

Short Communication

Occupational protein contact dermatitis from coriander

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Coriander is one of the many spices included in curry. It often causes allergic prick test reactions (1, 2), but does not yet appear in the lists of agents reported to cause occupational protein contact dermatitis (3–7).

Case Report

A 22-year-old chef had no atopic skin or respiratory problems in infancy, but started to develop rhinoconjunctivitis at 5–6 years. Since then he had also developed oral symptoms, i.e., itching of the lips and palate, and swelling of the throat, from apples, pears and nuts. He had had no skin symptoms before he started training as a chef.

In his current job, he had developed itchy hand dermatitis, related to the handling of raw potatoes, tomatoes, carrots, and curry. Dermatitis also occasionally developed on the face, especially if juices of any of the above vegetables or spices splashed onto his face. When seen by us, he had been on sick leave, and was symptomless, except for mild paronychia.

Patch testing was performed according to the recommendations of ICDRG with a modified European standard series (allergens mainly from Chemotechnique, Malmö, Sweden, and Trolab, Reinbek/Hamburg, Germany), a series of antimicrobials (Chemotechnique), spices (8), flours, diallylsulfide and allicin. All patch tests were negative.

Prick testing was performed as described earlier (9). The following positive prick tests were found: in a series of environmental allergens including natural rubber latex (NRL), birch (13 mm+ pseudopodia), alder (10 mm); in a series of vegetables, potato (9 mm), carrot (5 mm), apple (9 mm), parsnip (5 mm) and parsley (5 mm); in a series of spices and nuts, coriander (10 mm+ps), almond (9 mm) and hazelnut (9 mm). All other components of curry were negative. Series of storage mites, molds and flours were negative. The control test with histamine 10 µg/ml had a diameter of 8 mm. Total IgE was close to normal (116 kU/l; normal <110 kU/l). RASTs (Pharmacia, Sweden) to potato, carrot, tomato, onion and garlic were negative.

We concluded that our patient had occupational protein contact dermatitis from coriander, raw potato and carrot. Protein contact dermatitis has previously been reported from potato and carrot (Table 1). Our patient also had symptoms of immediate allergy to curry and, based on prick testing, it was concluded that the spice in curry causing the symptoms was coriander. His specific sensitization had developed in less than 1 year from occupational exposure to coriander and vegetables. Based on clinical follow-up, we concluded that the patient could not continue in his job, and re-training has been recommended.

Discussion

Coriander is the dried, ripe fruit of *Coriander sativum* (Umbelliferae), which is cultivated widely (10, 11). It has been reported as responsible for stomatitis (10, 11), hand eczema (12), and contact urticaria (2). Coriander is 1 of the components of the widely used curry spice (2, 11). Curry may additionally contain nutmeg, black pepper, turmeric, clove, ginger, cinnamon, white pepper, cardamom, mustard, cayenne, caraway and other spices (2). In a study in which 71 patients with a positive skin test to curry were tested to the above spices, coriander caused the most prick test reactions, i.e., 42 (59.2%) (2). Coriander may also cause allergic contact dermatitis (12, 13). Linalool has been identified as a putative Type IV allergen in coriander (14).

Our patient contracted dermatitis specifically from handling curry. Patch tests to spices, including coriander, were negative, whereas a prick test to coriander was strongly positive. The patient did not have clinical signs of contact urticaria, and accordingly, a diagnosis of protein contact dermatitis was made. Our patient had once before had an allergic prick test to celery, as well as now to carrot, mugwort and spices, so he was typical of the “celery-carrot-mugwort-spice syndrome” (15), or oral allergy syndrome. Our report indicates that such patients should probably not choose an occupation in which heavy exposure to food allergens occurs.

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