

Allergic contact cheilitis due to geraniol in food

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Fragrance materials are present in many foods and are referred to as flavours and spices. However, despite their widespread use, there are few reports of allergic contact dermatitis caused by these additives. Here, we report contact allergy to geraniol in a patient who developed cheilitis on exposure to certain foods.

Key words: allergic contact dermatitis; cheilitis; food; geraniol

Case Report

The patient was a 19-year-old woman who had suffered from cheilitis for 4 months. Clinical examination showed painful, pruritic, and crusted lesions on the corners of the mouth, and xerotic scales on the vermillion of the lips (Fig. 1). The patient had no history of atopy. These symptoms were partly responsive to treatment with topical corticosteroids. Patch testing was performed using the Japanese Contact Dermatitis Society standard, cosmetic, fragrance, and spice series and the patient's lipstick, lip balm, and toothpaste. Results were read after 2 and 3 days according to the recommendations of the International Contact Dermatitis Research Group (ICDRG). Positive reactions occurred with fragrance mix (+), geraniol (+),



Fig. 1. Clinical findings at the first visit.

and rose oil (+), all of which included geraniol. The lipstick, lip balm, and toothpaste did not contain geraniol, and therefore contact allergy to geraniol present in food was suspected. Subsequent avoidance of ice cream, candy and gum containing geraniol caused a significant improvement in symptoms within 2 weeks.

Discussion

Geraniol is colourless, has a scent of roses, and is found in essential oils such as rose, geranium, citronella, jasmine, and lavender oils (1). It is used in cosmetics and in sweet foods such as ice cream and candy. Allergic contact dermatitis to geraniol has been reported (2–8), but our case is the first report of allergic contact cheilitis as a result of contact with geraniol in food. Cosmetics, toothpastes, and medications are common causes of allergic contact cheilitis (9), but food additives are rarely a cause. Therefore, our case emphasizes that food additives should be considered as a possible cause of allergic contact dermatitis in patients presenting with cheilitis.

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