Case Report

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Vaginismus and Perineal Rehabilitation

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ABSTRACT

Vaginismus is an involuntary contraction of the muscles of the pelvic floor following an attempt or anticipation of sexual intercourse, penetration by a finger, or by an object. Vaginismus is characterized as a disorder of penetration, thus making any penetration painful, if not impossible.

Hypothesis: Physiotherapy treatment has favorable results in a case study of primary vaginismus present in a 27-year-old young woman following the failure of several other therapies.

Methods: It was first necessary to create a ground of trust with the patient and to explain to her the anatomy and physiopathology of the perineum. Different physiotherapy means of perineal rehabilitation have been used: electrotherapy to relax and antalgic the spastic muscles of the pelvis, stretching and softening of the tendino-muscular complex of the pelvis and lower limbs; then a progressive vaginal approach with perineal manual therapy, dilators, electrotherapy and positive biofeedback (vaginal probe) and especially negative biofeedback for awareness of muscle relaxation; the technique contract / release with breathing.

Results: The patient began to have intercourse with vaginal penetration positively impacting her quality of life and the couple's quality of life improved.

Conclusions: Perineal rehabilitation had favorable results in the context of primary vaginismus in a young 27-year-old patient.

Keywords: Vaginismus; Physiotherapy; Perineal Rehabilitation

Introduction

Sexual health is framed by rights and is defined by the WHO [1] as "a state of physical, emotional, mental and social well-being in relation to sexuality, not just the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free from coercion, discrimination and violence. To achieve and maintain good sexual health, the Human Rights and Sexual Rights of all people must be respected, protected, and fulfilled". Vaginismus is an involuntary contraction of the muscles of the pelvic floor following an attempt or anticipation of sexual intercourse, penetration by a finger, or by an object [2]. Vaginismus is characterized as a disorder of penetration, thus making any penetration painful, if not impossible. Vaginismus is a common pathology whose prevalence varies between 5 and 17% [3]. Vaginismus has a significant impact on the quality of life from a psychological, social, couple life and fertility point of view. Several studies have shown that it causes marked distress or interpersonal difficulties in the women concerned [4] and is moderately correlated with the level of stress [5].

As with other sexual dysfunctions, it can lead to marital and interpersonal problems [6-7], and it is likely to lead to infertility. Vaginismus has been associated with high risk of marital relationship disruption, anxiety, depression, and low self-esteem. The most consulted specialists in case of vaginismus are often multidisciplinary to optimize the results: general practitioner, gynecologist, psychologist, sexologist and physiotherapist or midwives specialized in the rehabilitation of the perineum. "Perineal re-education, carried out endovaginally, promotes relaxation of the muscles that the patient contracts voluntarily or involuntarily: re-education is therefore oriented towards relaxation which improves the quality of sexual life. The perception of contractions favors the perception of the receptors

of vaginal sensitivity: the tenso and the presso-receptors which are stimulated by the contraction of the pelvic muscles; this stimulation is identical when it is produced by the pressure of a penis, a finger or any other object. Thanks to this awareness of the sensitivity of the superficial and deep receptors, the woman can act on her perineal relaxation, on the rise of her genital sexual arousal and of her sexual pleasure [8].

Before this perineal re-education by vaginal route, which proves impossible during the first sessions, the role of the physiotherapist is first of all to create a ground of trust with the patient based on listening, empathy, explanations on anatomy, physiopathology and course of treatment; then begin rehabilitation with an "external" approach until the patient is ready for an endovaginal approach.

Types of Vaginismus

Primary: Vaginismus is said to be primary if penetration has always proved impossible or difficult. The primary form represents the highest frequency of vaginismus. It appears at the beginning of a woman's sexual life.

Secondary: Vaginismus is said to be secondary if it appears after a satisfying sex life without any particular problems. Following a physical or psychological trauma, infection, hormonal change due to menopause or pelvic pathologies, penetration becomes impossible [9].

