MERALGIA PARAESTHETIC TREATMENT WITH PULSED RADIOFREQUENCY

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After undergoing spinal surgery, a patient developed pain in the left thigh with characteristics compatible with meralgia paresthetica, with no response to medical treatment. The lateral femoral cutaneous nerve was infiltrated with temporary improvement in symptoms, so it was decided to ablate it using pulsed radiofrequency, after which the pain subsided immediately.

Six months after the intervention, the patient reported slight discomfort, having recovered practically all previous activity.

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INTRODUCTION

Meralgia paresthetica is a sensitive clinical syndrome produced by an alteration in the lateral femoral cutaneous nerve.
consisting of paresthesias, pain or insensitivity of the territory innervated by said nerve (anterior and lateral aspect of the thigh). Because it is a purely sensitive nerve, it does not associate alterations
motor.

Its diagnosis is mainly clinical and treatment is conservative, including lifestyle changes such as weight loss, not using material that compresses the waist (such as belts and tight pants) as well as pharmacological treatment based on analgesia and/or or antineuropathic medication.

However, a certain percentage of patients with meralgia paresthetica have pain that is resistant to medical treatment. In
these cases have been considered
more aggressive treatments (including injection of local anesthetics, corticosteroids, and surgical decompression)(1).

Radiofrequency-mediated and ultrasound-guided neurolysis may be a valid treatment with minimal risks to consider for the therapeutic approach of these patients.

CLINICAL CASE

A 76-year-old woman (BMI = 24kg/m2) developed facial pain clinic
anterolateral left thigh accompanied by paresthesias and loss of sensation after undergoing a
spinal surgery intervention(2).

Conventional analgesia was administered in a staggered manner using acetaminophen, metamizole and dexketoprofen, adjuvant (pregabalin, clonazepam and topical lidocaine) later reaching the use of tapentadol, morphic chloride and buccal fentanyl with no improvement.

After days of hospitalization without achieving clinical remission, it was decided to perform a sensory block by means of a local infiltration of corticosteroids and 1% lidocaine in the territory of the nerve.
lateral femoral cutaneous with which the
The patient reported an immediate improvement in the symptoms, but only temporarily (3 hours).

Provisional analgesic treatment was established and, after assessing jointly with the anesthesia service, it was decided
finally neurolyze the nerve
femorocutaneous by radiofrequency pulses
in the surgical area of our hospital.

A peripheral venous line was taken, the patient was monitored, and sedation was administered. The technique was carried out
ultrasound guided. With the patient lying in the supine position, the anterior superior iliac spine was located as well as the course of the inguinal ligament and
were referenced by brands
skin with a marker.

A sterile carving of the area to
intervene, and with the help of an ultrasound the nerve was identified following the technique described by Hurdle(3) (Image 1).

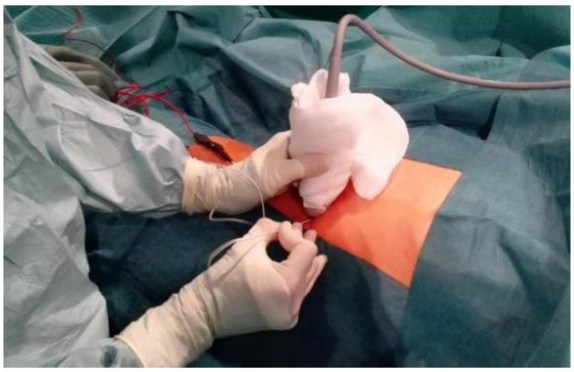

Image 1 Radiofrequency neurolysis of the femoral cutaneous nerve, ultrasound-guided

After sensory stimulation and pain reproduction, radiofrequency pulses were administered for 120 seconds at 42oC (Image 2). Another cycle of pulsed radiofrequency was repeated, modifying the position of the needle by 180º. Finally, 0.25% bupivacaine 3ml plus 4mg dexamethasone was administered locally.

Image 2. Ultrasound vision of the electrode on the femoral sensory branch
side.

After the procedure, the patient reported a complete and immediate improvement of the symptoms referred to at the level of the anterolateral aspect of the thigh. at 24 hours
the patient was discharged home with absence of clinic.

Fifteen days after the intervention, the patient had noticed a clear improvement with remaining pain in the area, but with much milder characteristics than the initial one and which was controlled by taking paracetamol regularly.

occasional.

In successive reviews carried out
up to 6 months after the completion of the technically, the pain has remained at a stable and acceptably mild level (VAS = 2-3), and the patient has not required new analgesic measures, having also recovered her functionality and previous daily activities.

DISCUSSION

Meralgia paresthetica is a sensory mononeuropathy with an incidence of 4 per 10,000 people/year (4). It normally occurs due to compression of the lateral femoral cutaneous nerve at its exit at the level of the anterior superior iliac spine with the inguinal ligament (the area where it is most exposed), although there are numerous causes that can cause alterations along the entire neural pathway. (5).

Most patients respond to conservative measures, but there is a group that presents pain that is refractory to non-invasive measures. Based on experience and reports in the literature(6)(7), we believe that these cases could benefit from treatment by

pulsed radio frequency.

There are two types or modalities of radio frequency: conventional or continuous and the pressed Contrary to continuous neuromodulation, pulsed radiofrequency neuromodulation does not destroy nerve tissue(8) but can alleviate pain by delivering electric shocks to the nerve, without altering the surrounding structures(9). There are theories that propose that radiofrequency produces an effect

modulator by a change in the gene expression in pain-transmitting neurons, and the exact mechanism is not fully known today(10).

Among the advantages that have been described in favor of using pulsed radiofrequency are find: the few effects side effects, the possibility of repeating the treatment in the event of pain recurrence, and the documentation of cases that support the effectiveness of said treatment in certain types of peripheral nerve lesions(11)(12).

The lateral femoral cutaneous nerve arises from fusion of the L2/L3 segments. It leaves the retroperitoneum around the lateral circumference of the iliac. Medially to the anterior superior iliac spine, the nerve passes under the inguinal ligament and enters the anterior aspect of the thigh under its fascia. It follows a superficial course and approximately ten centimeters below the anterosuperior iliac spine, this nerve divides into two branches: anterior and posterior, which innervate the anterolateral and posterolateral part of the thigh, respectively. The course of the nerve can be variable. A study in cadaveric specimens found a range of 2-5 cm of lateral variation to the anterior superior iliac spine(13). Due to the possibilities of anatomical variation of location of the femoral cutaneous nerve lateral, it is advisable to use ultrasonography for precise localization(14), in addition to having the help of professionals experienced in performing nerve infiltrations.

peripherals.

In our case, all the recommended conservative treatment options were used without success. just the direct nerve infiltration cutaneous femoral therapy achieved a transient improvement in symptoms (which also confirmed the etiological suspicion of thigh pain). After performing the radiofrequency pulses, the patient's improvement was immediate, decreasing the pain sensation by 100% in the first two weeks, leaving a slight discomfort in the successive examinations, controllable with occasional analgesia and not

being necessary to reiterate the intervention for now.

CONCLUSION

There are already other reported cases in the literature of treatment of meralgia paresthetica by ultrasound-guided pulsed radiofrequency, which have obtained good results with few associated side effects. Without However, there are no prospective randomized studies that analyze and evaluate the use of this technique in a way that justifies its standardization and incorporation into clinical practice as a proven alternative in patients with meralgia paresthetica that does not respond to conservative treatment, although it is true that the The results obtained with this technique are

hopeful.

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