

Allergic contact dermatitis to pimecrolimus

Contact Dermatitis 2007; 56: 43–44

Peter Saitta¹ and Ronald Brancaccio²

¹School of Osteopathic Medicine, University of Medicine and Dentistry of New Jersey, Stratford 08024, NJ, USA, and ²Ronald O. Perelman Department of Dermatology, New York University School of Medicine, 11209 New York, NY, USA

Pimecrolimus suppresses the proinflammatory cytokine production of cutaneous

T and mast cells (1). It is used to treat atopic dermatitis and is the active ingredient in the topical formulation pimecrolimus 1.0% cream (Elidel[®], Novartis Pharma AG, Basel, Switzerland).

Key words: allergic contact dermatitis; Elidel[®]; pimecrolimus.

Case Report

A 70-year-old woman had a history of chronic stasis dermatitis affecting her legs and feet. Her primary care physician treated the dermatitis with numerous topical corticosteroid creams and pimecrolimus 1.0% cream (Elidel[®]). Despite the treatment, the patient developed a severe exacerbation of the dermatitis on her legs and feet. Her hands also flared.

We patch tested the patient to our screening series of 58 allergens, a topical medicament series of 13 allergens, pimecrolimus 1.0% (Elidel[®]), fluticasone propionate 0.05%, halobetasol propionate 0.05%, prednicarbate emollient 1.0% and hydrocortisone acetate with pramoxine hydrochloride. There was (++) reaction to the pimecrolimus 1.0% cream (Elidel[®]) at 2 days and 1 week. This test to Elidel[®] was repeated 2 more times to verify the (++) reaction. The remaining patch tests were negative.

The patient subsequently tested negative to the base of the pimecrolimus 1% cream (Elidel[®]), which was obtained directly from the pharmaceutical manufacturer Novartis. 2 additional patch tests to the base were performed to confirm this negative reading. (The company could not supply the active ingredient pimecrolimus as is for testing.) In addition, several known allergenic components of the base were placed including propylene glycol, stearyl alcohol 30.0% pet., cetyl alcohol 5.0% pet. and benzyl alcohol 1.0% pet. These components tested negative. We concluded that the active ingredient, pimecrolimus, caused the dermatitis, as the base did not elicit a reaction.

The patient improved with discontinuation of the pimecrolimus 1.0% cream (Elidel[®]) and application of fluocinonide 0.05% ointment.

Discussion

Preclinical and clinical studies of pimecrolimus 1% cream show that it is well tolerated. A transient, mild,

burning sensation has been the most common application site reaction (1–4), which was slightly more prevalent in pimecrolimus-treated groups (10.5%) than in controls (9.3%) (2).

With regards to contact dermatitis, in a study, 2.6% of 123 patients (1) experienced a contact dermatitis to the pimecrolimus 1% cream (Elidel[®]), while in another series, 3% of 96 patients were suspected to have a contact dermatitis (3). In these instances, the allergic or irritant nature of the dermatitis was not investigated.

Although in our case the active ingredient was unobtainable (pimecrolimus), repeated testing implicated pimecrolimus as the allergen. To our knowledge, there are no other cases in the literature reporting a contact allergy to topical pimecrolimus.

References

1. Ho V C, Gupta A, Kaufmann R et al. Safety and efficacy of nonsteroid pimecrolimus cream 1% in the treatment of atopic dermatitis in infants. *J Pediatr* 2003; 142: 155–162.
2. Wahn U, Bos J D, Goodfield M et al. Efficacy and safety of pimecrolimus cream in the long-term management of atopic dermatitis in children. *Pediatrics* 2002; 101: 158–159.
3. Meurer M, Folster-Holst R, Wozel G, Weidinger G, Junger M, Brautigam M. Pimecrolimus cream in the long-term management of atopic dermatitis in adults: a six-month study. *Dermatology* 2002; 205: 271–277.
4. Herbert A A, Warken K A, Cherill R. Pimecrolimus cream 1%: a new development in nonsteroid topical treatment of inflammatory skin diseases. *Semin Cutan Med Surg* 2001; 20: 260–267.

Address:

Ronald Brancaccio, MD
7901 Fourth Avenue
Brooklyn, NY 11209
USA
Tel: (718) 491-5800
Fax: (718) 748-2151
e-mail: skinofny@aol.com