Vaginismus can be classified into four degrees based on severity [10]:

1. Levators spasm, disappearing by reassuring the patient;
2. Levators spasm, persistent during gynecological examinations;
3. Levators spasm, contraction of the buttocks during any attempt at examination;
4. Levator spasm, dorsal arch contraction, thigh adduction, defensive movements, and lower limb retraction;

Grade XO

Grade 4 associated with vegetative manifestations, refusal of any examination. In severe cases of vaginismus, the adductors of the thighs, the rectus abdominis and the gluteal muscles may have a reflex contraction that is triggered by imagined or anticipated attempts to penetrate the vagina or during sex [11]. Vaginismus can also be classified as total or partial/situational. It is total when the introduction of any body or object into the vagina is impossible (sanitary tampon, finger, medical material, etc.). It is partial or situational when penetration is impossible or difficult and painful especially during attempts to penetrate the penis, while the introduction of other objects is possible and does not generate spasms or pain.

In the literature there are several therapeutic approaches, often combined:

- Medicated [12];
- Botulinum toxin injections [13-15];
- Psychologist/ psychological therapies, [16];
- In vivo exposures [17];
- Sex education and sensual and sexual development techniques [18];
- Relaxation therapies such as yoga, sophrology, acupuncture etc.;
- Dilators [19];
- Hypnosis, [18];
- Analgesic cream [20];
- Physiotherapy [21].

Materials and Methods

A 27-year-old patient comes to the office with a medical prescription for perineal rehabilitation in the context of vaginismus. The patient discovered vaginismus after her marriage in 2015, as the patient had never had sex before. Sexuality for her is a delicate subject, firstly because of her religion and because of a history of sexual touching on another member of her family in her childhood, which had disturbed her psychologically. She began seeing doctors and specialists shortly after her marriage:

- In 2015, a family doctor sent her to a gynecologist.
- The patient sees two different gynecologists and carries out some gynecological examinations which turn out to be normal, she is prescribed an anesthetic cream, but intercourse is still impossible, so she is advised to see a psychologist.
- In 2016 she began therapy with a psychologist which will last for about a year.
- In 2018 she consults a sexologist, and she does another therapy for 6 months with another psychologist, specifically EMDR therapy (Eye Movement Desensitization and Reprocessing). This psychotherapy makes it possible to solve the psychological, physical and relational consequences of traumatic and disturbing life experiences.

The patient states that the therapies did her a lot of good psychologically, but sexual intercourse still proved impossible. After 5 years of failure in his multiple treatments, her attending physician is also trying to send her to a physiotherapist. The physiotherapy clinical examination revealed very significant anxiety in the patient despite her motivation to seek treatment. The examination was therefore carried out as the sessions progressed, respecting the fear and wishes of the patient. She says having severe anxiety just thinking about having sex in any form. She presents with primary vaginismus, rather fourth degree at the first session because the vaginal examination proved impossible and she presents spasms of the levators, adductors

of the thighs and buttocks. The clinical examination by vaginal route was possible at the fourth session once the patient began to trust her physiotherapist more, the musculature of the pelvis and the lower limbs had already been more relaxed by stretching sessions, stretching and physiotherapy combined with thermotherapy.

Goals

- Softening and relaxation of the entire musculature of the pelvis.
- Learning to contract / relax the perineal musculature with an emphasis on muscle relaxation.
- Having sexual intercourse with vaginal penetration.
- Decrease spasms and pain during intercourse.
- Increased quality of life.

Physiotherapy Treatment

Create a ground of trust with the patient, based on listening, empathy, explanations of anatomy, physiopathology and course of treatment, behavioral advice: lubrication, arousal curve, use of dilators 3 times per week.

External Approach:

- Stretching of the overall musculature of the pelvis and lower limbs. The stretching will be slow, progressive and painless in order to avoid the appearance of the defense reflex (myotatic reflex);
- Contract-release technique for the adductor muscles of the thighs, glutes, psoas: contract during inspiration; release during exhalation. A muscle contraction (light) is requested from the patient, not for the strengthening of the muscle since it is already hypertonic, but rather for a better awareness of the area to be released. Contraction takes place on inspiration and relaxation during expiration;
- Massage, thermotherapy and analgesic and decontracting electrotherapy of the musculature of the pelvic floor and the pelvis;
- Stimulation of trigger points on myofascial tensions;
- Relaxation technique in short position of contracted musculature (Jones technique);
- Daily self-stretching of the pelvis and lower limbs;

Internal Approach: gradually and with respect for the pain.

- Manual techniques: perineal massage, the technique contract / release with breathing;
- Electrotherapy (vaginal probe): endorphic TENS 1Hz, conventional TENS 80 Hz, contract-release EMS for phasic contraction (75 Hz) and tonic contraction (30 Hz);
- Positive biofeedback (vaginal probe) and especially negative biofeedback for awareness of muscle relaxation; contract-release;
- Learning to use dilators [19];
- Perineal self-massage and the use of dilators at home 3 times a week.

