

Vaginismus

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ABSTRACT

Vaginismus is a rare clinical condition that prevents vaginal penetration, either during the sexual act, or by a gynecological speculum or any other object. It is associated to multiple factors including social, psychological, psychiatric, gynecological, psychoanalytical, and sexual conditions. Its etiology is mainly linked to sexual traumas and rigid sexual education, even though this kind of association is not always traceable. Knowledge about the subject is extremely limited, even among physicians. This is a difficult topic to approach, sometimes requiring iatrogenic approaches. Its treatment includes cognitive and behavioral psychotherapy, medical treatment with anxiolytics and topic anesthetics, as well as use of vaginal vasodilators. Treatment methods based on physical therapy by vaginal electrostimulation and vaginal injections of botulinum neurotoxin have been proposed, although no scientific evidence currently evidently supports their use. This review discusses concepts and treatment methods for vaginismus.

Key words: Vaginismus/etiology; Vaginismus/diagnosis; Vaginismus/classification; Vaginismus/therapy; Dyspareunia; Botulinum Toxins/therapeutic use; Sexual Dysfunction, Physiological.

RESUMO

Vaginismo é condição clínica rara em que a penetração vaginal, seja pelo ato sexual, espéculo ginecológico ou outro objeto, é impedida. Associa-se a multiplicidade de fatores que incluem condições sociais, psicológicas, psiquiátricas, ginecológicas, psicanalíticas e sexológicas. Sua etiologia está ligada, principalmente, a traumas sexuais e educação sexual rígida, embora nem sempre essas associações possam ser feitas. É assunto sobre o qual existe grande desconhecimento, inclusive pelos médicos, o que torna sua abordagem difícil, muitas vezes iatrogênica. O tratamento inclui técnicas de psicoterapia cognitiva e comportamental, tratamento médico com ansiolíticos e anestésicos tópicos, além de uso de vasodilatadores vaginais. Tratamentos com base em fisioterapia por eletroestimulação vaginal e injeções vaginais de neurotoxina botulínica têm sido propostos, ainda sem evidência científica que os autorize. Esta revisão discute conceitos e tratamentos do vaginismo.

Palavras-chave: Vaginismo/etiologia; Vaginismo/diagnóstico; Vaginismo/classificação; Vaginismo/terapia; Dispareunia; Toxinas Botulínicas/uso terapêutico; Disfunção Sexual Fisiológica.

INTRODUCTION

Vaginismus is a sexual dysfunction that affects 1 to 6% of women in active sex life, and whether its prevalence is increasing or decreasing is still unknown.¹ There are many uncertainties as to the concept, diagnosis, and forms of treatment of vaginismus, and various experts, such as psychologists, physiotherapists, gynecologists, psychia-

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trists, sexologists, and psychoanalysts engage in the effort to propose a way to approach it.²

Many professionals are unaware of this sexual dysfunction, which causes patients to be subjected to a procession of professionals, often including inadequate and iatrogenic treatments. Patients report being treated as neurotic or difficult and accused of not collaborating with medical examination. They sometimes report that the gynecological exam feels like rape since the central issue of this sexual dysfunction is inability to allow vaginal penetration, either through sexual intercourse, gynecological exam or other situations, but not every time.

The increasing access of women to health services causes vaginismus to come up more and more in public and private care clinics, although this does not necessarily mean that its prevalence is increasing. It may be that women feel more encouraged to seek help as a consequence of greater emancipation. It is necessary that health professionals understand that this condition is involuntary, and patients suffering from it lack the means to heal themselves without expert help.

This review discusses the fundamental aspects and the current state of the art of this sexual dysfunction.

METHODOLOGY

The bibliography is based on data from Scielo and Pubmed, based on which the bibliographic research was conducted. The research comprised the period of 2004 to 2011, in both the Portuguese and English languages. The most relevant articles were selected for their methodological quality by international standards.

Due to the importance of the historical aspects of the subject, the most important bibliographic sources of earlier periods have been cited and used as reference.

