

Vulvodynia: An unrecognized diabetic neuropathic syndrome

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ABSTRACT

Vulvar pain syndromes, including vulvodynia, are a common source of morbidity in women and cause much physical and psychological suffering. This brief communication postulates the hypothesis that unexplained vulvar pain may be hitherto undescribed manifestation of painful sensory diabetic neuropathy. It describes the clinical characteristics of vulvodynia and highlights the similarities between this condition and diabetic neuropathy. The hypothesis calls for women presenting with vulvar pain to be screened for diabetes, as well as women with diabetes to be questioned about vulvar symptomatology. The paper hopes to stimulate extensive research in this important, but so far neglected, field of women's endocrine health.

Key words: Chronic vulvar pain, diabetes mellitus, dysfunction, dyspareunia, female sexual, gender, glucose control, hyperesthesia

INTRODUCTION

Vulvar pain is a frequent, yet often neglected, symptom in the gynecology and dermatology clinic. It is also frequently misunderstood, at times due to difficulties in history-taking and physical examination, which may be limited by socio-cultural constraints.

The term 'burning vulva syndrome' was coined in 1976, but replaced in 2003 by the word 'vulvodynia' by the International Society for the Study of Vulvo vaginal Disease (ISSVD).^[1] Vulvodynia was categorized by ISSVD as generalized or localized, and further sub-classified as spontaneous or provoked. The classification was revised again in 2007, when vulvar pain disorders were separated in two segments: Vulvar pain related to specific disorders (infections, inflammatory,

neoplastic neurological) and vulvodynia (generalized, localized).^[2]

The improvements in terminology and classification over the past decade, spear-headed by the ISSVD, however, may have failed to keep pace with the rapid strides made by the diabetes pandemic.

With the massive diabetes epidemic comes a large number of chronic complications, including micro vascular disease such as neuropathy.^[3] There also occurs a greater incidence of infections, such as genito-urinary infections, caused by bacteria and fungi. Much of this morbidity remains unrecognized, undiagnosed, and untreated in spite of Bhima-esque efforts by endocrinologists and diabetologists.

We posit the existence of vulvar pain, or vulvodynia, as a hitherto unrecognized manifestation of diabetic painful sensory neuropathy.

VULVAR PAIN

Chronic unexplained vulvar pain is a common cause of illness in women. Using a self-administered questionnaire in ethnically diverse communities, a 16% prevalence of vulvar pain was observed in women aged 18 to 64 years.

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The prevalence was higher in Hispanic women than in their Caucasian and African American peers and did not change with age. Common adjectives used were ‘chronic burning,’ ‘Knife-like pain,’ and ‘pain on contact.’^[4]

Though the study did not attempt to correlate of diabetes, the presence or absence of diabetes, the symptomatology is strongly suggestive of a description of diabetic neuropathy. Similar results were reported by authors of a web-based survey conducted among American women.^[5]

Most patients with vulvodynia also complain of dyspareunia or sexual dysfunction apart from hyperesthetic symptoms. Some authors report a higher prevalence in younger women or in sexually active women.

No work has been reported, which links diabetes mellitus and vulvar pain. Current classifications^[2] mentions the word ‘neuralgia’ as a cause of vulvar pain, but do not list diabetes as a cause. Recent reviews on the subject also omit any references to diabetes mellitus.^[6,7] Similarly, retrospective studies on the management of vulvodynia mention neither diabetes nor glycemic control in their discussion.^[8] In fact, a recent analysis of co-morbid conditions in women with vulvodynia has identified only irritable bowel syndrome and fibromyalgia as significant associations in its preliminary report.^[9] Diabetes mellitus was not identified, because it was not searched for.

