

Merbromine-induced pustular contact dermatitis

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Key words: merbromine; contact dermatitis; pustular dermatitis; disinfection; antimicrobials; medicaments. © Munksgaard, 1999.

Case Report

In less than 24 h, a 34-year-old woman had developed a well-defined erythematous patch on her left 2nd finger, rapidly followed by superficial pustules on red oedematous skin. Itching was noticed. The rest of the skin was clear. The onset of the eruption had been a few hours after the first-aid application of a ready-to-use compress, saturated with merbromine, following a pin-prick of the same finger. She reported no prior skin damage and no other product had been used. A topical corticosteroid was prescribed and the skin pustulation and redness cleared within a few days.

The pustular dermatitis seemed clearly to be related to application of the topical antimicrobial, but our patient refused to undergo patch testing with sodium fluorescein and mercurials to confirm this hypothesis. We considered that sensitization to mercurials was likely due to repeated use of Mercurochrome® for wound disinfection, from her childhood onwards.

Comment

We believe that the circumstantial evidence and clinical picture support the diagnosis of a merbromine-related adverse effect. The pustular dermatitis confined to one finger in our case was unusual, whereas eczematous and irritant lesions from organomercurial applications have

frequently been reported (1, 2). The pustulation of the skin may have been either due to irritancy or to delayed hypersensitivity to merbromine (3). Mercury compounds are strong sensitizers and more tissue-toxic than their time-honoured use would suggest (4, 5). Moreover, absence of a proper scientific basis for use of mercurials is correlated with very little merit as antibacterials. Delivery systems containing organomercurials could easily be left out of wound care, to reduce the incidence of "antiseptic" medication-related contact dermatitis (5). Restricting commercialization of mercury compounds probably remains a task of public health policy, particularly in Western Europe.

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Nickel allergy in a trumpet player

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Key words: nickel; trumpet; allergic contact dermatitis; musical instruments; occupational; airborne. © Munksgaard, 1999.

Musicians are prone to various cutaneous afflictions, including 'fiddler's neck', 'guitar nipple', 'guitarist's groin', 'cellist's chest', 'cello knee', 'cello scrotum', 'harpist's fingers', 'clarinetist's cheilitis' and 'flautist's chin' (1).

Case Report

A 20-year-old woman presented with a 4-month history of episodic erythema around her mouth and wheals on

her eyelids and lips after blowing the trumpet. She had also noticed erythema on her ring finger and neck when she had worn a ring and a necklace over the past few months. She was a music student and had played the same trumpet for 6 years.

Patch tests showed a + reaction to nickel sulfate 2.5% pet. and negative reactions to other metals, including aluminum, gold, cobalt, zinc, silver, copper and mercury (Table 1).

For the subsequent few weeks, she suffered from no skin eruption because she avoided practicing the trumpet and wearing metal accessories. She developed itching and rash on her face when visiting a metal factory to have plastic applied to the mouthpiece of her trumpet. She then had no further relapses of her dermatitis.

Table 1. Patch test results with metals

Metals		Results	
		D2	D3
aluminum chloride	2% aq.	–	–
chromium sulfate	2% aq.	–	–
silver bromide	2% pet.	–	–
potassium dichromate	0.5% pet.	–	–
nickel sulfate	2.5% pet.	+	+
gold sodium thiosulfate	0.5% pet.	–	–
zinc chloride	0.5% pet.	–	–
cobalt chloride	2% aq.	–	–
ferric chloride	2% aq.	–	–
platinum chloride	0.5% aq.	–	–
mercuric chloride	0.05% aq.	–	–
copper sulfate	1% aq.	–	–

Comment

Nickel is the most frequent metal contact allergen (2). Nickel sensitivity was observed in 4.5% in the general population, in 8% of females and 0.8% of males (2). At the time of testing, 34% of the nickel-sensitive subjects showed eczema (2). In our hospital, out of 24 patients patch tested with the same metal series for 5 months, 8 (33.3%) had positive reactions to nickel sulfate 2.5% pet.

Some other dermatitis of musicians is due to nickel allergy (3, 4), a case of guitar-string dermatitis, for example (3). Nickel sensitivity may also be a cause of 'flautist's chin' (4). To our knowledge, there are no previous reports of nickel allergy in a trumpet player.

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Fixed drug eruptions due to betalactams and other chemically unrelated antibiotics

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Case Reports

Case no. 1

A 36-year-old man, treated for pharyngitis with cefaclor 500 mg, developed pruritic blisters on the glans penis and edema of the prepuce, with local hyperpigmentation, 16 h later. 8 months later, he experienced another similar reaction after taking ciprofloxacin 500 mg, with the addition of aphthous ulcers on the oral mucosa and odynophagia.

Patch tests on previously involved and uninvolved skin, with cefaclor and ciprofloxacin at 10% in petrolatum (pet.), were negative. Oral challenges with clindamycin, roxithromycin, tobramycin and doxycycline were well tolerated. 12 h after oral provocation with trimethoprim-sulfamethoxazole, he developed a fixed drug eruption (FDE) on the genitals.

Case no. 2

A 38-year-old man, being treated with amoxycillin 500 mg, presented with pruritic erythematous lesions on the hands and genitals. Patch tests with trimethoprim-sulfa-

methoxazole 10% pet. and amoxycillin 10% pet., on the back and on previously involved skin, were positive (D2 ++++) to amoxycillin.

Oral provocation was made with cotrimoxazole, and 24 h later, he developed erythematous-violaceous lesions on the hands (palms and interdigital spaces) and genitals. He was also challenged with roxithromycin (150 mg), with complete tolerance.

Discussion

Betalactams can cause various adverse reactions, mostly IgE-mediated, FDE being an unusual reaction to penicillin derivatives (1, 2). Moreover, the occurrence of FDE from chemically-unrelated drugs in the same patient is rare (3, 4), this being known as "polysensitivity" (5). Patients with FDEs have a higher frequency of HLA B₂₂ and HLA CW₁ antigens than the general population (6).

Patch testing is a simple and safe method to identify certain causative agents of FDE, but, if negative, cannot be relied on (7). In such cases, oral challenge remains