mobility, makes it difficult to perform active movements, which in turn further reduces its function. This pathological process develops more often in large joints. The cause of tendonitis is chronic overexertion, micro-traumatization – for example, sports activities. In this regard, inflammation of the articulation of the femur and patella (patellofemoral joint) is typical for athletes and people with high physical activity, and the clinical picture is called patellofemoral pain syndrome (PFPS). Often the cause of inflammation is anatomical or biomechanical abnormalities, muscle weakness, imbalance or dysfunction. The disease does not allow you to continue sports training and requires appropriate treatment, including rehabilitation. The use of conventional painkillers and anti-inflammatory drugs is ineffective, since it affects only the symptoms, without affecting the cause of the disease. Limitation of mobility (orthoses) provide relief of the joint, reduce pain, on the other hand, cause chronisation of the process, which further destroys the joint.

Aim: to determine an effective combination of medical rehabilitation tools, to develop a methodology for the use of corrective exercises.

Materials and methods. The study involved 9 patients; medical students involved in football (3 men); volleyball (2 women, 1 man); athletic gymnastics on weight training equipment (3 men). All complained of pain in the knee joint, swelling, and restricted movement. It was found: longitudinal flatfoot and hallux valgus in 2 people; hyperlordosis of the lumbar spine – 2; deformities of the lower extremities: X-shaped – 3; O-shaped – 2. All participants had hypotrophy of the quadriceps femoris and a decrease in hip volume relative to a healthy limb of 2.8 ± 1.2 cm. The examination data (CT, MRI) indicated the presence of soft tissue changes (anterior cruciate (1), lateral and medial menisci (2), collateral lateral and medial ligaments (6), which unites them in PFPS. Deforming arthrosis of the knee joint was not diagnosed in any of the 9 patients. An individual rehabilitation program was compiled for each patient, consisting of complexes of corrective exercises selected depending on pathobiomechanical patterns and aimed at correction: flat feet, tone of the quadriceps femoris, gluteal muscles, posture. Physiotherapy techniques: shock wave therapy (SWT), magnetic therapy (MT), transcutaneous electrical stimulation (TENS), phonophoresis with hydrocortisone.

Result and Discussion. Pain relief was detected with MT 12 days, SWT 4 procedures every 3 days, including Phonophoresis with hydrocortisone every day and TENS twice a day, totally lasting for up to 12 ± 2.5 days. It was noted that the effectiveness of exercises is higher, with their directed effect on muscle tone – in patients with impaired posture, curvature smoothness to normal was achieved. The stabilization of the knee joint during extension indicates an increase in the tone of the quadriceps femoris muscle (subjectively, patients indicated relief while climbing stairs), objectively, the hip volume increased by 2.5 ± 0.9 cm. The least corrective effect was observed in patients with hallux valgus. They were offered the use of orthopaedic insoles.

Conclusion: the complex effect of restorative treatment in a short time contributed to the relief of pain and biomechanical correction of musculoskeletal segments.