

Propolis allergy in an HIV-positive patient

Stefania Bellegrandi, MD,* Gianpiero D'Offizi, MD, Ignacio J. Ansotegui, MD, PhD, Rosetta Ferrara, MD, Enrico Scala, MD, and Roberto Paganelli, MD *Rome, Italy*

Propolis is a natural resinous product collected by bees from poplar trees. It has antiseptic, antimycotic, and bacteriostatic properties and is found in cosmetics and "natural products" for self-treatment. It can cause allergic contact dermatitis. Allergic contact dermatitis is unusual in HIV-positive patients.¹⁻⁴ Many of them are increasingly using natural products as an adjunct to antiretroviral therapy. These include propolis-containing drops and ointments.

CASE REPORT

A 40-year-old HIV-1-positive woman (stage IVC2, Centers for Disease Control and Prevention classification) had painful ulcers of the mouth. White plaques were observed on the oral mucosa. For 15 days the patient had been taking propolis (30% solution, 30 drops per day). The patient was treated with fluconazole (400 mg/day intravenously), acyclovir (1200 mg/day orally), ranitidine (300 mg/day orally), amphotericin B (300 mg/day orally), vitamins, and antacids. At the same time the patient stopped taking propolis, and her symptoms abated in a few days. Before treatment, cultures for *Candida* were negative.

One month later the patient had fever (up to 39.7° C), labial and oral swelling, dyspnea, oral mucosal ulcers, and labial and perioral eczema. The lesions began to develop the day after she resumed taking propolis. Propolis and other drugs were discontinued, and she was treated with deflazacort (30 mg/day) and cetirizine (10 mg/day). A complete remission of the lesions and symptoms occurred.

One week later patch testing was carried out with the European Environmental Contact Dermatitis Group series and propolis (20% in petrolatum). Results were positive at 48 hours for nickel sulfate (+ +), balsam of Peru (+), and propolis (+ + +). Readings at 5 and 9 days were still positive to all three allergens. One month later, patch tests to propolis at lower concentrations (2% and 0.2% in petrolatum) were positive (+ + + and + +, respectively) at 2 days. Results were negative to a large panel of inhalant

and food allergens by skin prick test. Results of evaluation of cell-mediated immunity with antigens were negative.

Eight healthy subjects and 10 HIV-positive patients without a personal or family history of allergy also underwent patch tests. None had a positive reaction.

DISCUSSION

Allergic contact dermatitis in HIV-infected patients has been reported.¹⁻⁶ Ours is the first report of allergic contact cheilitis and stomatitis from propolis. However, Hay and Greig⁷ described oral mucositis with ulceration caused by propolis in an HIV-1-negative man. Infectious stomatitis is common in HIV-positive patients. Therefore the first approach is usually the administration of antiviral therapy, antimycotic therapy, or both. However, other causes, such as contact allergy, should be suspected if the patient is exposed to a potentially allergenic substance.

Our patient also had a positive reaction to nickel sulfate and balsam of Peru; the latter substance and propolis have at least eight compounds in common.⁸ Despite the presence of cutaneous anergy to recall antigens, a strong delayed response to sensitizing agents developed in our patient. A report of a patient with AIDS and contact dermatitis to *p*-phenylenediamine supports this paradoxical coexistence.⁶

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Reprint requests: R. Paganelli, MD, Department of Clinical Medicine, Viale Università 37, 00185 Rome, Italy.

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