HISTORY

Tracing a history of vaginismus is important in order to know how long it has been described in medicine and how inaccuracies have persisted over time. It was cited for the first time in the 11th century Italian medical literature. In the 17th century, the English physician Sims – who lived in the Victorian period, known for its sexual repression – described a similar condition as being a “spasmodic vaginal sphincter contraction”, which he attributed to irritating condi-

tions to the vulva and vagina, which – he added – were difficult to explain. He called this situation vaginismus.³ Alfred Kinsey, considered the founder of scientific sexology, despite diagnosing vaginismus in his patients, focused his studies on other sexual dysfunctions and did not considerably help to advance knowledge in this area, although his wife, Barbara, was a victim of the problem.⁴ In the 1970s, Masters and Johnson’s studies consolidated a definition and a process of treatment still in use, though they remain controversial and disputed by evidence-based medicine.⁵ From the 1970s on, although she did not question the diagnosis as proposed by Masters and Johnson, Helen Kaplan,⁶ an important author in sexology, proposed methodological modifications mainly in the treatment of vaginismus; the same applies to the monumental work by John Money.⁷ Although elucidating all aspects of vaginismus still seems far from happening, at the moment the great contributors to the study of vaginismus (and also of dyspareunia) are the researchers at the McGill University in Montreal, Canada, led by Binik, Bergeron, and Khalifé. These authors question, in a foundational manner, most authors previous works and propose a new era for the study of so-called “sexual pain”.

INCIDENCE AND DIAGNOSIS

Incidence of vaginismus varies from 1 to 6% of the sexually active female population¹ depending on how it is classified, in what cultural background it occurs and what method is used to confirm it.^{1,2}

The current definition of vaginismus in the DSM IV (1994-2000) derives from Masters and Johnson and is virtually unchanged from the DSM III, 1980², that is, “recurrent or persistent involuntary spasm of the musculature of the outer third of the vagina that interferes with sexual intercourse”.

The definition of vaginismus has three basic ambivalences:

- if the diagnosis of vaginismus implies internal vaginal muscle spasm, it can only be made by a gynecologist since psychiatrists are not generally trained in gynecological examination. Therefore, vaginismus should be labeled a gynecological disease, not a mental one.
- how to diagnose vaginismus if the woman does not allow vaginal examination? How to tell if she has muscle spasm without access to her vagina?

The only conclusion left is that this diagnosis made by “assumption”.

- the difficulty to make this diagnosis limits the success of scientific papers based on evidence. Another question is whether vaginismus is actually a sexual dysfunction or a gynecological condition. Does the patient contract the muscles because she feels pain or because she has a phobia of penetration or does she experience spasms that hinder vaginal penetration and feels pain because of that?

The answer to this conundrum has its origins in the works of physiotherapists, with biofeedback studies and vaginal electrostimulation.^{2,3} These works challenge Masters and Johnson’s definition⁵ and do not confirm that women with vaginismus experience vaginal spasms when examined using such methods, regarded as more updated and reliable. They also believe that vaginal spasm is the result of vaginismus rather than its cause.

Another issue is whether vaginismus is defined as difficulty to achieve merely sexual penetration or any other type of penetration (by sex objects, fingers, or gynecological speculum). Are there any differences between vaginismus in which only sexual penetration is impeded, but other objects are not? Should vaginismus be classified only as the condition that occurs in women who do not “in any way” allow vaginal penetration or can there be mild, moderate, or severe forms of vaginismus, as Lamont suggested in 1978.^{9,10} The diagnostic controversies surrounding vaginismus are many and will probably continue to exist.

Reissing proposed a diagnostic classification that dispenses with the gynecological exam⁹ and considers that vaginismus occurs in women who have never achieved: a) complete sexual penetration after 10 attempts in different occasions; b) complete sexual penetration in less than 10 attempts and who experienced other disturbances with vaginal penetration; c) sexual penetration over the past 12 months, but managed sexual penetration in the past and have a history of other disturbances with vaginal penetration since the beginning of the problem.

