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Airborne allergic contact dermatitis caused by methylisothiazolinone in a child sensitized from wet wipes

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Methylisothiazolinone (MI) is causing an epidemic of allergic contact dermatitis in Europe (1–4). We describe a 3-year-old girl sensitized from MI in wet wipes who later developed facial dermatitis twice, as a result of MI being emitted from freshly painted walls in a new apartment.

Case Report

A 3-year-old girl with no history of atopic dermatitis was referred from a paediatric department because of recalcitrant perioral dermatitis of duration 10 weeks (Fig. 1); this had initially been treated as impetigo with systemic and topical antibiotics, with little or no effect. Topical hydrocortisone/miconazole had a limited effect. The patient was treated as an inpatient with topical fusidic acid and betamethasone 17-valerate (Fucicort™), which improved the dermatitis. Microbiological and fungal cultures were negative.

Patch tests were performed with the European baseline series (TRUE Test™; SmartPractice, Hillerød, Denmark) supplemented with the remaining baseline allergens in Finn Chambers® on Scanpor® tape (SmartPractice, Phoenix, AZ, USA). The patient was also tested with her own products. The tests showed positive reactions to methylisothiazolinone/methylisothiazolinone (++ on D3; + on D7) and methylisothiazolinone 0.02% aqua (+++ on D3). There was also a positive reaction to Fucidin™ cream 'as is' (+ on D3), but there were no positive reactions to the Fucidin™ ointment and fusidic acid sodium salt 2% pet. (Chemotechnique Diagnostics, Brøndby, Denmark), suggesting that a vehicle substance



Fig. 1. Facial allergic contact dermatitis caused by methylisothiazolinone emitted from freshly painted walls.

in the Fucidin™ cream was the allergen. No further patch testing was performed to reveal the culprit. A re-examination of the history of exposure showed that, as an infant, the girl had suffered from chronic diaper dermatitis lasting for 18 months. The mother remembered using Huggies™ wet wipes every day during that period, both in the diaper area and as a cleaning agent for the hands. When the facial dermatitis appeared, the family had just moved to a newly painted apartment. Furthermore, the family found a fabric softener, hair conditioner and shampoo containing MI. Five months after the patient had been discharged from the department of dermatology, the family again moved to a newly painted

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apartment; the facial dermatitis recurred for a few weeks, and finally cleared after topical treatment.

Discussion

Huggies™ wet wipes contained MI, which probably was the sensitizing culprit. The ongoing epidemic of contact allergy to MI has been reported by several authors (1, 3, 4). A similar case was published recently, with a 4-year-old girl suffering from airborne dermatitis mimicking atopic dermatitis from a newly painted room. The primary sensitizer was allegedly moist toilet paper used when

she was baby (5). Allergic contact dermatitis to moist wipes containing MI has previously been reported (6). Airborne allergic contact dermatitis caused by MI is a problem for painters (7), and also for people already sensitized to MI who move into newly painted buildings (8–10). An Australian case series reported 7 parents of young children with allergic contact dermatitis on the hands caused by MI contained in baby wipes (11). This case adds further evidence regarding the safety of MI in consumer products and in water-based paints, as the contact allergy is considered to be lifelong, and multiple exposure possibilities exist later in life.

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