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Allergic contact stomatitis caused by propolis candies

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Propolis is a natural resinous product collected by bees from trees and flowers. It has been used since ancient times for its supposed antimicrobial, spasmolytic, anti-inflammatory, antioxidant, immunomodulatory and anaesthetic properties (1). Recently, there has been an increase in its use in products for homeopathy, cosmetics, and nutritional supplements.

Case Report

A 68-year-old male, without a history of dermatological disease, was referred to our department for the management of painful oral ulcerations that had been present for 1 month. The pain was so intense that he could not eat properly, and he had lost 4 kg. Prior to the onset of the oral symptoms, he had been treated for sinusitis with ibuprofen, codeine, and propolis candies.

On physical examination, we found extensive erosions in the jugal, lingual and inferior labial mucosa, without blisters (Fig. 1 and Fig. S1). Culture of the lesions for bacteria and fungi gave negative results. Patch tests were performed with the Spanish baseline series. In addition, propolis 10% pet. was tested. On day (D) 4, only a strong (++) reaction to propolis was found. Cessation of the use of the candies and treatment with topical and systemic corticosteroids led to nearly complete resolution of the lesions within a few days.

Discussion

The chemical composition of propolis is variable, owing to variability of the local flora, and > 300 constituents have



Fig. 1. Extensive erosions in the jugal, lingual and inferior labial mucosa.

been identified (2). LB-1 appears to be the main sensitizer. It consists of a mixture of three isomers of pentenyl caffeate, phenylethyl caffeate, caffeic acid, and benzyl caffeate (3). It is currently considered that 1.2–6.6% of the patch tested population are sensitized to propolis (4). The first publication of a case of contact dermatitis caused by propolis was in 1915 (5), but, since the 1970s, a large number of cases has been published, in parallel with the increasing use of this powerful sensitizer (6). In spite of this, very few cases of oral mucositis caused by propolis candies or lozenges have been published (7–10).

In recent years, a greater number of oral 'natural' products (toothpaste, chewing gum, mouthwashes, and even candies) have included propolis in their composition. Therefore, propolis is a sensitizer to consider in patients with oral mucositis, and it should be patch tested in users of these products, even though it is not yet included in most baseline patch test series.

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Supporting Information

Additional Supporting Information may be found in the online version of this article:

Figure S1. Extensive erosions in jugal, lingual and inferior labial mucosa.

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