VULVAR PAIN AND DIABETIC NEUROPATHY

Vulvar pain and diabetic neuropathy share the same clinical characteristics. They are diagnosis of exclusions made after eliminating all possible known causes of neural dysfunction. They are clinical diagnosis, which can be supported by use of various symptom questionnaires.^[10,11]

Both conditions are chronic, have subject – dependent subjective symptoms, and have little concordance between symptomatology and signs. The age of the patient is no bar. The adjectives used to describe the pain in vulvar and diabetic neuropathic syndromes are similar; burning, lancinating, knife-life. In both, symptoms may be generalized or localized. The onset of disease may or may not have a specific provoking factor, and the natural history of illness may vary. Both clinical syndromes have a psychosomatic component, and may be associated with sexual dysfunction.

Theses similarities extend to the therapeutic arena as well. In both, treatment is complex as well as difficult. There are multiple management recommendations, which make it difficult to achieve consensus. The international recommendations for the management of vulvodynia

list 12 points.^[12] Virtually all these hold true for diabetic neuropathy in general as well:

1. An adequate pain history should be taken ----
2. Patients with sexual pain should have a sexual history taken-----
3. The diagnosis ----- is clinical
4. A team approach may be necessary -----
5. Combining treatments should be encouraged
6. Patients should be given an adequate explanation----
7. Topical agents should be used with caution -----, A trial of local anesthetic may be considered -----
8. Tricyclic anti-depressants are an appropriate initial treatment -----. Other drugs may be considered, including gabapentin and pregabalin -----^[12]

PATHOGENESIS

Diabetes mellitus may cause vulvar pain in many ways. A common cause of pruritis vulvae (as opposed to painful vulvae) is Candida infection or bacterial infection.^[13] Vulvar pain may also be secondary to urinary tract infection or lower gastrointestinal infection.

Vulvodynia may be secondary to painful sensory diabetic neuropathy, which may be unilateral or bilateral in its distribution. It may present as an isolated symptom or as a part of constellation of other neuropathic abnormalities.^[2]

Vulvodynia may be due to other illnesses, which are common in persons with uncontrolled diabetes mellitus. These include herpetic neuralgia and female sexual dysfunction.^[2]

DIFFERENTIAL DIAGNOSIS

With thus background, it is easy to postulate that vulvar pain may be a hitherto unrecognized variant or presentation of diabetic neuropathy. Not all vulvar pain in women with diabetes, however, may be termed as diabetic neuropathy. Candida and herpetic infections have to be ruled out, as have other inflammatory and neoplastic conditions. Neurological diseases such as pudendal neuralgia must be excluded by history-taking. In pudendal neuralgia, the pain is exacerbated in sitting posture and relieved by standing or lying down.^[14]

CLINICAL IMPLICATIONS

While the management of vulvar pain is on lines broadly similar to those of diabetic neuropathy, our hypothesis hopes to achieve radical change in the clinical approach to women with vulvar pain. All women presenting with vulvodynia must be screened for diabetes mellitus. All patients of vulvodynia who are found to have diabetes must try to achieve tight glycemic control. This will help improve clinical outcomes.

In the diabetology clinic, too, this hypothesis seeks to achieve positive change. All women with diabetes must tactfully be questioned about vulvar pain. This pain must be differentiated from pruritis. It must be realized that in the population-based assessment conducted in Boston, USA, nearly 40% of women chose not to seek treatment.^[4] It is possible that non-addressal of pain, which leads to physical as well psychological suffering, may contribute to poor glycemic control in some of our patients.

Women who do complain of vulvodynia must undergo a detailed history-taking and physical examination. Hyperesthesia can be assessed using a cotton swab test or the Wartenberg's pinwheel. Evaluation of vulvodynia must include an effort to exclude non-diabetic-related causes and must be followed by appropriate management.

The main stay of management is glycemic control, accompanied by pain modifying drugs as used in painful neuropathy.

CONCLUSION

Through this brief communication, we hope to highlight the common occurrence of vulvar pain disorders and its possible link with diabetic neuropathy. This should stimulate further research in this field, and should lead to the listing of diabetes mellitus as a cause of vulvar pain disorders in future classifications of ISSVD. It is possible that novel terminology such as 'diabetic vulvopathy' or 'diabetes-related vulvar pain' be created to describe this clinical manifestation of diabetic neuropathy.

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