CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES

Volume: 04 Issue: 03 | May-Jun 2023 ISSN: 2660-4159

http://cajmns.centralasianstudies.org

Use of Radio-Frequency Neuroablation in Pain Syndrome in Patients with Gonarthrisis

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Received 2nd Apr 2023,
Accepted 19th May 2023,
Online 22th May 2023

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Abstract: 32 patients were analyzed in our examinations, patients were treated on an outpatient basis in 2017-2022. 9.10 ± 0.04 cm before treatment of VAS in patients 2 weeks before RChNA, and after 1, 3, 6, 12 months. After 1 month, RChNA was 3.96 ± 0.28 cm ($r \leq 0.05$) in patients with reduced pain in the VASh group. This condition was maintained for up to 3 months. The positive result in this group is 4.33 ± 0.29 cm; maintained, in 6 months – 4.46 ± 0.32 cm; and in 12 months - 5.01 ± 0.34 cm ($r \leq 0.05$) indicator.

After RChNA treatment, the functional state of the affected joint was analyzed according to the WOMAC questionnaire. (changes higher than 15 points): indicators after 2 weeks 52.60 ± 1.60 points after 1 month 1 – 48.80 ± 2.01, in 3 months – 51.29 ± 1.99, in 6 months – 54.18 ± 2.32, after 1 year – 55.48 ± 2.60 points. We compared our analysis of results with other authors' randomized controlled trials.

The method of radiofrequency neuroablation of the articular nerve branches of the knee joint is considered one of the effective and safe methods. Although the style is not universal, it has found its place in the gonalgia synrom.

Key words: deforming arthrosis, knee joint, radiofrequency neuroablation, pain syndrome.

INTRODUCTION

Osteoarthrosis is a common polyethiological degenerative - dystrophic disorder, mainly due to the fact that chronic course leads to increased pain from time to time under the influence of external factors.

The relevance of the treatment of such patients is due to the fact that it is not only common and in the long term it is not uncommon to take a cocktail, but also to the fact that until now the etiopathogenesis of cassalik has not been clearly studied, its prevention, clarification of the methods of treatment. Osteoarthrosis not only harms the hyaline tuber, but also, Progressive, has a ham effect on bone tissue, causing chondroosephytes to form, synovial hyperplasia, and muscle atrophy. These changes are characterized by a combined addition to local licking and a noseservative response of the perepheric nervous system.

Clinically, patients complain of pain, swelling, crepitation in the joint, and limited xaracate amplitude in the knee joint.

Refractory pain in the result of osteoarthrosis of the knee joint causes difficulty in adequate treatment, and as a result, 35-42%(avt) of patients are sent for surgical treatment. Although endoprotezing the knee joint leads to quick and effective results, but it is advisable to do it later in patients. This in turn is due to the limited service life of the implant and the need for revision operas. Separately, it should be taken into account that it is not necessary to carry out the practice of endoprotezing in young patients, it is advisable to apply methods that restore knee joint function to patients. Thus these patients benefit greatly from minimally invasive methods, namely radio frequency ablation. In this research, we studied the results of radiofrequency neuroablation in the treatment of surinkal pain in the knee joints, as well as the effectiveness of this method in gonarthrosis of Level III-IV in the short and long term.

Research objective. Evaluation of the effectiveness of treatment with radichastotal neuroablation method in gonalgia with osteoarthrosis pain syndrome.

- **Materials and methods.** Based on our examinations, we analyzed the data of 32 patients (38 joints). Patients were observed in the period 2017-2022 with an average age of 61.7 ± 4.3 years (ages 45 to 79). Patients who applied to the hospital were 4 patients under the age of 50, 8 patients between the ages of 50 and 59, 12 patients between 60 and 69, and 8 patients over the age of 70. All patients received clinical and radiological examinations. Of the main complaints, this is severe pain in the knee joint. We switched the case to radiological evaluation under the Kellgren-Lawrence classification. From the results of the Tests, 3-stage Gonarthrosis was observed in 11(34%) patients, while 21(66%) patients observed 4-stage Gonarthrosis.
- The following examination measures were introduced to patients who came to the clinic:
- Presence of pain syndrome (gonalgia) vash scale above 5cm against the background of osteoarthrosis of the knee joint;
- Non-efficacy of conservative treatments;
- Systematic desertion of nesteroids for the purpose of pain relief;
- Norms beyond checks
- The presence of a systemic chronic inflammatory process;
- Local septic inflammation in the mucosal sac;
- Coagulopathy;

• We used the visual analog scale (vash) to assess the number and quality of pain syndrome.We are looking for a functional limitation of knee bugimini using the WOMAC suravlari.

