

Lime dermatitis from gin and tonic with a twist of lime

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The presence of psoralens in citrus fruits usually causes dermatoses of a phototoxic nature. Allergic contact dermatitis due to citrus fruit is more unusual, although it has been reported in cooks, bakers, bartenders (1, 2) and persons involved in citrus growing and packaging (3). We report a case of allergic contact dermatitis to limes which our patient enjoyed sucking after finishing her gin and tonic.

Case Report

A 52-year-old lady presented with a 4-month history of an eczematous rash at the side of her mouth and lips. This was diagnosed as angular cheilitis by her general practitioner (GP) and treated with Daktacort cream (Janssen-Cilag, Buckinghamshire, UK). A few months prior to seeing her GP, she started to suck the limes that were in her gin and tonic for up to 1 min after finishing her drink.

She had a history of mild hand eczema and eyelid dermatitis. Her general health was otherwise unremarkable, and she was not taking any systemic medication.

Examination showed an eczematous eruption on the lips, left corner of the mouth and left chin. There was also some eczema affecting her eyelids. The rest of the skin examination was normal.

She was patch tested to the British Contact Dermatitis Society extended standard series, cosmetics, balsams and perfumes, hairdressers series, lemon and lime peel. There were positive reactions to *Myroxylon pereirae*, fragrance mix, santolite resin, geraniol 2%, geranium oil, rose oil Bulgarian and lime peel at day 2 and day 4.

We later performed a control series with citral butanone 1% diluted in methyl ethyl ketone, and 1 of 204 control subjects developed a positive reaction at day 4. This patient was not atopic and had no clinical history of citrus allergy. Control tests to lime peel in 20 patients was negative.

Discussion

Allergic contact dermatitis to citrus peel usually affects the hands of workers involved in the citrus industry. Cheilitis and stomatitis have also been noted in persons who prepare lemons and limes for consumption in restaurants (1). Citrus oil components are also frequently used as fragrances and flavourings, so cross-sensitivities are common. This patient's habit of sucking limes after her gin and tonic prompted us to test for reactions to citrus peel and fragrances. Results showed sensitivity to geraniol 2%, geranium oil and lime peel. Citrus oil is made up of 90% limonene, and the remaining 10% consists of citral, geraniol and bergapten. The predominant contact sensitizer is the hydroperoxide derivatives of d-limonene. Geraniol and citral are also recognized allergens while bergapten is a photosensitizer. This patient was not patch tested to d-limonene or citral, as positive reactions to lime peel and geraniol had already identified limes as a potential source of her eczematous rash. She continued to enjoy her gin and tonics, but we asked her to stop sucking the limes afterwards. This was the only change she made, and the dermatitis affecting her mouth completely cleared.

This patient was also sensitive to some fragrances. She was not aware of any previous allergies to fragranced products so adopting a 'fragrance-free' environment was not deemed necessary. The positive reaction to santolite resin, which is a hardening resin in nail varnishes, was likely to be relevant to her eyelid eczema.

This case of lime dermatitis is unusual as it occurred in an individual with no occupational exposure to citrus fruit. It also highlights that we should have an open mind to seemingly innocuous habits and their relation to the presenting complaint. In

this patient, 'too much of a good thing' was detrimental!

References

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