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TREATMENT AND EVALUATION OF THE EFFECTIVENESS OF OSTEOARTHROSIS WITH ELECTROPHORESIS

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Resume: This article provides information on the effectiveness of physiotherapeutic procedures, in particular, the use of caripaine by the electrophoresis method in the treatment of osteoarthrosis.

Keywords: osteoarthrosis, knee joint, chondroitin sulfate, rehabilitation, osteophyte, synovitis, disability, quality of life.

Relevance: According to modern concepts, arthrosis belongs to a group of non - identical diseases of different etiologies, which are characterized by a chronic course of biological, morphological and clinical changes, and the pathological process affects all components of the joint, mainly the lower, subchondral part of the bone, synovial membrane, connective apparatus, joint capsule, articular muscles in combination with degenerative-dystrophic processes[1, 5, 6].

Risk factors for the origin of osteoarthrosis include: 1) genetic: type 2 hereditary collagen disorder, type 2 collagen mutation, other hereditary bone and joint pathologies, human ethnicity; 2) non-genetic: old age, overweight, menopause, developmental disorders (hip dysplasia) or acquired diseases of bones and joints, surgical interventions on joints (meniscus removal, etc.); 3) environmental factors: work-related physical activity, various joint trauma, active rest, and (or) sports[5, 9, 12].the connective apparatus, the joint capsule, acts in conjunction with degenerative-dystrophic processes in the articular muscles[1, 5, 6].

Among such diseases, Gonarthrosis occurs in every 5 people on Earth, in women its frequency is 2 times higher than in men [9]. At the first stage of the disease, periodic pain is characterized by low intensity, especially after sleep and prolonged sitting - "initial" pain occurs. In the second stage, pain is added after long standing and walking on the legs. Restriction of movements in the joints, hypotrophy of the muscles increases, while walking, the patient carefully presses on the leg due to pain. In the third stage, bends develop on the legs (X-shaped or o-shaped). Deformed joints bulge as a result of edema. As a result of this, the actions will be significantly limited or completely lost [4, 9].

Low quality of life indicators have been found in osteoarthrosis patients, especially those with gonoarthrosis, which is associated with chronic, progressive course of the disease. Given the age of patients, progressive joint damage, we can say that the disease negatively affects the most important functions of the patient - physical, psychological, social activity. The study of quality of life makes it possible to monitor the condition of patients, assess the dynamics and effectiveness of treatment. Measurement scales, in particular the WOMAC index and the leken index, are used to assess the specific signs and limitations of knee joint function[4, 7, 12, 13].

Judging by the data in the literature, arthrosis is not effective enough, despite complex treatment with non-steroidal anti-inflammatory drugs as well as chondroprotectors. Therefore, depending on the pathogenetic joint of arthrosis, it is necessary to study complex restorative treatments for this disease.

The purpose of the work: The main goal of our study is to study the dynamics of knee joint function in patients with Gonarthrosis, mainly in the first and second stages, to assess the effectiveness of treatment of the drug "Karipain" using clinical tests and the WOMAC index using electrophoresis.

Materials and methods: The BRH was conducted in the Departments of physiotherapy and Traumatology in 60 patients (36 people in Group 1; 24 people in Group 2), divided into two groups of 35 to 74 years, the first and second stages of osteoarthrosis in Kellgren-Lawrence. Group 1 patients received electrophoresis with "Caripaine" and Group 2 patients received lidocaine. The effectiveness of the treatment was assessed by changes in the WOMAC index, functional Lechena index, vash-based pain, i.e. during walking, in a calm state, goniometry data, 30 m straight line walking, as well as time to climb stairs.

The leken index for gonarthrosis, as well as the WOMAC index, with clinical examination to assess the effectiveness of treatment, was taken into account the movement of 0 to 100 mm on a one-stop scale, the time of ascent of 10 steps (SEC) from the stairs and the time of walking in a straight line at a distance of 30 m (sec) The size of the knee joints was determined using a measuring tape in the middle third of the joint, the range of motion in the knee joints according to goniometry, assessed in the swellings of the joints (0 to 2 points), the pain observed when palpated along the direction of the joint cracks was also found in scores(0 to 2 points).

Depending on the treatment carried out, patients were divided into 2 groups: the first (n = 36 people), the second (n = 24 people), compared in terms of age and gender composition, duration of the disease, radiological changes in joints and functional disorders. The first, that is, electrophoresis treatment for patients of the main group, was carried out with the drug "Karipain". 1 vial of the drug was dissolved in a 10 ml saline solution before treatment and placed on a filter paper placed on top of the electrode of the positive pole and placed in the knee joint pain area. On top of the electrode of the negative pole, however, a filter containing a 2.4% eufillin preparation was placed on paper and placed parallel to the first electrode.Electrophoresis treatment for patients in the second group was placed at the positive pole with a 2% lidocaine drug, and the negative pole parallel to the positive pole with no preparation. Treatments for patients in both groups were set at 15-20 minutes, frequency at 100 Hz, with a value of 12-15 ma depending on the patient's feelings. It is necessary to smoothly increase the flow, relying only on the patient's feelings. The purpose of preventing skin burnsthat should be placed tightly on the patient's body. Electrophoresis treatment was carried out daily and regularly. The number of courses was carried out depending on the severity of the disease (most often 2-3 courses). One course of treatment was 10-12 treatments.

Statistical analysis was carried out using a computer program. The St'yudent t-criterion was evaluated.

Results obtained. The clinical characteristics of patients are presented in Table 1, from the data in which it follows that the majority of patients (69.4%) make up women over 45 years of age. The largest number of patients is the group between the ages of 55 and 64. The median age was 54.5. The duration of the disease was from 6 months to 15 years, the average duration of attacks was 5.9 ± 1.1 weeks. In most patients, 44.5%, Stage II was found on radiography (Kellgren-Lawrence).

