

Urticaria: Increasingly Recognised but not Adequately Highlighted Cause of Dyspareunia and Vulvodynia

Sir,

The term vulvodynia applies to a group of symptoms characterised by chronic and often unremitting pain, burning, stinging, irritation or rawness of the vulval area (1). Dissatisfaction with medical advice may contribute to the resentment, frustration and anger often expressed by women who suffer this chronic discomfort. The term dyspareunia indicates pain and discomfort that occurs during intercourse, but also pain that persists after the intercourse. If long continued it may cause considerable marital disharmony. The list of causes of dyspareunia is extensive but nevertheless an organic cause may not be found and the physician is left with the option of enquiring into the patient's psychosocial history (2). At present there is strong evidence that some of the physical urticarias together with contact urticaria should be added to the long list of causes of dyspareunia and vulvodynia as a cause for some of these obscure cases.

Physical urticarias as a group involve the activation of mast cells due to factors in the physical environment and do not clearly rely upon an antigen-antibody interaction (3). Dermographism, the most common type of physical urticaria, is defined as an abnormal wealing response of the skin to gentle stroking.

Symptomatic dermographism is differentiated from simple dermographism by the presence of itching and the lower force threshold required to induce wealing (4). Its principal clinical features are itchy linear weals with surrounding bright red flare at the sites of scratching or rubbing. It is not associated with angioedema (5). We describe here a 25-year-old woman with factitious urticaria, who also suffered prolonged symptoms of vulvodynia and dyspareunia that could not be attributed to any recognised organic or psychosocial causes.

CASE REPORT

A 25-year-old woman was referred to St John's Institute of Dermatology for investigation of chronic urticaria of 8 years' duration. Wearing tight clothes, leaning against hard surfaces or scratching her skin produced intensely itchy weals a few minutes later. Each individual weal lasted less than 1 h. She never had swelling of mouth or throat. She was also deeply concerned about a persistent burning sensation around the vaginal introitus for about 8 years. She produced no history of recent systemic antibiotic or topical steroid use. Prior to admission, her doctor, suspecting cyclic vulvovaginitis, had repeatedly treated her and her partner with systemic and topical anticandidal agents but without benefit. More recently she had also developed a new problem, consisting of severe vulval swelling and pruritus occurring during or after sexual intercourse and lasting for 1 h. The discomfort could be so intense that she had to interrupt the intercourse before her partner's ejaculation. They never used condoms for contraception. These symptoms, which caused deep embarrassment also jeopardized successful completion of coitus.

On examination of the vulval area there was no erythema, oedema, scaling, vaginal discharge or other obvious abnormality. The skin and mucosal surfaces were normal and there was no point-tenderness to cotton-tipped swab palpation of vestibular gland orifices.

Vaginal smear, culture for *Candida* and aceto whitening examination were all negative. Challenge tests for cold, heat, cholinergic and delayed pressure urticaria yielded negative results. Application to the upper back of the patient of 3.5 and 6.7 and 9.4×10^5 pascals, using a calibrated dermatographometer, evoked itchy weals 5 min later and

the patient was diagnosed as having factitious urticaria (syn symptomatic dermographism). Treatment was instituted with cetirizine 10 mg orally once daily and 2% adrenaline cream, applied to the vulval area as required, resulting in significant relief of symptoms.

DISCUSSION

All the numerous well recognised causes of dyspareunia were excluded after a thorough pelvic examination. Considering the fact that most of these abnormalities may cause pain at the time of insertion, on deep penetration but not after the end of intercourse, this patient's dyspareunia may be attributed to the underlying symptomatic dermographism. The dyspareunia, though, had a delayed onset compared to the vulvodynia, as this patient had only had sexual activity for the last 4 years.

There is a reported association of dyspareunia or vulvodynia with dermographism (6). In that case pruritus was not prominent, consistent with the underlying cause which was simple dermographism, as opposed to our case of symptomatic dermographism where pruritus was a leading symptom. Similarly this patient reported significant relief from her vulval symptoms when treated with antihistamines. One of us previously reported a case of dyspareunia in a 34-year-old man as a complication of delayed pressure urticaria (7).

In cholinergic urticaria patients experience the onset of monomorphic symmetrical 2–4 mm pruritic weals within 2–20 min after general overheating of the body, such as may occur with exercise (8). Pruritic weals occur in a generalised distribution and the condition tends to occur in young adults of both sexes. Exercise involved during sexual intercourse could potentially trigger a cholinergic urticaria response. In this case the rash, although not strictly localised in the genital areas, can disturb the partners as effectively as dyspareunia.

It is well recognised that contact urticaria can cause dyspareunia. Lesions occur within minutes to an hour, resolving within a few hours leaving normal skin. More than 30 cases of semen contact urticaria have been reported (9). Itching, burning or swelling may be localized to the site of contact with semen, resulting in regional discomfort or evolving into more widespread urticaria or anaphylaxis. Therapeutically, systemic or precoital intravaginal antihistamines may be effective.

A few cases of contact urticaria to rubber condoms have been reported. In a typical case a woman had recurrent vaginal pruritus and oedema after intercourse, occasionally associated with transient loss of consciousness, while her boyfriend had been using condoms routinely during sexual intercourse. She was sensitive to carbamates that she encountered through the use of Trojan condoms (10).

The primary strategy in treatment of contact urticaria is avoidance of the responsible substance. Oral antihistamines are sometimes useful in blunting the cutaneous response to the contactant.

REFERENCES

- McCay M. Vulvodynia diagnostic patterns. *Dermatol Clinics* 1992; 10: 423–433.

2. De Witt D. Dyspareunia. *Postgrad Med* 1991; 89: 67-73.
3. Orfan N, Kolski G. Physical urticarias. *Ann Allergy* 1993; 71: 205-212.
4. Breathnach S M, Allen R, Milford Ward A, Greaves M W. Symptomatic dermographism: natural history, clinical features, laboratory investigation and response to therapy. *Clin Exp Dermatol* 1983; 8: 463-476.
5. Greaves M W. Chronic urticaria. *N Engl J Med* 1995; 332: 1767-1772.
6. Perniciaro Ch, Alberto S, Bustamante Jr, Gutierrez M. 2 cases of vulvodinia with unusual causes. *Acta Derm Venereol (Stockh)* 1993; 73: 227-228.
7. McFadden J P, Newton J A, Greaves M W. Dyspareunia as a complication of delayed pressure urticaria. *Br J Sex Med* 1988; 15: 61.
8. Jorizzo J. Cholinergic urticaria. *Arch Dermatol* 1987; 123: 455-457.
9. Poskitt B L, Wojnarowska F T, Shaw S. Semen contact urticaria. *J R Soc Med* 1995; 88: 108-109.
10. Belsito D V. Contact urticaria caused by rubber. *Dermatol Clin* 1990; 8: 61-66.

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