In an attempt to solve these issues, several experts from 33 countries have made a summary of recommendations on female sexual dysfunction¹¹ and suggested the following definition of vaginismus for the DSM V, to be released in 2013: “a woman’s persistent or recurrent difficulty to allow entrance of a penis, finger and/or object into her vagina, despite the woman’s expressed

desire to do so. There usually occurs avoidance (phobic), involuntary contraction of the pelvic muscles and anticipation/fear/experience of pain. Other structural or physical abnormalities should be excluded”. Despite the possible objections to this definition of vaginismus, it must be considered the most updated and comprehensive so far. It is the one that will, with some modifications, be included in the DSM V.

ETIOLOGY

Vaginismus is considered to arise from sexual trauma, especially in childhood.^{1,3,5,6} Histories of strict sexual education, be it on moral or religious grounds are common. There is also a significant relation between a history of childhood sexual abuse and rape at any stage of life prior to vaginismus.⁵ Histories of “honeymoon” traumas are also common: unsatisfactory, painful and/or forced first experience of sexual intercourse. The etiology also comprises previous injuries to the vulva and vagina, histories of repeated infections causing pain, and chronic irritation, i.e. dyspareunia that progresses into vaginismus.^{2,5,6} In another group are women who suffered non-sexual trauma in the past (car accidents, domestic violence, armed robberies) and developed vaginismus. In these cases, vaginismus can be said to be an atypical symptom of panic syndrome.¹² It can also originate from denial of homosexuality by women who insist on heterosexual relationships despite lack of desire. There are cases in which vaginismus constitutes rejection to a specific partner, and the condition disappears when the patient changes partners. This includes sex partners that represent incestuous relationships (a much older man, similarities between partner and father, paternal behaviors on the part of the partner); hostile, aggressive and rude partners, or the opposite, overly sweet or effeminate ones that arouse (often unfounded) suspicions of homosexuality in women. Rejection of sexual intercourse culminates in vaginismus. There are cases of vaginismus arising after menopause, typically due to vaginal atrophy in this period or without this factor.⁵

In a limited number of cases there are women with none of the histories mentioned, for whom it is difficult to find an etiological factor.

Masters and Johnson⁵ indicate male factors as causes of vaginismus and include men suffering from impotence and premature ejaculation among the

causes of their sex partners' problems. After the advent of treatment with phosphodiesterase inhibitors, it has been observed that spouses who are medicated and are able to achieve normal erections during sexual intercourse are not able to change the course of the vaginismus, so this matter does not seem to be of great importance, the same being true for premature ejaculation.¹² Old Gynecology compendia, from before the main causes of vaginismus were better known, stated it was primarily due to physical factors, such as rigid hymens or transverse septum and vaginal rings, hemorrhoids, vaginal caruncles, etc. Kaplan⁵ was the one who alerted to how rare this etiology is (less than 1% of the cases), remarking that: "by virtue of the fact that they can cause pain on penetration and intercourse, they provide the negative contingencies under which the pathological conditioned vaginistic response may be acquired".

In the daily practice at the Sexology clinic of Faculdade de Ciências Médicas de Minas Gerais, patients treated with hymenotomy for supposed rigid hymen persist with vaginismus even after surgery. Successful cases of surgical treatment of vaginismus are rare. As Kaplan⁵ asserts: "after successful surgical or hormonal correction of pelvic pathology the patient and her gynecologist are disappointed to find that she still reacts with vaginismus when intercourse is attempted".

Although the psychoanalytical explanations for vaginismus are open for debate and might actually be at the core of the problem in many cases, we notice that psychoanalysis does not succeed in most cases of sexual dysfunction.^{3,5,6} Kaplan, who was a psychoanalyst, used cognitive-behavioral techniques, as well as psychodynamics, in her attempts to diagnose and treat vaginismus. She considered that unconscious hostility towards the partner or ambivalent unconscious behavior toward him might be a major cause of vaginismus, but underestimated problems related to the Oedipus complex.⁶ No author since has made as important a contribution to the study of the unconscious causes of vaginismus as Kaplan. Her etiological concepts can be summarized by suggesting that vaginismus occurs when a negative contingency associates with the act or fantasy of vaginal penetration. For Kaplan, the remote causes are non-specific they are multiple and may include any of the above-mentioned determinants as long as they keep producing pain or fear of intercourse. Although not all patients with vaginismus are neurotic, some may have important psychiatric factors as a basis.

