

Patch testing with lower concentrations of chromate and nickel

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Key words: chromate; nickel; lower patch test concentrations; shoes; allergic contact dermatitis; coinage. © Munksgaard, 1997.

In the late 1970s in Poland, 73% of a group of 250 consecutive chromate-positive patients with dermatitis, had relapses or exacerbations from shoes (45.6% of the patients reporting the feet as the commonest site of dermatitis) (1). More recently, the development of shoe dermatitis in chromate-positive patients has seemed less frequent. For this reason, 38 chromate-positive patients were tested with lower concentrations of chromate, and asked about foot dermatitis. The results are shown in Table 1. Foot dermatitis was found to be more frequent in patients also reacting to lower concentrations of potassium dichromate. (Since not all patients consented, the patients tested were not consecutive, and the table therefore does not show the current frequency of shoe dermatitis in chromate-positive patients).

Table 1. Occurrence of shoe dermatitis in patients reacting to various chromate concentrations

Lowest chromate concentration (%) eliciting positive patch test	No. of patients reacting	% of patients with foot dermatitis
0.5	3	0
0.25	7	42.9
0.1	6	33.3
0.05	8	50.0
0.025	9	66.6
0.01	5	100.0

Table 2. Results of patch tests with coin in patients positive to various concentrations of nickel sulfate

Lowest nickel concentration (%) eliciting positive patch test	No. of patients reacting	% of patients reacting to coin
5.0	16	18.7
2.5	9	77.7
1.25	11	100.0
0.62	8	100.0
0.3	4	100.0
0.15	17	100.0

After many years, coins of the currency denomination that caused dermatitis are again being used in Poland. For this reason, we tested 65 patients positive to nickel with lower concentrations of nickel sulfate and a coin (10 *groszy*). On the introduction of the coins, we were told that they were 25% nickel. Table 2 demonstrates that all patients positive to 1.25% nickel sulfate were also positive to the coin.

While patch tests with lower chromate concentrations seem to provide useful information about the potential for shoe dermatitis, those with lower concentrations of nickel are probably less useful in predicting tolerance to coinage.

Reference

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Lack of contact allergy in consecutive women with vulvodynia

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Key words: vulvodynia; contact allergy; contact dermatitis; nickel; oral provocation test. © Munksgaard, 1997.

Vulvodynia is defined as chronic vulval burning, stinging, irritation or rawness (1); introital dyspareunia is often a major complaint. It should be differentiated from pruritus vulvae, which is characterized by chronic

itching, and is a diagnosis of exclusion as it may be a presenting feature of other vulval skin diseases, (2, 3). Contact has previously been described in 1 of 5 women with vulvodynia (4).

Patients and Methods

From 1994 to 1996, a total of 18 women with vulvodynia were consecutively referred to our patch test clinic. Clinical examination and vulval biopsies showed no signs of other skin or mucosal diseases. None of the women had local erythema, oedema or lichenification. Tenderness on pressure (cotton swab) was absent in all. Koilocytosis was described in 10 and minimal non-specific inflammation in 3. None were atopic and only 2 had known allergy to nickel. None had evidence of candidiasis, bacterial vaginosis, trichomonal infection, chlamydia or gonorrhoea. All were tested with the European standard series, a medicament series, topical corticosteroids and their own topical products.

Results

3 women had a + reaction to nickel at 2 and 3 days. All other patch tests were negative. Oral placebo-controlled provocation with nickel did not elicit a flare of symptoms in these 3 women.

Discussion

In this population of 18 women with vulvodynia, allergic or systemic contact reactions were of no, or minimal,

importance. 4 women with negative patch tests received prednisolone 30 mg daily for 1 week without effect, further excluding contact allergy as a significant factor. Previous studies have demonstrated contact allergy in women with chronic vulval dermatoses, such as lichen sclerosus, lichen planus and eczema (4, 5). However, women with vulvodynia seem to be at low risk of developing contact allergy, possibly because topical medications are ineffective, and may therefore be applied less, in this condition.

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Crescendo reactions to sodium lauryl sulfate and retinoic acid in irritant patch tests

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Key words: irritant patch test; kinetics; crescendo reaction; sodium lauryl sulfate; retinoic acid. © Munksgaard, 1997.

Between 2 (D2) and 3 day (D3) readings, allergic patch test reactions have been described as crescendo, and irritant patch test reactions as descrecendo (1, 2).

Patients and Methods

34 patients, without a history of atopy, were patch tested with 60 µl sodium lauryl sulfate 0.5% aq. and 60 µl retinoic acid 0.05% eth. in large Finn Chambers®. The

test substances were applied on the upper back. The patches were removed at D2; reactions were recorded according to ICDRG recommendations (3) at D2 and D3.

Results

When comparing the test reactions at D2 and D3, there were crescendo reactions (increased scores) to sodium lauryl sulfate in 17 patients (50%), no change in 16

Table 1. Patch test results with sodium lauryl sulfate (SLS) 0.5% aq. and retinoic acid (RA) 0.05% eth.

Test substance	D2	D3	Kinetic of test reactions	% (n)
SLS	0 (++++/++++)	0 (++++/++++)	unchanged	47% (16/34)
SLS	+ (++++/++++)	0 (++++)	descrecendo	3% (1/34)
SLS	0 (++++)	+ (++++/++++)	crescendo	50% (17/34)
RA	0 (++++/++++)	0 (++++/++++)	unchanged	65% (22/34)
RA	+ (++++/++++)	0 (++++)	descrecendo	35% (12/34)
RA	0 (++++)	+ (++++/++++)	crescendo	0% (0/34)

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