

## CONSERVATIVE TREATMENT OF THE GONARTHROSIS (ARTHROSIS OF THE KNEE) WITH THE PRESENCE OF BAKER'S CYST

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Baker cysts usually occur in almost any form of pathology of the knee joint. More often — with arthritis, for example, rheumatoid arthritis, or damage to the cartilage, especially the medial meniscus. Baker's cysts arise between the sinews of the medial head of the gastrocnemius muscle and the semi-membranous muscles. They are located behind the medial femoral condyle. Most Baker cysts support this direct communication with the synovial cavity of the knee. With the aim of conservative treatment of patients with post-traumatic gonarthrosis and the presence of Baker's cyst, we apply complex conservative treatment with sonographic control of the results of treatment (in some cases, with an intermediate control). Gonarthrosis is the leader in the incidence of the disease among articular arthrosis. There are different ways to treat gonarthrosis. We managed to develop a new modification of the method of treatment of gonarthrosis. In carrying out this method, a subcutaneous administration of the ozone-oxygen mixture and subsequent electrical stimulation of the site of introduction of the ozone-oxygen mixture with an electric current of 50 Hz, a current of up to 7–10 mA, an impulse duration of 0.3 ms and a drug interstitial electrophoresis of the drug Caripain, duration of the procedure 12–15 minutes daily, for a course of treatment of 12–15 procedures. The application of this method leads to a reduction and arrest of pain syndrome in patients with knee osteoarthritis, a decrease in the inflammatory reaction of the knee structures, restoration of the knee joint function. 397 patients were treated. The stable clinical effect of this method, obtained in the treatment of patients with osteoarthritis of the knee joint, makes it possible to recommend this method for a wide clinical application.

To assess the presence and severity of pathology at the knee joint level, a comprehensive diagnostic approach, including X-ray and ultrasound, is actively used in the sanatorium. In a number of cases, to clarify the nature of the pathological process, patients were referred for study to medical and preventive medical institutions in Barnaul for CT or magnetic resonance imaging of the knee joint. To control the results of treatment, the method of ultrasound diagnostics of the pathology of the knee joint



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After the completion of the course of treatment, patients noted that the pains significantly decreased or completely passed. In the ultrasound examination of the knee joints, a subcutaneous bag of the gastrocnemius muscle (Baker's cyst) was determined. Typical sonographic signs: the presence of an anechoic neck (canal) of the podsubchozhal bag (between the medial head of the gastrocnemius muscle and the tendon of the semi-membranous muscle), an anechogenic bag. Localization: the medial edge of the popliteal fossa (more often), the middle part of the popliteal fossa. In 39 patients (23.8%) Baker's bilateral cyst was determined, in 125 patients — one-sided, in 78 patients (62.4%) — left-sided, in 47 patients (37.6%) — right-sided. Cyst volume from 0.7 ml to 21.3 ml. Aspiration of cysts was not performed. As a result of complex conservative treatment, when performing a control study, a decrease in the volume of cysts was noted in 143 patients (87.2%). In 21 patients, the volume of cysts did not change objectively. Our control studies were performed 7–16 days after the start of therapy. In a number of cases (29 patients — 17.6%), as a result of the control studies, the disappearance of cysts was noted. The initial volume of cysts in these cases was from 0.7 to 5.1 mL.

Thus, conservative complex treatment with the use of interstitial electrostimulation and subcutaneous administration of the ozone-oxygen mixture can successfully be used to treat posttraumatic gonarthrosis with the presence of Baker's cyst. The method of ultrasound diagnosis can objectively assess the presence of a cyst, accurately determine the amount of content, provide the possibility of establishing a dynamic control of the results of treatment.