

Is patch testing necessary in vulval vestibulitis?

D. NUNNS¹, J. FERGUSON², M. BECK² AND D. MANDAL¹

¹Bolton Centre for Sexual Health, Bolton General Hospital, Bolton, BL4 0JR, UK

²University Department of Dermatology, Salford Skin Hospital, Manchester University, Salford, UK

Allergic contact dermatitis has been suggested as a possible cause of vulval vestibulitis, a condition of unknown aetiology characterized by burning, stinging and dyspareunia, with symptoms localised to the vestibule. To examine this relationship, 30 women with vulval vestibulitis were patch tested using a standard series of contact allergens and a special series relevant to perianal and vulval disorders. Other potential allergens identified by the patients as causing aggravation were also included. There were 5 positive reactions, 4 to nickel and 1 to fragrance mix, though none of these reactions were considered relevant. Our results suggest that allergic contact dermatitis is unlikely to be a primary factor in the development or persistence of vulval vestibulitis. Patch testing patients with vulval vestibulitis cannot routinely be recommended.

Key words: vulval vestibulitis; vulvodynia; patch testing; allergy; lack of clinical relevance.
© Munksgaard, 1997.

Accepted for publication 15 April 1997

Vulval vestibulitis is an unexplained inflammatory condition of the vestibule, characterized by burning, stinging and dyspareunia. It is common, affecting approximately 15% of women attending gynaecology out-patients departments (1). Its diagnostic criteria are specific and include pain on vestibular touch or attempted vaginal entry, tenderness to pressure localized within the vestibule, and clinical findings of erythema either focally or diffusely within the vestibule (2).

The aetiology of vulval vestibulitis remains unknown, but several factors have been suggested: infection with human papilloma viruses, sensitivity to dietary oxalates, vulvovaginal candidiasis and contact dermatitis from topical medicaments (3-5). Many patients complain of local aggravation with topical applications, and believe themselves to be 'allergic to everything'.

To determine whether vulval vestibulitis could be attributed to allergic contact dermatitis, we performed a series of patch tests on women with the disease recruited from a specialist clinic for vulval diseases. To our knowledge, no previous study has specifically addressed the rôle of allergic contact dermatitis in this condition.

Patients and Methods

30 patients with vulval vestibulitis, as defined above, were recruited from a clinic for vulval dis-

eases within a sexual health clinic. Patients with co-incidental vulval dermatoses and microbiological evidence of infection were excluded. All patients were patch tested with European standard series of contact allergens and a special series relevant to perianal and vulval disorders (Table 1). Sanitary wear, condoms and other potential allergens identified by the patients as causing aggravation were also included (Table 1). Patch test readings were assessed according to the international recommendations at 2 and 4 days.

Results

5 out of 30 patients had allergic reactions to constituents of the standard series: 4 were allergic to nickel (++) and 1 to fragrance mix (+). These reactions were considered to be coincidental findings and not relevant to their vulval symptoms. The patient allergic to fragrance mix, for example, had not used any perfumed products on the vulval area.

Patients commonly identified personal make-up, toiletries, soaps ($n=12$), clotrimazole ($n=7$) and hydrocortisone cream ($n=5$) as commonly causing discomfort on application. There were no positive allergic reactions to these substances.

Table 1. Patch tests additional to the European standard series

Perianal series	Vulval series	Patients products (no. patients)
resorcinol	amino azobenzene	make-up, soaps,
procaine hydrochloride	Disperse Orange 3	shampoos, toiletries
cinchocaine hydrochloride	Disperse Yellow 3	(<i>n</i> =12)
tetracaine hydrochloride	Disperse Red 1	clotrimazole (<i>n</i> =7)
lidocaine hydrochloride	Dispersed Red 17	sanitary towels (<i>n</i> =7)
benzocaine	Dispersed Blue 3	hydrocortisone cream
clinnamyl alcohol	toluene sulfonamide formaldehyde resin	(<i>n</i> =7)
clinnamaldehyde	benzalkonium chlorolide	Tampax (<i>n</i> =6)
eugenol		condoms (<i>n</i> =3)
α -amyl-cinnamaldehyde		Daktacort (<i>n</i> =2)
hydroxycitronellal		lignocaine gel (<i>n</i> =2)
geraniol		zinc oxide cream (<i>n</i> =2)
iseugenol		washing powder (<i>n</i> =1)
oak moss absolute		toilet paper (<i>n</i> =1)
Amerchol L-101		nail polish (<i>n</i> =1)
pramoxine		Orthogynestrol (<i>n</i> =1)
benzyl benzoate		Vaseline (<i>n</i> =1)
framycetin		E45 cream (<i>n</i> =1)
lanolin		swimming pool
Euxyl K400		chemicals (<i>n</i> =1)
clioquinol		
chlorquinaldol		
chlorhexidine digluconate		
phenylephrine hydrochloride		

Discussion

Vulvodynia is defined as chronic vulval burning in the absence of any diagnostic physical findings, and affected women often complain of irritation, soreness and stinging (6). Vulval vestibulitis is one of the subsets of vulvodynia and such patients constitute a substantial proportion of our vulval clinic attendances. Various infectious agents have been suggested as a cause of vulval vestibulitis. However, recent sensitive DNA hybridization techniques suggest that the much-quoted link between HPV and vulval vestibulitis is co-incidental rather than causal (7). The possibility that an acute infectious insult to the vulval skin, such as candidal vulvovaginitis, can persist as vulval vestibulitis in spite of adequate treatment with anti-fungal preparations has been raised, but serial vaginal cultures from patients show no microbiological evidence of candidal infection (3). These aetiologies are speculative and, as yet, there is no satisfactory explanation for this chronic vestibular condition (8).