Method of radio frequency ablation. In the case where the patient lies with his back, the primary stage is performed denervation action on the lateral and medial genicular nerves of the knee bugimini yukori. With the help of a sanograph, lateral and medial conic vein-Neves are found, and in the utratovous Doppler mode, an artery is found in the G20 cannula 10 mm active part, which is approximated to the artery, and under fluoroscopic control, the needle is checked in two projections on an X-ray field. An electrode is sent to the cannula in a flyuroscopic inspection control where the needle is upright. The sensitivity is then given first with a power of 50Gs 0.7 V for the purpose of detecting stimulation, as positive, when the pain syndrome increases and paresthesia is observed in the knee joint socket.Then, the destructive stimulation was carried out at a power of 2 Hz and 0.9 V, mainly in order to determine if the central nerve fiber around the electrode was not damaged. Anesthesia is performed locally with 2ml 1% lidocaine.

At the second skirt, the inferior medial articular nerve branch is denervated. Using Sonography, paski is identified as a medial stem-nerve tangle, to which the cannula is approached. Under X-ray control, sensitivity and kharakat stimulation are transferred in 2 projections, then after 2-3 minutes under anesthetic with a solution of 2 ml of 1% lidocaine, radio frequency neuroablation of the paski medial articular nerve branch is carried out at a temperature of 90 degrees up to 90 Seconds of vaccine.

Image.1 Patient R. 52 years old using the RCHNA method in the right knee joint

Clinical example: patient R. 52 years old, nafakahoor, came to complain of pain in his right knee Sox and a limitation of his character. For 5 years since Anamnesis, severe pain in the right knee joint has been present. The patient was treated several times with a conservative, physio-functional treatment, but due to the lack of a positive result, the patient was recommended for operative treatment. Due to the presence of contraindications to surgery in the patient, RCHNA treatment is recommended for the right knee joint, and this method is carried out. The patient was responded to the hospital after 1 day of observation and no complications were observed. Observations show; on the first day after RCHNA, vash is 3 points, after 1 month – 2 points, after 6 months-3 points, after 12 months-kein is 4 points. After RCHNA (about 2 years), the pain decreased. (Fig. 1) Patients were diagnosed in 1, 3, 6 and 12 months, 2 weeks after the rchna was passed.

Results: in the stages of primary examination, patients who had been prescribed nesteroid and anti-inflammatory drugs accounted for 89%.

All patients have had radichastotal neuroablation of the articular nerve branches of the knee joint.

The dynamics of subjective pain Hiss was checked on vash before and after treatment. Image.1

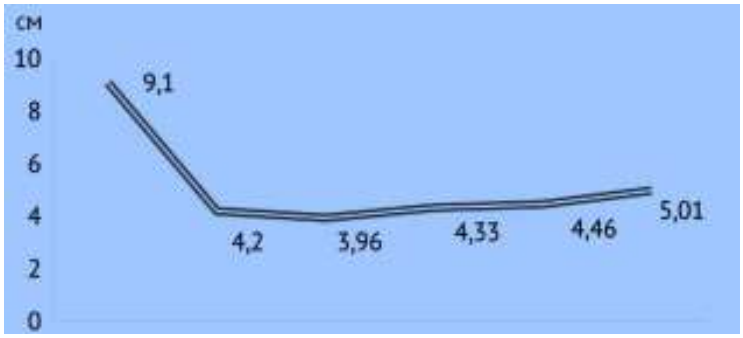

Image.2 subjective manifestations of pain before and after treatment

The average level of pain syndrome according to the results of primary examinations is 9.10± 0.04 CM before treatment on the vash scale. The reduction of the associated pain syndrome was rated 3 points and above. Pain syndrome in patients after 1 month of RCHNA was greatly reduced by vash at 3.96±0.28 CM ($p<0.05$), after 3 months a positive result showed a level of 4.33±0.29 CM, after 6 months -4.46±0.32 CM, and after 12 months -5.01±0.34 CM ($p<0.05$).

