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Vaginismus and Infertility

Rossy Sintya Marthasari[1,2], A. Marlinata[1,3], Reny I'tishom[3]

[1] Department of Medical Biology, Faculty of Medicine, Universitas Katolik Widya Mandala, Surabaya, Indonesia
[2] Primaya Hospital, Morula IVF, Makassar, Indonesia
[3] Department of Medical Biology, Faculty of Medicine, Universitas Airlangga, Surabaya, Indonesia

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ABSTRACT

Background: Vaginismus described as persistent or reccurent difficulties for woman to allow vaginal entry of a penis, a finger or there is often avoidance and anticipation, fear or experience of pain, along with variable involuntary contraction of pelvic muscle.
Reviews: Vaginismus can lead to unconsummated marriage, and also can be hidden caused of infertility. Vaginismus can be categorized as primary (lifelong), patient has never experiences non painful intercourse or secondary (acquired), patient has previously normal but now experience pain. Vaginismus should be considered as part of differential diagnosis in patient who has no satisfaction in sexual intercourse or do not tolerate penetration. Diagnosis is made by making a good history taking. A variety of intervention have been suggested in some case report study. Effective treatment to vaginismus include sex education, psychosexual therapy, systematic desensitization, anxiolytic and Botulinum Toxin (botox). While there are few controlled studies on the management of vaginismus, they are limited and poorly designed.
Summary: Goal of treatment is not only to achieve pregnancy but also increase quality of life. Either natural or assisted, vaginismus is still have to be cured. A great teamwork is required to successfull therapy.

Keywords: Vaginismus, Pain, Unconsummate Marriage, Infertility, Quality of Life

Corresponding author: rossysintya45@gmail.com

INTRODUCTION

Vaginismus described as persistent or reccurent difficulties for woman to allow vaginal entry of a penis, a finger or there is often avoidance and anticipation, fear or experience of pain, along with variable involuntary contraction of pelvic muscle.[1] Spasm is not always present in vaginismus.[2]

Vaginismus is a part of genito-pelvic pain/penetration disorder along with dyspareunia. According to Diagnostic and Statistical Manual of mental disorder (DSM V). Pronounced tensing or involuntary tightening of the pelvic floor muscles during attempted vaginal penetration can follow experience of pain, fear, or anxiety or develop without obvious reason.[3]

Vaginismus can lead to unconsummated marriage. Apart from another organic dysfunction, diseases that can be causes of infertility, healthy and normal intercourse in the right time is still required for pregnancy. That is why vaginismus can be a hidden cause of infertility cases.

Aim

We intent to write this article to understand more about the causes and patophysiology of vaginismus, to recognize the symptoms and to relief the patient by recent treatment.

History

The Lexicon medium by Hooper (1817) described dysmenorrhea as difficult or painful menstruation however, at that time there was no specific reference to vaginismus.[4]

Faure and Siredey concluded that vaginismus represented an involuntary, painful, spasmodic contraction of the vulva vaginal canal provoked by a hypersensitivity specific to the genital organ.[4]

November 1861 that dr. J Marion Sims, an American Gynaecologist, named and described the syndrome of vaginismus as "hypersensitivity" and suggested surgery as treatment.[5]

Epidemiology

The prevalence rate of vaginismus in a clinical setting has been estimated as 5% to 17%.[6] In a study in 1990, at a family planning clinic in Iran prevalence of vaginismus among Iranian woman was 8%.[7] In Tunisia, there was no specific data on the prevalence of vaginismus, as it remains a complain that not always told, and it accounts 10-15% of cases in sexology.[8] In UK statistics, prevalence of vaginismus 25% and in Ghana 68%.[9,10]

The worldwide incidence of vaginismus is thought to be about 1-7%.[6] The disorder is cross cultural and there is a large disparity among dissimilar cultures.[11] Difficulties in estimating prevalence may be result from two reasons. First, there is inconsistency in language, or word used to described vaginismus itself. Second, vaginismus is still being considered a taboo. Woman would not mention this complain if not necessary.[8]

Vaginismus can lead to sexual aversion further unconsummated marriage. In unconsummated marriages, vaginismus is reported to be the reason in 20% to 67% and male sexual dysfunction commonly accompanies vaginismus. In a study in India, half of men involved had secondary onset erectile dysfunction and develop decrease in desire as well as hostility toward their spouse.[12]

Vaginismus and unconsummated marriage are sometimes being accepted. Vaginismus it self is an uncommonly reported entity. It becomes problem if there is an urge to have children. In a study in India, 25 women attending infertility clinic, 56% of them seeking medical advice before 1 year of infertility and most of them are under 30 years age.[13] Again, culture is playing a big role. In a society that

put women in the position as a person who should have their own children, then it will be a big issue.