Clinical description of patients

Table 1

Clinical data	Main group		Comparison group	
	N	%	N	%
Amount of patient	36	100	24	100
Gender male female	 11 25	 30,6 69,4	 7 17	 29,2 70,8
Age 35-44 45-54 55-64 65-74	 1 12 16 7	 2,8 33,3 44,5 19,4	 1 10 8 5	 4,2 41,7 33,3 20,8
Duration of gonoarthrosis Up to 1 year Up to 1-5 years Up to 6-10 years More than 10 years	 6 21 7 2	 16,7 58,3 19,4 5,6	 3 9 5 7	 12,5 37,5 20,8 29,2
X-RAY I II III	 7 16 13	 19,4 44,5 36,1	 9 13 2	 37,5 54,2 8,3
Functional disorders in the joint, degree I II III	 7 23 6	 19,4 63,9 16,7	 7 14 3	 29,2 58,3 12,5

Functional disorders in the joint, on the other hand, accounted for 63.9% of Iidaraja.Clinical signs of synovitis and tendinitis were found in 47 patients (78.3%).

Patients showed limited range of motion in affected knee joints (84%).The pain syndrome at the time of movement on the Vash scale is between 40 and 100 mm (82.24 ± 2.58 mm and 61.8 ± 2.4 mm) in primary and comparative groups, respectively. The values of the Leken functional index, on the other hand, ranged from 4 to 16 points, 15.1 ± 0.6 and 15.2 ± 0.8.

In patients with I hernia of the prostate, clinical and radiological studies were not conducted, however, in patients with I hernia, an increased severity was observed ($p<0.01$).Since the 1990s, patients with guru have experienced a decrease in the frequency and severity of clinical symptoms of the disease, but a significant decrease in the severity of guru. For example, in patients with hernia who had a decrease in blood pressure on the Richter scale, functional tests showed improvement (up to 30 mg / day), a decrease in blood pressure on the Richter scale ($p<0.01$), a decrease in blood pressure on the Richter scale ($P < 0.01$), a decrease in blood pressure on the scale Richter ($P < 0.01$), decrease in blood pressure on the Richter scale ($P < 0.01$), decrease in blood pressure on the Richter scale ($P < 0.01$), decrease in blood pressure on the Richter scale ($P < 0.01$).), II guru said that patients to the same extent as they suffered to the same extent as those who suffered to the same extent as those who suffered to the same extent as those who suffered to the same extent as those who suffered to the same extent as those who suffered to the same extent.

In both groups,after two and three months, there was a significant positive increase in dynamics, but in Group I, improvements in all clinical indicators occurred faster. Thus, electrophoresis treatment with the drug karipain was observed at 8 weeks of treatment with a significant decrease in pain, an improvement in the leken index,functional tests.Even after 12-13 weeks, this trend was maintained. In iiguruh, a significant improvement in most clinical tests was delayed from 8-10 weeks. A statistically significant improvement in the functional leken index was noted after 12 weeks of treatment. ($p<0.01$). As a result of these treatments, in 87% and 74% of patients at rest after 12 weeks, during movement - 82% and 70% - complete loss of bile, joint swelling-in 94% and 75% of patients (in groups I and II, respectively) returned.Laboratory indicators improved in these patients.

The functional position of the knee joint on the WOMAC index scale before treatment did not differ significantly in either group: Group I - 52.2 ± 0.6 mm; Group II - 46.0 ± 0.5. Electrophoresis treatment with the drug" Karipain " looked at electrophoresis with the drug lidocaine, which led to a significant improvement in the function of the drug, the effect of the treatment was manifested after 4 weeks, after 8 and 12 weeks, the effectiveness was observed to increase even more.For signs of" climbing or falling stairs"," bending to the floor"," heavy work at home", the severity of pain was the highest - from 60 to 100 mm.

Patients moving at a checkpoint require constant movement and restoration of balance, in particular, a car brake or clutch, wheel tilt (57 mm ± 72 mm), (groups with a cross section of 54.3 ± 0.5 mm and 51.6 ± 0.6 mm). In general, in each group of patients, the WOMAC scale was performed 3 times on a scale of 17 points with a lesion noted during the movement of the trigeminal drainage ($p<0.05$), as a result of 8-week treatment of 2 groups of patients compared with 1 group, the patient in Samara is in beraetganliga. While Muslim does not have any effect on the legs.

Conclusion: The treatment of osteoarthrosis is an urgent problem among diseases of the musculoskeletal system. To treat this disease, nosteroid anti-inflammatory drugs are often used, which, together with pain relief and improving joint mobility, have side effects, first of all, on the gastrointestinal tract, especially in elderly patients. In this regard, a pathogenetically based method of treatment with high efficiency, which has practically no side effects, selectively affects precisely the structure of the spine, was chosen for the disease. This type of therapy allows you to reduce pain syndrome, return the patient's mobility, that is, the usual lifestyle, improve its quality. The study of the effectiveness of various methods of treating OA involves the use of subjective assessments of the patient as a criterion, according to which the dynamics of pain Hiss was determined.The general effect on the pathological process was determined. In our study, data was obtained confirming the effectiveness of local exposure to the drug karipain to electrophoresis treatment of joints in terms of pain syndrome and its effect on the leken index. The drug has a positive effect on the activity of movement, the state of muscle tone, the altered structure of bone tissue. The use of "Karipain" through electrophoresis is considered effective, since this treatment made it possible to bring the active components of the drug directly to the depth of the affected tissues.

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