The management and treatment of the condition is essentially symptomatic. The rôle of surgery remains to be defined; short-term success rates of up to 70% have been reported in women with intractable symptoms, following a modified perineoplasty (9). However, vaginal scarring and symptom relapse preclude surgery as the treatment of choice for most women with vulval vestibulitis.

Topical corticosteroids form the basis of conservative therapy for vulval vestibulitis and are

widely prescribed to such patients. Consequently, our patch test series included budesonide and hydrocortisone 17-butyrate, betamethasone valerate, clobetasone butyrate, clobetasol propionate (all 1 % eth.) and tixocortol pivalate (as a marker of sensitivity to hydrocortisone) to screen for corticosteroid allergy. Furthermore, because excipients in medicament bases are potential allergens (10), we also tested the prescribed creams as well as ointment preparations of corticosteroids used by patients, together with commonly recognized excipient allergens. There were no allergic reactions to these or any of the other creams or ointments previously identified by the patients as causing aggravation. There were 4 patients who were allergic to nickel, but this number is not unexpected due to the prevalence of nickel allergy within the general female population.

The low threshold of vulval skin to irritants is a well-recognized phenomenon. Regional variations occur in the response of the skin to topical agents: irritants such as benzalkonium chloride and maleic acid cause more intense irritant contact dermatitis on vulval skin than other skin (11). When compared to forearm skin, vulval skin has significantly higher transepidermal water loss and percutaneous absorption, suggesting that its stratum corneum functions less efficiently (11).

Although allergic contact dermatitis has been suggested as a cause of vulval vestibulitis, no formal study has objectively assessed this possibility with patch testing. Other authors have reported al-

lergic contact dermatitis to be frequent among patients with vulval dermatoses (10, 12, 13). In one such of 135 patients, 29% had relevant contact allergies, but this series included only 5 patients with vulvodynia (10). Medicaments (ethylenediamine in Tri-Adcortyl cream, neomycin, framycetin and clobetasol propionate) were responsible for the majority of reactions. In another series of 121 patients with vulval dermatoses (13), contact sensitivity was common, with 49% of patients having a relevant allergic reaction. Vulval symptoms resolved or were significantly improved in 55.4% of this group when the offending allergen was avoided. This group included 11 patients with vulvodynia and 2 with vulval vestibulitis. By contrast, our results suggest that allergic contact dermatitis is *unlikely* to be a primary factor in the development or persistence of vulval vestibulitis. In spite of exposure to a wide range of medicaments, toiletries and over-the-counter creams, this group of patients does not appear to be at high risk of sensitization from these products. Thus, patch testing patients with vulval vestibulitis routinely cannot be recommended. Nonetheless, it is important for clinicians to recognise that other vulval disorders may be complicated by allergic contact dermatitis and that the development of an inflammatory dermatosis is an indication for referral to a dermatologist with a view to patch testing. Although we do not routinely recommend patch testing with vulval vestibulitis, it may occasionally have a rôle in reassuring the patient that they have been fully investigated.

In the absence of a specific treatment for patients with vulval vestibulitis, we recommend good vulval hygiene, the use of bland emollients, judicious use of low potency corticosteroids in ointment form and, above all, avoidance of irritants.

References

1. Goetsch M F. Vulval vestibulitis: Prevalence and historic features in a general gynaecologic practice population. *Am J Obstet Gynaecol* 1991; 164: 1606-1611.
2. Friedrich E G. Vulval vestibulitis syndrome. *J Reprod Med* 1987; 32: 110-114.
3. Turner M L C, Marinoff S C. Association of human papilloma virus with vulvodynia and the vulval vestibulitis syndrome. *J Reprod Med* 1988; 33: 533-537.
4. Solomons C C, Melmed M H, Heitler S M. Calcium citrate for vulval vestibulitis. *J Reprod Med* 1991; 36: 880-882.
5. Periciarno C, Bustamante A S, Gutierrez M M. 2 cases of vulvodynia with unusual causes. *Acta Dermato-venereologica* 1993; 73: 227-228.
6. Lynch P J. Vulvodynia: a syndrome of unexplained vulval pain, psychological disability and sexual dysfunction. *J Reprod Med* 1985; 31: 773-780.
7. Dennerstein G J, Scurry J P, Garland S M et al. Human papilloma virus vulvitis: a new disease or an unfortunate mistake? *Br J Obstet Gynaecol* 1994; 101: 992-998.
8. Pyka R E, Wilkinson E J, Friedrich E G, Byron P C. The histopathology of the vulval vestibulitis syndrome. *Int J Gynaec Pathol* 1988; 7: 249-257.
9. Bornstein J, Zarfati D, Goldik Z, Abramovic H. Perineoplasty compared to vestibuloplasty for severe vulval vestibulitis. *Br J Obstet Gynaecol* 1995; 102: 652-655.
10. Marren P, Wojnarowska F, Powell S. Allergic contact dermatitis and vulval dermatoses. *Br J Dermatol* 1992; 126: 52-56.
11. Britz M B, Maibach H L. Human cutaneous vulval reactivity to irritants. *Contact Dermatitis* 1979; 5: 375-377.
12. Goldsmith P C et al. The frequency of allergic patch test reactions in Women with vulva and perianal dermatoses. *Jadassohn Centenary Congress. European Society of Contact Dermatitis Meeting* 1996; abstr 148.
13. Lewis F M, Shah M, Gawkrödger D J. Contact sensitivity in pruritis vulvae. Patch test results and clinical outcome. *Jadassohn Centenary Congress. European Society of Contact Dermatitis Meeting* 1996; abstr. 266.

Address:

D. Nunns
Department of Obstetrics and Gynaecology
Leicester Royal Infirmary
Leicester, LE2 7GT
UK

This document is a scanned copy of a printed document. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material.