

Contact sensitivity in vulval lichen simplex chronicus

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The vulva has a decreased barrier function towards irritants (1, 2), and might also allow increased allergen penetration. The aim of this study was to evaluate the rôle of contact hypersensitivity in vulval lichen simplex chronicus (VLSC).

Patients and Methods

In a 3-year period, of 270 women who came to a vulval clinic, we selected only those affected by VLSC. 44 women (mean age 47.29 years, range 23-85) were afflicted by VLSC (mean duration 38.2 months, range 3-120), VLSC being histologically confirmed in 26. Disease was localized to the vulva in 34 women, while 10 had both anal and genital involvement. 6 women were atopic and 4 had allergic contact dermatitis of the hands. Almost all patients (41 out of 44) had already used topical medicaments (antifungals, antibiotics, hormones), cosmetics and emollients.

All were patch tested with the GIRDCA standard series, perfumes series, preservatives series, emulsifiers series, a series of medicaments (gentamycin 20% pet., retinol acetate 0.01% pet., α tocopherol 20% pet., miconazole nitrate 2% pet., clotrimazole 1% pet., econazole nitrate 1% pet., hydrocortisone 25% pet., prednisolone 5% pet.) and, when available, their own products. A subgroup of 16 women were also tested with a series of corticosteroids (clobetasol-17-propionate 0.5% pet., betamethasone-17-valerate 1% pet., budesonide 0.1% pet., hydrocortisone-17-butyrate 1% eth.). Tests were read at D2, D3 and, for corticosteroids, also at D7.

Results

21 out of 44 patients showed contact hypersensitivity (48%); 11 had more than 1 positive reaction. 19 patients

were positive to 12 allergens of the GIRDCA standard series (25 reactions) (Table 1). 19 reactions were found to other series, as shown in Table 2. No reactions were found to the patients' own products.

Discussion

Few publications specifically relate to contact hypersensitivity of the anogenital region (3-6). Testing with comparable series of allergens in VLSC, we found a sensitization % similar to those previously reported by Marren et al. (4) in vulval dermatoses (47%) and Goldsmith et al. in women with anogenital dermatoses (39%) (6); higher %s of 65% and 78% were observed by Lewis et al. (5) and Doherty et al. (3), respectively, in pruritus vulvae.

Although nickel was the most frequent allergen observed, we did not consider it relevant. Positive reactions to perfumes, preservatives and emulsifiers, in contrast, allowed us to implicate numerous topical products. Active pharmaceutical ingredients, in the GIRDCA standard series and drugs and corticosteroids series, were positive in only 5 patients (quinoline mix 1, neomycin 1, benzocaine 1, and gentamycin 2). However, adding these 5 positive reactions to active ingredients to those found

Table 2. Patch test results: additional series

Series	No. positive patients	Allergens	No. reactions
perfumes	3	geraniol 1% pet.	1
		cinnamic aldehyde 1% pet.	1
		isoeugenol 1% pet.	1
		hydroxycitronellal 1% pet.	1
		musk oak 1% pet.	2
		cinnamic alcohol 1% pet.	2
preservatives	4	Bronopol 0.5% pet.	1
		benzalkonium chloride 0.1% pet.	1
		phenylmercuric nitrate 0.05% pet.	1
		phenylmercuric acetate 0.05% pet.	2
emulsifiers	3	Amerchol L-101 50% + 25% solid paraffin pet.	2
		Eucerin as is	1
		sorbitan sesquioleate 20% pet.	1
		gentamycin 20% pet.	2
drugs and corticosteroids	2		

Table 1. Patch test results: GIRDCA standard series

Allergen	No. reactions
nickel sulfate 5% pet.	8
thimerosal 0.1% pet.	4
fragrance mix 8% pet.	3
PPD 1% pet.	2
quinoline mix 6% pet.	1
diaminodiphenylmethane 0.5% pet.	1
neomycin 20% pet.	1
colophony 20% pet.	1
ammoniated mercury 1% pet.	1
wool alcohols 30% pet.	1
balsam of Peru 25% pet.	1
benzocaine 5% pet.	1

to excipients in the preservatives and emulsifiers series, 20 medicament allergies were found in 12 women (27%). Similar results were previously reported by other authors (3, 5).

Excluding nickel sulfate, PPD, diaminodiphenylmethane and thimerosal, which we did not consider relevant, we judged 26 positive reactions as relevant to VLSC in 12 women. We found that in such patients, topical medicaments, both their active ingredients and their excipients, were the most relevant allergens. While Lewis et al. (5) report a high % of relevance (58%), Marren et al. (4) and Goldsmith et al. (6) report 29% and 28%, respectively. Similarly, we found a % of 27% (12 positive women out of the 44 tested). Goldsmith et al. (6) stressed that more relevance was found when dermatoses involved the perianal area. The small number of cases with anal involvement in our series did not allow us to confirm or deny this. The majority of relevant allergies were found with series other than the GIRDCA standard series. Extensive patch testing of this type is particularly recommended in patients with long histories of VLSC and in non-responders to conventional treatments.

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Airborne allergic contact dermatitis from mercury in a chemistry student

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There exists continuing controversy with respect to the spectrum of clinical manifestations of mercury allergy and to the clinical interpretation of patch test reactions to mercury compounds (1).

(D2++, D3+++), thimerosal (D2-, D3++), phenylmercury borate (D2++, D3+++), phenylmercuric nitrate (D2+, D3+), amalgam (D2++, D3++) and mercury (D2++, D3++).

Case Report

A 20-year-old woman presented with acute macular erythema on the face, neck and forearms, developing into eczema over the next few days. This reaction had developed, like 2 other eruptions in previous months, on handling powdery mercury chloride compounds during a laboratory exercise that was part of her university chemistry studies. She had not had any dental fillings nor been vaccinated in recent years. There was a past history of allergic rhinoconjunctivitis from cats and house dust.

Prick testing showed immediate reactions to allergen extracts of birch pollen, house dust mites (*D. pteronyssinus*, *D. farinae*) and cat. Patch tests were performed with the European standard series, and series of preservatives, disinfectants, fragrances and metals. She showed positive reactions to mercury-(II)-amide chloride

Comment

Mercury as an allergen may be encountered in its metallic form (e.g., in amalgam-based dental fillings), as an organic compound (e.g., phenyl mercury salts) or in its inorganic form (e.g., mercury chloride compounds) (1). To mercury in amalgam fillings, allergic contact reactions have been described as stomatitis, oral lichenoid lesions or perioral facial eczema (2-4). On the other hand, patch test reactions to mercury compounds may occur without any evident clinical relevance, as reflected in ongoing discussion about thimerosal sensitisation (5-7).

This patient developed eczematous reactions on uncovered skin on airborne contact with powdery mercury chloride compounds. However, without any other identifiable exposure to mercury, particularly not to dental fillings, she showed patch test reactions to a variety of

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