Thus, satisfactory results were observed for patients in the Guru, where RCHNA was carried out, up to a year.

The assessment of the functional effect of pain on foreign activity was carried out on the basis of the WOMAC survey, from which the following results were determined:

In patients, there is an average of 76.88±0.71 points for impaired function in the joints affected by examinations.

The functional conditions in the joint improved greatly after the treatment of RCHNA within the average gurucheswomacwhich showed significantly decreased (with variation above 15 points). After 2 weeks, the average in Guruh is 52.60±1.60 points, after 1 month 48.80±2.01, after 3 months -51.29±1.99, after 6 months -54.18 ± 2.32, after 1 year -55.48±2.60 points.

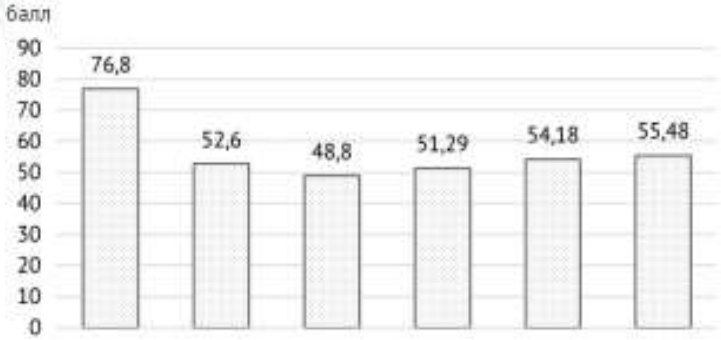

Image.3 evaluation of functionality in the stages of examination of patients with osteoarthrosis of the knee joint according to the WOMAC survey

Positive results in dynamics observed up to 1 year after RSNA treatment are evidence of an alternative to this method, and use in gonarthrosis Level III-IV is targeted.

The correlation relationship between the Vash vawomac index and the VASH vawomac index was not in primary checks($r = 0.04$). Strong contact was detected 14 days after observation periods ($r = 0.8$, $p < 0.05$), and the same pattern was observed at 1.2.3.6 and 12 months $R = 0.79$ ($p < 0.05$); $R = 0.88$ ($p < 0.05$); $R = 0.92$ ($p < 0.05$); $R = 0.97$ ($p < 0.05$). Thus, RCHNA improves the patient's chayotid activity and expands the activity of the bladder.

Complications were not observed in this procedure, where a lot of complications were carried out. In one patient examined, an infectious inflammation was observed, an abscess condition was formed, drainage was laid and the antimicrobial drug was eliminated with the drug.

Randomization control checks of the effectiveness of the rchna method is based on the approximation of our results.

Choi, along with co-founders, say that the control over vash ($p < 0.001$) decreased pain by using radiosachtotal neuroablation in chronic osteartrose of the knee joint.

In another group of randomization, patients who used Total endoprotesis with Taverner co-founders underwent pulsed radiofrequency neuroablation from the skin, and as a result, a VASH transceiver indicates a decrease in pain from the ratio to the previous one. The authors note that the pain from the ratio of 4 weeks to 1 Week on vash is much reduced.

Together with the co-founders of Alcidi, they incessantly pass an anti-pain ablation treatment and, as a result, the pain decreases to 60/100 If up to 40/100 after treatment. Functional results were studied on the functional marker of the disorder according to the index Lecene, up to the treatment index Lecene 11/2 after the treatment, this condition was observed for 30 days.

Multi-term pain relief leads to a decrease in pain within 12. Of the 20 Tests, sakkista claims to have greatly reduced pain in the knee joint from multimodal radiofrequency ablation. In two cases of examinations, the analgesic effect was maintained for up to 3 months.

In conclusion, the effect of rchna on the aricular branches of the knee joint NER is a safe and effective treatment method, and the degenerative knee joint is giving positive results against the background of gonalgia. But this technique is not an unversal treatment, since it cannot stop the prgressive course of the underlying disorder, but it gives positive results when using the disease in combination with other orthopedic treatment treatments.

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