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Airborne contact dermatitis to triclosan

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Case Report

A 50-year-old Caucasian kitchen assistant presented with a persistent facial eruption of abrupt onset. There was no preceding history of atopy or other dermatoses. She awoke with generalized facial erythema and gross periorbital oedema causing partial eyelid closure. Pruritus and discomfort were pronounced. An episodic clinical course with periods of clearance ensued, often with involvement of the anterior neck, chest, and upper shoulders. She denied any hand dermatitis. Prior to consultation, each occurrence had been treated with short courses of oral β -lactam antibiotics and moderately potent topical corticosteroids, with resolution typically within 4 days.

Apart from hormone replacement therapy (taken for 18 months), the patient had not recently commenced any prescribed or over-the-counter medications. Her employment as a kitchen assistant involved the use of commercially available aerosol surface disinfectants.

Immunoglobulin E was within normal limits. Patch and photopatch testing with the British baseline, facial and hairdressing series showed a positive reaction to triclosan 2% pet. (Trolab®) at D2 (++) and D4 (++), read according to International Contact Dermatitis Research Group criteria.

Our patient was found to be using a triclosan-containing kitchen disinfectant in her job. This was dispensed onto the surface in an aerosol form, and then distributed over the surface with a cloth. She routinely wore protective gloves to perform this task. Following identification of the sensitizing agent, she adjusted her practice, and now sprays the product carefully and directly onto a damp cloth. She has experienced no further episodes

of facial dermatitis, suggesting that the aerosol nature of this 2% triclosan-containing product was sufficient to cause sensitivity. A repeated open application test was not performed, given the clearly positive results on patch testing and response to avoidance.

Discussion

Triclosan (Irgasan® DP 300; CAS 3380-34-5), a diphenyl ether (2,4,4'-trichloro-2'-hydroxydiphenyl ether), is considered to have a low sensitizing potential (1). Contact dermatitis caused by triclosan was first reported in 1975, following the investigation of two patients, one sensitized to a deodorant foot powder, and the second to an antiperspirant deodorant stick (2). Since then, contact allergic dermatitis caused by other triclosan-containing products, including disposable paper products, polyvinyl gloves, toilet soaps, shampoos, topical Logamel® cream (3% triclosan/0.02% flumethasone pivalate), and commercial laundry products, has been documented (3, 4). However, despite the widespread popularity of such products, the prevalence of sensitization remains low, at less than 1% (5, 6). The Swiss Contact Dermatitis Research Group patch tested 2295 patients for a 1-year period, and found positive reactions in 0.8% (5). A Swedish Group reported induced contact sensitivity in 0.2% of 1100 patients using products containing 2% triclosan over a 16-month period. With concentrations of 0.5% and 1%, no cases of sensitization were found (902 patients) (6).

Few cases of allergic contact dermatitis induced by triclosan have been reported, and the majority involve eczema of the hands, or areas such as the face, axillae or feet that have had direct contact with the causative product. This is the first case report suggestive of an airborne allergic dermatitis caused by triclosan, with resolution on removal of aerosol contact. We stress the importance of detailed patient enquiry for all potential contact allergen sources, to facilitate the identification and promotion of meaningful avoidance strategies.

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ASCARIDOLE, PATCH TESTED AT 1% AND 5% • BAKKER ET AL.

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