

Short Communication

Allergic contact dermatitis from an electronic facial toner

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Case Report

A 38-year-old woman presented in November 2000 after 2 episodes of upper lip and periorbital swelling requiring attention at Accident and Emergency. Each episode was associated with facial erythema, wheeze and tachycardia. Self-administration of antihistamine did not relieve her symptoms and she was treated with systemic cortico-

steroids on the 1st occasion. She also displayed a scaly erythematous rash over the back of her neck, under her chin and anterior neck, and over her knees and legs. Her mixture of immediate and delayed-type hypersensitivity symptoms had no obvious trigger. She was investigated for food allergy with IgE and RAST tests for mixed foods and was patch tested to the European standard series and her own products using Finn Chambers on Scanpor tape. Her eczema responded to a moderately potent topical corticosteroid and an emollient, and she was commenced on cetirizine.

Her immunopathology results showed borderline anti-nuclear factor, Ro and La, with a low C4 complement level. Patch test readings at D4 showed a ++ reaction to para-phenylenediamine and +++ to nickel. Dimethylglyoxime testing of her facial toning machine showed a strong positive to the metal applicator pad (Fig. 1), and she was given information on nickel and PPD avoidance.

Discussion

Both contact dermatitis and contact urticaria have been reported from patients with a history of frequent nickel contact (1, 2). Nickel is released from nickel-containing alloys by the action of sweat, blood or physiological saline. Although the majority of cases of nickel allergy are due to nickel-plated jewellery (3), nickel-containing alloy may have the potential to sensitize individuals (2).

Other common exposures to nickel include wrist-watches, spectacle frames, coins, metal clothing, buckles and the electroplating industry (4). Medical instruments, such as infusion needles, electromyography needles (5), dental prostheses (6) and TENS electrodes (7), have also been shown to cause nickel allergy.

The detection of a nickel-containing electrode on our patient's facial toning machine by the dimethylglyoxime spot test (8) documents a new route of nickel sensitization, of which, to our knowledge, this is the 1st report.

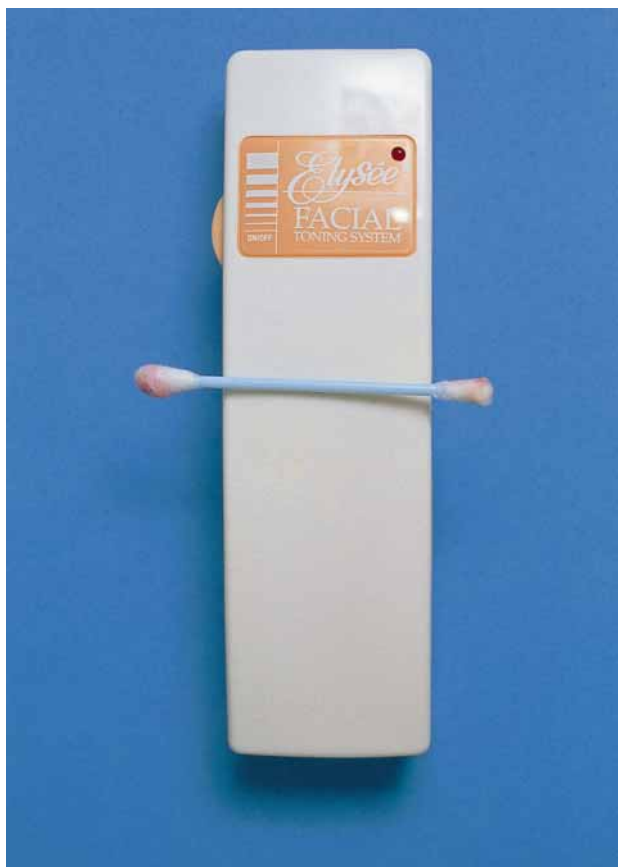


Fig. 1. Electronic facial toner showing positive dimethylglyoxime test.

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