DIAGNOSIS

Masters and Johnson can be considered the first authors to propose an innovative and scientific approach to vaginismus.⁵ In 1970, they defined it as a result of muscle spasms of the vagina's external third, a concept which has only recently been revised. They also established that it is possible to diagnose vaginismus without a gynecological exam. These authors reported:

A woman troubled by vaginismus displays an unusual pattern of physical reaction. She reacts in a fixed pattern of psychological distress during the routine pelvic exam that includes observation of the external genital organ and manual examination of the vagina. The patient indeed tries to evade the examiner's approach, retracting toward the head of the table, and even taking the legs off the leg holders and/or contracting her thighs to avoid the implied threat of imminent vaginal examination. This reactive pattern can often be deduced more from the mere anticipation on the part of the woman of the examiner's physical approach for the pelvic exam than from the actual act of manual pelvic examination.

Masters and Johnson also suggested the gynecological exam ought not to be forcefully made so as not to accentuate the woman's trauma, and that diagnosis of vaginal spasm should only be made through gynecological examination after the patient is appeased. In reality, such "appeasement" is not very easy because the pelvic contraction response is involuntary and caused by ingrained psychological mechanisms. The patient often does not even realize she is contracting the perineum.

What is challenged today¹³ is whether a woman really has chronic vaginal spasms and thence cannot achieve penetration or if she contracts the vagina and perineum due to fear of penetration only at the moment the threat appears. Studies by physiotherapists with electro stimulation and biofeedback show that the second situation is the most correct. No significant difference was found in the degree of vaginal spasm experienced by women with and without vaginismus based on electromechanical measurements.¹³

TREATMENT

Vaginismus is recognized as a sexual dysfunction and an eminently psychosomatic syndrome, in spite

of doubts whether dyspareunia is indeed a sexual dysfunction or whether the sexual dysfunction is a result of the pain and fear of pain.^{2,3,9,13} It is treated with a social, psychological, and physical approach.

The patient and her spouse generally suffer for being ignorant of the problem. Many times they have seen professionals who are also unaware of this problem and gave them inadequate information. For this reason, the first action to take is to inform them of the dysfunction and assure them that there are treatments available which, in general, are not those proposed by laypeople or misinformed professionals.

With Kaplan⁶ and Binik², therapy begins with psychotherapy and relaxation exercises before proceeding to gynecological examination and other that are more invasive of the patient's privacy since the patient already has natural resistance to physical approach. In the sexology clinic of Faculdade de Ciências Médicas de Minas Gerais treatment begins with small doses of anxiolytics, preferably not benzodiazepines.¹² Anamnesis includes specific questionnaires such as the international sexuality index and sexuality inventories selected and modified by Rodrigues Júnior.¹⁴ Patients are also requested to answer Heiman and LoPiccolo's open questionnaires¹⁵ at home, which inquire about the patient's complete sexual history, and the Beck Depression Inventory.¹⁶ The second stage of treatment begins with the gradual introduction of what is called "plaster casts".¹² The plaster casts were proposed by Moreira¹² as an alternative to other vaginal dilators used previously, which had several drawbacks or were very costly. To make the vaginal mold, a strip of plaster bandage is cut and a small plaster phallus is made, initially the width of a little finger, which after being made wet with water and molded into a rigid object becomes ideal for the patient to introduce with aid of a condom and some lube. The width of the mold is increased each week until it reaches a thumb's width. Thereafter, the patient and/or her partner are asked to start introducing one finger and doing intravaginal massage exercises with it. It is suggested that attempts at intercourse with penetration be interrupted in this period in order to avoid the frustration that leads to the feeling of incompetence and increases vaginismus. Parallel to the process of vaginal "dilation" and reversal of "vaginal spasm", cognitive-behavioral therapy is introduced with the aim of interrupting penetration phobia. Absence of either process (psychotherapy or introduction of molds, objects, or finger) prevents effective treatment. That happens because the physi-

cal and psychological processes of vaginismus are inseparable.

