

Allergic contact dermatitis in food handlers, with patch tests positive to Compositae mix but negative to sesquiterpene lactone mix

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Compositae dermatitis due to agricultural exposure is well recognized (1) and has been reported in both occupational and recreational gardeners (2–4, 6). It is less commonly recognized in food handlers (4–7). Sesquiterpene lactone (SL) mix contains equimolar concentrations of alantolactone, costunolide and dehydrocostus lactone (8). Compositae mix contains extracts of arnica 0.5%, yarrow 1%, tansy 1%, German chamomile 2.5% and feverfew 1% (9, 11).

Case Reports

Case no. 1

A 17-year-old hotel chef presented with work-aggravated hand dermatitis. He had a personal and family history of atopy. Much of his work was handling salads and lettuce. Patch tests to a modified European standard series, including sesquiterpene lactone (SL) mix 0.1% (Trolab), were negative, but a patch test to Compositae mix 6% pet. (Hermal) was positive (Table 1). His dermatitis resolved while off work, and he has been able to resume work with avoidance of lettuce.

Case no. 2

A 22-year-old kitchen assistant with a previous history of atopic dermatitis developed hand and arm eczema 4 months after starting work. She patch tested positive to thiurams, fragrance mix, nickel, Compositae mix and extracts of yarrow, tansy, arnica and feverfew. A patch test to SL mix was negative. She was not a keen gardener, but handled vegetables, including lettuce, at work. Her eczema has cleared since changing to a job which does not involve handling food.

Case no. 3

A 22-year-old chef developed hand dermatitis 18 months after starting work. He had a personal history of atopy (hay fever only). He was not a keen gardener but handled a lot of lettuce and other vegetables at work. He was patch test positive to Compositae mix but negative to SL mix. His dermatitis has resolved whilst off work and he is to resume work with avoidance of lettuce and salads.

Case no. 4

A 24-year-old woman developed work-related hand dermatitis 4 years after starting work as a chef in a public house (bar). There was no previous history of skin problems or atopy. Initial patch tests in 1994 were positive to formaldehyde, balsam of Peru, wool wax alcohols, fragrance mix, quaternium-15 and nickel sulfate. Repeat patch tests at the end of 1997, following spread of dermatitis to her face and arms, confirmed the above allergies; thiurams, isoeugenol, benzoyl peroxide and Compositae mix were also positive. SL mix was negative. In addition, she had positive Type I reactions on prick testing to prawn, lemon and rubber gloves. Keen to continue her present job, she continues to have persistent dermatitis not controlled with azathioprine.

Case no. 5

A 42-year-old food services advisor had had recurrent flare-ups of hand dermatitis for 8 years. There was no history of atopy. In 1991, she had been found to be allergic to rubber and nickel but, despite allergen avoidance and the use of plastic gloves, the flare-ups continued. When she presented, she had been off work for several months. Patch tests confirmed the above allergies and she was also strongly positive to Compositae mix, with only a ?+ reaction to SL mix. Her work involved contact with lettuce and other vegetables but, unlike the previous patients, she was also a keen gardener. With avoidance of Compositae in the workplace and garden, her dermatitis has resolved and she has been able to return to work.

Case no. 6

A 38-year-old chef presented with a 7-year history of hand dermatitis. He had worked in kitchens since leaving school and had no personal or family history of atopy. He was also a keen gardener. His patch tests were positive to thiuram, Compositae mix and extracts of tansy and feverfew. SL mix was negative. He was reluctant to give up gardening and, despite the use of plastic gloves and avoidance of lettuce and salads at work, he continues to have a degree of dermatitis.

Table 1. Patch test results to sesquiterpene lactone mix and Compositae mix (D2 and D4)

	Case no. 1	Case no. 2	Case no. 3	Case no. 4	Case no. 5	Case no. 6
sesquiterpene lactone mix (0.1% pet.)	–	–	–	–	?+	–
Compositae mix (6% pet.)	+	+	+	++	++	+

Discussion

Since its introduction in 1990 (8), the SL mix has been incorporated into our standard series. However, its ability to detect all Compositae allergy has been questioned (9–11). By adding the Compositae mix (9, 11), we are diagnosing allergic contact dermatitis in food handlers that would otherwise be missed. With the exception of case nos. 5 and 6, none of these patients were gardeners and their sole exposure to Compositae was occupational, the 1 factor common to all 6 being the handling of lettuce. In 4 of the 6 cases, dermatitis resolved with allergen avoidance. This group of patients is much younger than the typical Compositae-allergic patient, who is over 60 years and a gardener. In addition, all cases presented with hand dermatitis rather than an airborne distribution (12). Compositae dermatitis in food handlers may be commoner than recognized and the Compositae mix may detect previously unsuspected allergies.

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Photopatch test reaction to amitriptyline

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Photosensitivity is a known cause of acquired hyperpigmentation. Cutaneous side-effects of tricyclic antidepressants are rare and photosensitivity is an even more uncommon reaction (1). Protriptyline and imipramine are the tricyclics which have been implicated as photosensitizers (1).

Case Report

A 45-year-old woman, on alprazolam 0.5 mg and amitriptyline hydrochloride 25 mg oral daily for the past year, presented with a 1-month history of diffuse hyperpigmentation over exposed areas of the back and left side of the abdomen (areas not covered by the sari). Furrows and skin folds were spared. She did not recall any erythema, scaling or burning sensation. Blood and urine examinations were within normal limits.

Photopatch testing was performed, patch test materials being prepared by extracting the active ingredient (a.i.) from the commercially available preparation. The a.i. was separated from the excipients by first dissolving the tablets in suitable solvents. It was then filtered using 41 Whatman filter paper, dried at 40°C, and finely powdered with a mortar and pestle. 1%, 2%, 5% and 10% amitriptyline hydrochloride and 1% and 2% alprazolam were made up in an aqueous cream base. The allergen-charged Van der Bend chambers were applied in duplicate on either side of the back. Patch test readings at D2 were negative on both sides. The left side was then exposed to 15 J/cm² UVA. 1 day after irradiation, readings on both sides were negative, but after 2 days, amitriptyline 10% and 5% showed a positive reaction on the UVA-exposed site only, suggesting photosensitivity to the drug. Amitriptyline was stopped and the patient was recommended topical sunscreens. Patch testing in 8 and