

Short Communication

Occupational contact dermatitis due to propolis

ANTHONY M. R. DOWNS AND JANE E. SANSOM

Department of Dermatology, Bristol Royal Infirmary, Bristol, BS2 8HW, UK

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Case Report

A 50-year-old man presented with a 1-year history of fissured hyperkeratotic hand dermatitis, mainly affecting the fingers and palms. He worked in a retail store specializing in home improvement products, ranging from basic raw materials to manufactured goods. His job involved handling a variety of wood products, including untreated raw timber, and preserved and finished woods. He was on no medication and used no topical agents.

Patch tests to European standard, facial, preservatives, rubber and office worker series, as well as butylphenol-formaldehyde resin, pentachlorophenol and propolis revealed a single ++ reaction at 2 and 4 days to propolis 10% pet.

To his knowledge, there were no poplar trees or poplar-wood products at home or work. Although there were varnished and polished woods at his workplace, it is not known whether they contained beeswax. He was advised to wear gloves when handling timber and furniture at work, and to dispose of furniture polish at home. Review at 3 months showed an improvement in pain and a marked reduction of the hyperkeratosis on his palms and fingers.

Discussion

Propolis is a major constituent of beeswax, some wood polishes and wood varnishes (1). Bees use propolis to seal their hives. More than 46 constituents have been derived from it, including dead insects, but poplar bud resin forms the majority (2). European bees selectively collect this bud resin to make propolis.

Propolis is a recognized cause of occupational contact dermatitis in bee keepers (3). A range of medicinal and

'natural' products also contain it and have increasingly been implicated in causing contact dermatitis (3, 4). 2 workers cutting branches from poplar trees developed propolis dermatitis (5). A housewife developed dermatitis from propolis in a violin wood varnish (6), and a case of dermatitis due to beeswax nipple protectives has also been described (7).

The patient we report may have been exposed to varnished woods where the varnish contains propolis, or finished wood that has been polished with a beeswax-containing polish. Irritant factors may also be contributing. Contact dermatitis from propolis should be considered in occupations or hobbies where varnished or finished woods are handled.

References

1. Bonner K J (ed). *Furniture restoration and repair for beginners*. Lewes, UK: Guild and Mastercraftsman Publication Ltd., 1994.
2. Hausen B M, Wollenweber E, Senff H, Post B. Propolis allergy (II). The sensitizing properties of 1,1-dimethylallyl caffeic acid ester. *Contact Dermatitis* 1987; 17: 171–177.
3. Hausen B M, Wollenweber E, Senff H, Post B. Propolis allergy (I). Origin, properties, usage and literature review. *Contact Dermatitis* 1987; 17: 163–170.
4. Raton J A, Aguirre A, Diaz-Perez J L. Contact dermatitis from propolis. *Contact Dermatitis* 1990; 22: 183–184.
5. Winkler A. Dermatitis durch Pappelharz. *Derm Wschr* 1956; 193: 81–87.
6. Monti M, Berti E, Carminati G, Cusini M. Occupational and cosmetic dermatitis from propolis. *Contact Dermatitis* 1983; 9: 163.
7. Garcia M, Del Pozo M D, Munzo J D, Fernandez de Corres L. Allergic contact dermatitis from a beeswax nipple-protective. *Contact Dermatitis* 1995; 33: 440–441.