Etiology

Before it was correctly identified as a conditioned response, vaginismus was considered as hysterical or conversion reaction as an expression of unconscious problem.[3]

Some author believe that woman who suffer from vaginismus are hostile toward men, it is related to "penis envy" postulate. If a girl does not resolve her "penis envy" than she is likely to develop vaginismus to a men because of her unconscious strong will to castrate a man.[4] On the other hand, according to Kaplan, reports on the result of this have not been established yet.[14]

Dawkins and Taylor divided these women into two groups. The first group consist of those who have not succeeded in reaching sexual maturity. And second is women with personality disturbances and unconsummated marriage.[15]

Therefore, there are two factors contributing to vaginismus internal factors and external factors.

Internal factors are:

1. Personality

   Personality has also been related to vaginismus. Friedman hypothesized that women in unconsummated marriage use a variety of defenses to deal with their conflicting emotion.[4]

   Psychological triggers such as anxiety, stress or past emotional or sexual abuse also play a part. Fear, anxiety, partner distrust, negativity toward sex are among the non physical causes.[16,17]

2. Fear of Pain

   In an interview study of 475 woman with vaginismus Blazer listed fear of pain is a primary cause for abstinence.[18] Approximately 74% vaginismic woman reported fear of pain as their underlying condition.[19]

   Vaginismus is a defensive involuntary response that included in variable phobic attitude toward sex.[20] Not only fear to sex but also fear of getting pregnant, fear to HIV infection and fear of delivery.[21]

3. Organic pathology

   The following are usually become a cause of vaginismus: hymeneal abnormalities, congenital abnormalities, vaginal atrophy and adhesion due to vaginal surgery of radiation, prolapsed uterus, vulvar vestibulitis syndrome, endometriosis, infection, vaginal lesion and tumors, sexually transmitted diseases and pelvic congestion. Organic causes may lead dyspareunia and dyspareunia may become trigger of vaginismus.[4]

   These organic cause can be differential diagnosis for true vaginismus.

External Factors and Environment

1. Misinformation

   Lack of education can lead to inadequate knowledge about sexuality, negative attitude toward sex and ignorance. High moral expectation, strict social system and religious orthodoxy can result in vaginismus also.[4]

   Once again vaginismus is a condition that caused by multifactorial and cross cultural factors.[21]

2. Past Experiences

   It has been argued that experiencing sexual trauma is causal factor in vaginismus. However, in patient with vaginismus there was no significant history of sexual abuse. But an early childhood trauma can lead to negative attitude toward sex that can be continue to vaginismus and other sexual disorder.[4]

3. Relationship

   Vaginismus can comes as a result of a strict, noninformative and sex phobia

mother that will be "inherit" her belief to her daughter, also dominant critical father.[4]

Spouse can be cause or trigger of vaginismus. Some patient with vaginismus has made her spouse had sexual dysfunction.[4]

Diagnosis

Vaginismus diagnosis is made by history, but spesifically analizes the wife's response to sexual intecourse. It was not the sexual situation that evoked the reaction but rather the threatning aspect of it.[11, 22]

There are some condition with vaginismus. Some women could not undergo vaginal examination, some report inability to use tampons, some felt fear and anxiety and vaginal reactions are part of general defense against it.[11, 22]

Symptoms of vaginismus vary according to the severity of vaginismus, Vaginismus can be mild in which different treatment approaches are effective, or severe that makes treatment more complicated.[11]

Vaginismus can be categorized as primary (lifelong), patient has never experiences non painful intercourse or secondary (acquired), patient has previously normal but now experience pain.[21,23] And it is known another subtyped of vaginismus, generalized or situational.[21]

According of Diagnostic and Statistica Manual of mental Disorders (DSM) fifth edition, vaginismus is difficulties with:

a. Vaginal penetration during intercourse
b. Pain during intercourse
c. Fear or anxiety about pain or penetration or contraction of pelvic floor muscles during sex which last for more than 6 months.[21]

Lamont in 1978 classified vaginismus by considering patient's history and behaviour during gynaecologic examination.

Grade 1: mildest, tight vaginal muscles but still abe to relax

Grade 2: muscles are noted to be tight and patient is unable to relax

Grade 3: avoid examination by elevating buttocks

Grade 4: most severe, patient elevating buttocks, retracts and adducts their thigh to avoid examination.

