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CLINICAL INFORMATION

Multimodal therapeutic approach of vaginismus: an innovative approach through trigger point infiltration and pulsed radiofrequency of the pudendal nerve

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KEYWORDS
Vaginismus;
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Abstract Vaginismus is a poorly understood disorder, characterized by an involuntary muscular spasm of the pelvic floor muscles and outer third of the vagina during intercourse attempt, which results in aversion to penetration. It is reported to affect 1–7% of women worldwide. With this report the authors aim to describe the case of a young patient with vaginismus in whom techniques usually from the chronic pain domain were used as part of her multimodal therapeutic regimen.

PALAVRAS-CHAVE
Vaginismo;
Radiofrequência pulsada;
Nervo pudendo;
Ponto gatilho;
Dor crônica

Terapêutica multimodal do vaginismo: abordagem inovadora por meio de infiltração de pontos gatilho e radiofrequência pulsada do nervo pudendo

Resumo O vaginismo é uma doença pouco compreendida que se caracteriza por uma contração muscular involuntária dos músculos do pavimento pélvico e do terço externo da vagina durante as tentativas de intercurso sexual, o que resulta em aversão à penetração. Estima-se que possa afetar entre 1%-7% da população feminina mundial. Com este relato os autores pretendem apresentar o caso de uma paciente jovem com vaginismo na qual foram usadas técnicas habitualmente do domínio da medicina da dor crônica como parte do seu esquema terapêutico multimodal.

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Introduction

Vaginismus is a disorder characterized by involuntary contraction of the pelvic floor and vaginal muscles, which makes sex intercourse difficult or impossible.[1] Although it was first described over 100 years ago, it remains poorly diagnosed and undertreated, a fact that becomes more relevant if one takes into account that compared to other sexual disorders, especially of desire and orgasm, it appears to be one whose treatment has the greatest potential for success.[2] Several treatments have been used over the years, including sexual therapy, desensitization, hypnotherapy, vaginal dilators and injection of botulinum toxin, among others.[2,3] Nevertheless, the optimal approach has not been determined, and both our clinical experience and current international literature point toward the pulsed radiofrequency (PRF) because its neuromodulatory properties are useful in the treatment of refractory pain.[4–7]

Clinical case

Female patient, 29 years old, nulliparous, ASA II due to diabetes mellitus (DM) type I since adolescence, taking insulin with good glycemic control in outpatient service, and with a history of repeated vaginal infections. The patient was referenced to the Pain Medicine Unit (PMU) of our institution due to complaints of vulvodynia and dyspareunia with two years of evolution. She had no history of aggression, trauma or accident; had surgical history of conization. At the time of referral, she was attending psychiatric and gynecologic consultations and in treatment with estazolam, escitalopram and topical dibucaine for use before sex intercourse. She described a self-limited and only temporary relief of pain symptoms with the latter drug.

At the physical examination, the patient had a marked sensitivity in the lower half of the vaginal introitus, disabling and limiting for clinical observation itself, and she tolerated with difficulty, for example, digital or compress vaginal examination. In this context, infiltration of the vaginal trigger points (TP) was proposed. The technique was performed under sedation in the outpatient unit (Fig. 1), and consisting of infiltration of the introitus at four, five, six, seven, and eight o'clock markers, with 0.2% ropivacaine (2 mg mL^{-1}) and clonidine (100 μg). No complications were recorded during this procedure. Four months after, the patient reported improvement of vulvodynia, but vaginismus was present at the physical examination. Thus, she was advised to undergo individual hypnotherapy sessions and bilateral PRF of the pudendal nerve, which she accepted.

On procedure day, upon arrival to the operating room, the patient was premedicated with intravenous (IV) fentanyl (0.05 mg) and midazolam (1 mg) and placed in gynecological position. Subsequently, she was anesthetized with propofol bolus, a total of 270 mg IV. After proper disinfection, the ischial spine (IS) and insertion point of the sacrospinous ligament were identified transvaginally. Medially to IS, a 23G radio frequency needle with 10 cm long and 0.5 cm active tip was introduced gradually, with 2 Hz motor stimulus until pudendal nerve identification, visually confirmed by the occurrence of contraction of the external anal sphincter muscle (Fig. 2). Subsequently, an alternating current was applied bilaterally to the pudendal nerves for 240 s (2 cycles of 120 s). It has been infiltrated also, for the second time, a TP at five and seven o'clock with 0.2% ropivacaine and methylprednisolone acetate (Depo-Medrol®) (Fig. 3). The procedure was well tolerated by the patient, and no complications were reported.

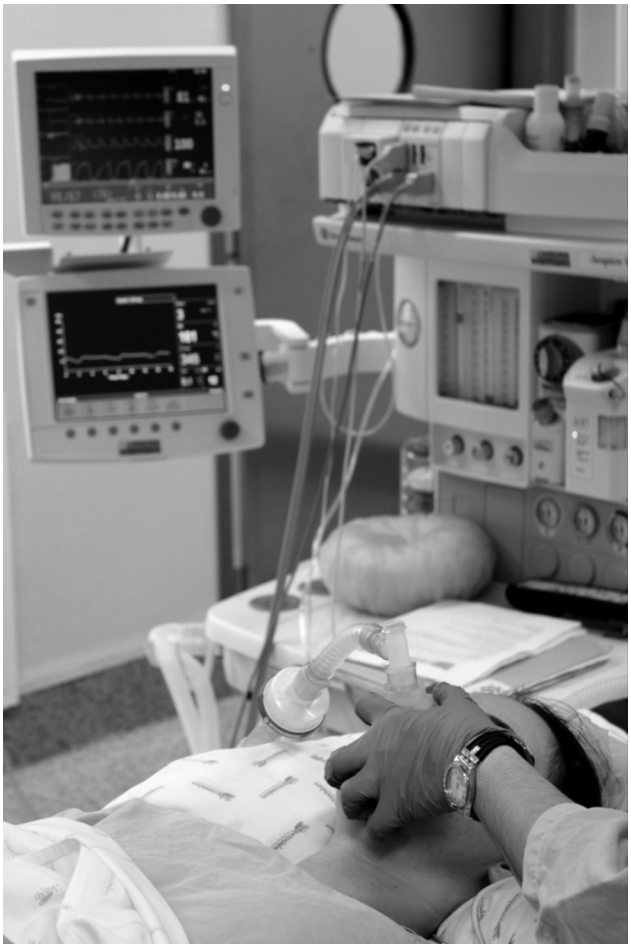

Figure 1 Patient at the outpatient unit, under deep sedation to trigger point infiltration. During the procedure, an American Society of Anesthesiologists standard monitoring was used.

In the first 12 months of follow-up, the patient reported significant clinical improvement and managed using progressive size dilators and attempted penetration. The pain complaints were limited to the vaginal vault. From the 13th month, the pain intensity increased, although to a lower threshold than when she was initially referred to the PMU. Given these circumstances, it was decided to repeat the PRF with the same protocol used in the first intervention. Five months later, the patient has not required a new differentiated intervention by the PMU.

Discussion

Currently, almost half the world's female population suffers from some kind of sexual dysfunction.[5] Vaginismus is one of these disorders and is estimated to affect up to 7% of women, a figure that may represent an underestimation, as

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