

CONTACT POINT

Severe allergic contact dermatitis mimicking angioedema caused by propolis used as a traditional remedy

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Propolis has been used as a remedy since ancient times.¹ It has anti-inflammatory and antimicrobial properties, and is used in many over-the-counter products.^{1,2} We report a case of severe allergic contact dermatitis mimicking angioedema resulting from such use of propolis.

CASE REPORT

A 14-year-old girl with a history of early childhood eczema developed a common cold on the day she arrived in Israel to stay with her Israeli-Russian grandparents. On the following day, she developed marked facial swelling and erythema. She was treated in a local hospital with systemic corticosteroids and antihistamines for angioedema, and recovered over the next 10 days. On returning to London, she visited a dermatologist and showed him photographs of the alleged angioedema. He noticed some surface skin changes and referred her for patch testing.

She was patch tested with a modified baseline series, a fragrance series, and a cosmetic series. There were strong positive reactions (++) to propolis on day (D) 2 and D5. It transpired that the patient's grandparents kept pure propolis for medicinal purposes and had applied this to her perinasal skin on the evening of her arrival in order to alleviate her symptoms.

DISCUSSION

Severe allergic contact dermatitis involving the face can be misdiagnosed as angioedema if the onset is acute and facial oedema is the

major finding. Propolis is a resinous mixture that honey bees collect from botanical sources. Many studies have reported allergic contact dermatitis caused by propolis in children. Giusti et al found a prevalence of patch test positivity to propolis of 5.9% in 1255 Italian children.³ Another study reported that 4.8% of 1094 children were sensitized to propolis, with no difference between atopics and non-atopics.⁴ Czarnobilska et al reported positive patch test results in 11.7% and 5.4% of Polish children and adolescents, respectively, and suggested including propolis in the children's baseline series.⁵

The ancient Jews considered *tzori* (the Hebrew word for propolis) to be a medicine, and its therapeutic properties are mentioned in the Old Testament. Propolis is still used in eastern Europe as a herbal remedy, and has been called the "Russian penicillin". Many propolis-containing over-the-counter products are marketed topically (e.g. in cosmetics), as well as in oral forms (e.g. lozenges).^{1,6} Patients have been commonly sensitized from these exposures. In our patient, the only previous exposure to propolis had been the use of propolis pastilles for minor ailments. We speculate that propolis sensitization may have originally occurred through perioral eczematous skin from propolis-containing saliva, similar to what has been postulated for food allergy associated with infantile atopic dermatitis.⁷

CONFLICT OF INTEREST

The authors declare no potential conflicts of interest.

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