Pacik added the 5th grade with visceral responses such as crying, trembling, shaking, sweating, hyperventilation, nausea, vomitting, unconcious, wanting to jump from bed or to attack the doctor. Subjective feeling that frequently become main complaint of the husband is feeling like hitting the wall while intercourse.[21, 24] Vaginismus is often associated with infertility. Tulla et al. 2016 reported 11 case vaginismus and unconsummated marriage.[20] Although some patients can conceived spontaneusly via incompletesexual intercourse without penetration (ejaculate exteriorly to the vagina).[8] Vaginismus can be egosyntonic, unconsummated marriage can be accepte for both side but can be considered as problem when there is an urge to have children.[4] Desire for pregnancy was the reason to consult to doctors in 60% of cases.[8] Patient with vaginismus more likely to be patient in ART clinic. An ART program implicates vaginal manipulation during Trans Vaginal Ultrasound (TVUS), ovarian stimulation, oocye retrieval and embryo transfer that might pose a significant challenge to these patients.[20]

Differential diagnosis

Vaginismus should be considered as part of differential diagnosis in patient who has no satisfaction in sexual intercourse or do not tolerate penetration.[21]

There are three types of sexual pain in women:

1. Dyspareunia
2. Vaginismus
3. Non sexual pain[13]

Dyspareunia can be caused by herpes simpleks, lichen schlerosis, and another dermatitis type or can be infection, perimenopausal and trauma.[4, 22]

Many different organic factors can lead to vulvovaginal pain through variety or pathways. Organic factor can be combine with other factor such as anxiety, phobia and disgust, lack of sexual knowledge, cultural and religious belief, trauma and abuse. Although unproven with randomized controlled trials, these combination may represent expanation of vulvovaginal pain, dyspareunia and vaginismus.[25]

Treatment

A variety of intervention have been suggested in some case report study. Effective treatment to vaginismus iclude sex education, psychosexual therapy, systematic desensittization, anxiolytic and Botulinum Toxin (botox). While there are few controlled studies on the management of vaginismus, they are limited and poorly designed.[11]

Data collection of 100 couples with vaginismus and treated by sex education, kegel, dilator, anesthesia, antianxiety and cognitive behavioural therapy. The success rate was 36%. Forty eight out of 96 couple needed less than 1 week to consummate marriages. Although 9 patient needed surgical to dilate hymenal ring, cut hymenal septum and to divide labial fusion due to female genital mutilation.[11]

Jindal et al. in 2010 reported that sensate focus in women ws highly effective in their cohort study of 5431 infertile couples in 8 years. Those with grade 3-5 vaginismus required more visit than those with lower grade. Some got pregnancy spontaneusly and some other with assisted reproduction technology.[12]

Case study of 2 patients in Iran has reported of good result with mental imagery and hypnotherapy within less than 6 month.[26] Case report of 1 patient in Turkey using dilator as treatment has been established with good result although did not get pregnancy.[25]

Case report studies in Tunisia reported 4 successful psychotherapy and cognitive behavioural therapy (CBT) but it need longer time to be cured completely (need more than 10 session). Cultural belief and tradition has a major part in vaginismus cases. CBT of these patients should have a very large educational component not only for the patient but also her partner and the whole family.[27] Bhatt et al described study of 25 patient with vaginismus, most of them (21/25) get pregnancy etither natural or by assisted. The most successful method was education in combinaton with dilator and analgesic.[22] Dilator with or without analgesics is for desensitization. Desensitization techniques are applied to woman control their muscle tonicity and relaxation not to open the vagina.[25] There is also term"splash" pregnancy that means that pregnancy can be happened without full sexual intercourse. Even 25% patient can conceived without intercourse.[8,28] "Self" intra vaginal insemination was also been performed in 37 patient in New Delhi with a good pregancy result.[29]

Clinical trial of 241 patient using Botox in combination with dilator reported 171 patients has reach pain free intercourse while 40 of them got spontaneus pregnancy. There were several adverse effect of Botox, stress, incontinensia and blurred vision that resolved within 4 months.[22]

CONCLUSION

Vaginismus can be treated by several modalities. Length of treatment will depend on its grade. More severe, longer time is needed. Vaginismus has a cose relationship to infertility. Goal of treatment is not only to acchive pregnancy but also increase quality of life. Either natural or asssted, vaginismus is

still have to be cured. A great teamwork is required to successfull therapy.

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