The physiotherapy treatment was carried out during the period:

- February-May 2022 with a total of 10 practice sessions and contract-release self-exercises at home approximately 2.3 times a week
- September-November 2022 – 5 sessions in the office and 3 times a week self-exercises at home to contract-release and use of dilators.

The equipment used for electrotherapy and biofeedback is the Phenix Nano Physiouro rehabilitation device and the Periform plus/St Cloud OVA type vaginal probe, but there is the possibility of choosing a cylindrical probe for vaginal and anal rehabilitation such as Analys Plus or Anuform which have slightly smaller sizes. The prescribed dilators are silicone dilators in size 20mm X 150mm, 24mm X 163mm, 26mm X 177mm. Start with the first size at the beginning of the session then use the larger sizes gradually (if possible). Each dilator is left in the vagina for a few minutes, then back and forth and rotational movements are performed. These movements will allow the tissues of the vagina to expand slowly. To perform several repetitions with each size while respecting the pain.

Results

The intimate and psychological quality of life has been improved by fewer vaginal spasms, she easily accepts perineal re-education through the vagina and the introduction of objects such as the vaginal probe, the therapist's fingers, or dilators. The patient was able to start her sex life with vaginal penetration, sometimes with some difficulty, but her life as in the couple has clearly improved, as well as her psychological anguish in relation to her sex life and the worry about having children.

Discussion

Vaginismus leads to a decrease in the quality of life of the woman, the couple and especially the concern of infertility. Sexologists offer multiple techniques for an accomplished sex life with or without penetration if this is sometimes difficult in the context of vaginismus. It is also advisable to gender-functionally analyze the partner and assess his ability to invite his partner to share sexual activities. Often, it is recommended that the patient be the master of the game in order to maintain some control over the course of the situation, which can help avoid certain pitfalls. When individual sexual functionality is restored, the patient can gradually leave control to her partner, with the aim of moving towards relational sexual functionality [22]. In the study by Liu [19], patients' motivation for exercises and regular use of dilators for at least 15 minutes per session, 3 times per week, showed anxiety scores and lower pain. The use of reading during dilation impeded progress, while relaxation techniques appeared to improve recovery.

The presence of the partner during dilation and the use of dilators before coitus were associated with a significant reduction in pain and anxiety levels. The perineal contractions worked by physical exercises, manually or by electrostimulation and biofeedback promotes the perception of the receptors of vaginal sensitivity, hence the interest of also working on perineal strengthening and not only relaxation and muscle relaxation in the case of a vaginismus.

The results of research conducted by Yaraghi [23] indicated that comprehensive standard physiotherapy, along with other measures, such as functional electrical stimulation and desensitization, could effectively improve the female sexual function index patients compared to botulinum treatment. Given the superior effectiveness of physiotherapy procedures, this therapeutic method should be considered the first-line treatment of vaginismus. Simultaneously with rehabilitation, a multidisciplinary approach with a psychologist or with a sexologist is recommended for better adaptation and integration of the progress of rehabilitation in the life of the couple. The ideal treatment for vaginismus must be a complex interaction between the biological, emotional, psychological, and relational components of the lives of women and couples [24]. In the future, patients may be offered the in vivo exposure technique. In vivo exposure is a technique with significant efficacy for specific phobias (shame, fear, anxiety, etc.) especially for the treatment of primary vaginismus. It can be assisted by a professional or practiced at home, this technique has the advantage of being able to be used every day and in different situations, whether or not including the partner [17].

Conclusion

Perineal rehabilitation had favorable results in the context of fourth-degree vaginismus in a 27-year-old young patient who had never had sexual intercourse with vaginal penetration before. Regular physiotherapy follow-up, good vaginal lubrication, diligence in performing physical exercises and the use of dilators may be recommended to prevent recurrences and maintain results. A multidisciplinary approach optimizes the chances of recovery, but each woman is different and can react differently to the therapies mentioned above, it is up to each one to find the method or methods that suit her best. Physiotherapy should be part of one of the first intentions in cases of vaginismus.

Declaration

The patient gave her written consent for the production of this article with strict respect for anonymity. This case study has been approved by the UNEFS Bucharest Research Ethics Commission with number 104/25.01.2021.

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