The sexual therapy and physical treatment last, on average, three to six months. There are cases in which treatment can take longer. Sexual intercourse should be resumed when the patient has overcome the fear of penetration, slowly and in ways that the patient can control and after it is possible to introduce the vaginal molds and the patient's or the partner's fingers with ease. Two weeks of sensory focus are suggested, as proposed by Masters and Johnson, and Kaplan (modified by Rodrigues Júnior)¹⁷ because many of the patients consider sexual intercourse as rape, and the weeks of therapeutic massage help accept sexual intercourse as an act of love.

Intercourse should start preferably with the woman on top position so she can control it and, in this way, feel safer. It is possible that the couple may not achieve intercourse in the first attempt and that penetration may occur gradually. The woman must not consider this a failure and should continue her attempts always gently and with the collaboration of her partner. It is often difficult for the partner to maintain effective erections in all situations. It is necessary to reassure him that this can happen and is normal. Even when the patient is already achieving the penetration, that alone should not be considered the end of the treatment. Masters and Johnson⁵ considered the cure rate of vaginismus high as they took this purpose to be their basis. Success rates of the treatment, however, are lower when other factors are considered, such as the presence of all the stages of sexual response (desire, arousal, orgasm) and degree of sexual satisfaction. Most therapists and patients consider that cure has been reached when sexual penetration becomes possible. Many patients come back after some time for other sexual problem treatments because the fear of penetration hides bigger and more complex fears. The cure rate based solely on vaginal penetration ranges from 93.3 to 100% but considering sexual response as a whole this index decreases to 25%.¹⁸

The physiotherapeutic treatments with electrostimulation and biofeedback devices have been proposed as supporting or isolated techniques for treatment of vaginismus, just as they are used for treatment of dyspareunia, vulvodynia, and urinary incontinence.^{1,3,9,13} The experience in the sexology outpatient clinic of Faculdade de Ciências Médicas de Minas Gerais shows that these treatments are more useful for dyspareunia than for vaginismus. There are no controlled studies that confirm or contradict the use of this technique.

The use of Botox (botulinum neurotoxin type A) via local injections in vaginal muscles as a means of treatment for dyspareunia and vaginismus can be an option in case of failure with the other usual treatments. There are few works on this technique and in most of them Botox was associated with other treatments (vaginal dilators, electromyography, etc.),^{19,20} which leaves doubts as to its real value. There is no consensus on the duration of treatment or the doses to be used.

DISCUSSION

Despite uncertainties about its etiology, the existence or not of vaginal spasm, the best course of treatment, what exactly constitutes successful treatment, as well as the classification criteria, etc., there have been advances in the knowledge about vaginismus and it is fair to say that it requires a multidisciplinary approach.

Professionals dedicated to the subject must understand the patients' suffering and seek to properly inform them of their condition, providing effective treatments (either by them or others), if possible based on the best evidence available. The best course of treatment includes specialized psychiatric, sexologic, and psychotherapeutic evaluation, followed by cognitive-based sexual therapy bolstered on sexual Medicine treatment including anxiolytic and topical medications and gradual use of vaginal vasodilators. Treatments with electrostimulation and biofeedback offer important diagnostic and therapeutic support. In some cases, more complex treatments based on psychoanalysis or long-term psychotherapy are required. Successful treatment is understood to be the achievement of complete vaginal penetration. However, the aim must be complete sexual response in order to avoid relapses.

New treatments are in progress, and studies in the field of physiotherapy have been very important to prevent vaginismus from hindering the well being of many couples.

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