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Immunologic contact urticaria caused by asparagus

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Asparagus (*Asparagus officinalis*), a member of the Liliaceae family, is cultivated worldwide as a vegetable. There have been several reports describing contact dermatitis, which usually appears as an occupational hand eczema in food handlers (1).

Case Reports

Patient no. 1 was a 26-year-old housewife, in whom seasonal rhinitis and asthma caused by sensitivity to pollen were diagnosed. She had noticed over a 3-year period that contact with asparagus leaves elicited immediate erythema and pruritic wheals restricted to the contact area. She tolerated the ingestion of asparagus.

Patient no. 2 was a 29-year-old woman in whom pollen- and *D. pteronyssinus*-induced rhinoconjunctivitis and asthma were diagnosed. She had been working in a vegetable-processing plant for the last 3 years. 2 years after she had started this job, she began to notice symptoms of urticaria a few minutes after handling asparagus. She also presented symptoms typically localized in the mouth, after eating asparagus.

Rub tests (2) with asparagus were positive in both patients. Prick tests with an extract of asparagus (1/10 w/v) (3) were positive in patient no. 2 and negative in the other. Prick-by-prick tests (4) with asparagus and other vegetables of the Liliaceae family, such as onions and garlic, were positive in both patients. Open and closed patch tests (5) were negative with asparagus and the extract. Specific IgG was measured by the CAP system (Pharmacia Diagnostics, Sweden), class 2 or above being considered positive. Patient no. 1 was IgE positive to asparagus, onion and garlic (class 3), and patient no. 2 had specific IgE to asparagus (class 4), garlic and onion (class 3).

Results of the same tests performed in 15 atopic subjects and 15 healthy volunteers were negative.

Comment

Asparagus-causing symptoms of an IgE-mediated contact urticaria was identified in both cases. Both patients were sensitive to other members of the Liliaceae family (6). The comparative usefulness of prick-by-prick and

rub tests agree with other studies concerning vegetable contact urticaria (7). Delayed contact allergy caused by asparagus (1) and IgE-mediated inhalant allergies to this member of the Liliaceae family (8) have been described. However, to the best of our knowledge, these are the 1st reports of immunologic contact urticaria caused by asparagus.

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Lauryl gallate hand dermatitis in a cheese counter assistant

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Case Report

A 23-year-old woman had an extremely painful itchy hand dermatitis, characterized by dermatitis sicca of the finger tips and, on the backs of the hands and fingers, crusts, fissures and exudation. This had started to appear 2 months before presentation and had been unsuccessfully treated with topical corticosteroids. She was a cashier in a large supermarket, but she sometimes helped out as a replacement elsewhere, and for the last 3 months she had been working as a cheese counter assistant. Patch tests with the GIRDCA standard series, supplemented with a food preservatives series, showed a strong positive reaction to lauryl gallate (0.1% pet.), an antioxidant sometimes added to cheese, butter and margarine. She completely recovered by not working for a while and through brief therapy with clobetasol propionate ointment. Relapses were not observed when she resumed her job as a cashier at the supermarket, rather than returning to the cheese counter.

Discussion

Phenolic compounds, such as propyl gallate, octyl gallate and dodecyl gallate (lauryl gallate), are often employed as antioxidants to prevent rancidity and bad smell in pharmaceutical and industrial products such as dairy and bakery goods, frying oils, cosmetic creams, lotions and lipsticks (1). Gallates are considered safe at

the allowed concentrations of 100 mg/kg in oils and fats and 0.05–0.2% in foods and topical products (2, 3). Despite their wide use, there are few reports of their identification as contact sensitizers (4–7). They are moderate to strong sensitizers and sensitization to one may cause cross-reactivity to others.

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