

Short Communication

Patch testing in vulval dermatoses: how relevant is nickel?

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Between 1992 and 1997, 55 women with vulval dermatoses were patch tested to the European standard series, a vulval series and other relevant allergens. The principal symptom was pruritus in 49 patients and pain or burning in 6. The mean duration of symptoms was 4.4 years (range 0.75 to 15 years) and the mean age was 50.3 years (range 14 to 78 years). Table 1 shows the clinical diagnosis prior to patch testing. Relevance of positive reactions was assessed with a follow-up questionnaire.

Results

36 patients (65%) had 1 or more positive reactions. 14 had a single positive and 22 multiple positive reactions (maximum 11). There was hypersensitivity to medicaments in 15 patients, fragrances in 12 and dyes in 4. Nickel was noted as the only positive reaction in 6 patients, and together with other reactions in 11. Of 19 women with negative patch tests, 12 (63%) had vulvodynia or pruritus with no clinical abnormality (Tables 1, 2).

Questionnaires were returned by 22 of the 36 women with positive reactions and 16 (73%) had noted symptomatic improvement following allergen avoidance. The majority had dermatitis evident clinically and relevant allergens included; nickel (8 cases), fragrance mix (5 cases), parabens (2 cases), Disperse Red (1 case) and Amerchol L-101 (1 case). Allergen avoidance coincided with improvement in 1 patient with lichen sclerosus who had hypersensitivity to fragrance mix. 2 patients with pruritus and clinically-normal vulvas noticed no change after avoiding perfumed products, despite proven sensitivity to fragrances (Tables 1, 2).

Discussion

These results add to the growing body of evidence for the rôle of contact sensitivity in some vulval dermatoses (1–5). Hypersensitivity to medicaments and fragrances is common and, in addition, we found a higher frequency of hypersensitivity to dyes and nickel than previous studies. The rate of nickel hypersensitivity was 31%, compared to 11% and 22% in similar studies from the UK (1) and Australia (5), and 16% in our general female patch test population.

The relevance of nickel sensitivity in vulval pruritus has been debated (1, 6). In our series, 8 patients, including 5 in whom nickel was the only positive reaction, felt that nickel avoidance coincided with improvement in their symptoms. All were advised to reduce direct contact with nickel, but 1 required additional dietary exclusion before any benefit was noted. It is unclear whether vulval dermatitis resulted from the direct transfer of nickel between hands and perineum, or whether the vulval skin was indirectly affected following exposure to nickel at other sites. In agreement with a recent study (7), we have shown a low frequency of contact sensitivity in patients with vulvodynia, and patch testing is generally unhelpful in this sub-group. However, it is a useful investigation in women with vulval dermatitis, and we would suggest that nickel may be a more important allergen than has generally been thought.

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Table 1. Clinical diagnosis, positive reactions and questionnaire outcome

Clinical diagnosis (numbers)	Patients with positive patch tests	Positive patch test breakdown					Replies to questionnaire	Outcome	
		meds	frags	dyes	nickel	others		improved	unchanged
dermatitis (32)	26	11	8	2	12	3	15	13	2
lichen sclerosus (5)	4	2	2	1	0	0	2	1	1
vulvodynia (6)	1	0	1	0	2	0	1	0	1
pruritus; no clinical abnormality (12)	5	2	1	1	3	0	4	2	2

Table 2. Allergens giving positive patch test reactions

	Test substances	No. positive reactions
<i>Metals</i>		
nickel sulfate	5% pet.	17
potassium dichromate	0.5% pet.	1
cobalt chloride	1% pet.	5
<i>Fragrances</i>		
fragrance mix	8% pet.	11
isoeugenol	1% pet.	3
balsam of Peru	25% pet.	3
oak moss absolute	1% pet.	3
cinnamic aldehyde	1% pet.	2
<i>Medicaments</i>		
colophony	20% pet.	2
parabens	15% pet.	3
benzocaine	5% pet.	1
cinchocaine hydrochloride	5% pet.	3
tixocortol pivalate	1% pet.	1
budesonide	0.1% pet.	1
Amerchol L-101	100% pet.	2
cetylstearyl alcohol	20% pet.	2
framycetin	20% pet.	3
neomycin	20% pet.	3
benzalkonium chloride	0.1% aq.	1
<i>Textile dyes</i>		
p-phenylenediamine	5% pet.	1
aminoazobenzene	0.25% pet.	1
Disperse Orange 3	1% pet.	1
Disperse Red 1	1% pet.	2
Disperse Yellow 3	1% pet.	1
<i>Others</i>		
primin	0.01% pet.	1
thiuram mix	1% pet.	1
thimerosal	0.1% pet.	2

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