

Ensulizole (Phenylbenzimidazole-5-Sulfonic Acid) as a Cause of Facial Dermatitis: Two Cases

To the Editor:

Photoallergy to sunscreen ingredients in personal care products may cause chronic or intermittent facial dermatitis. When such ingredients are present in facial foundation or moisturizer, the rash will be limited to the face, and the classic photodistribution involving the neck and dorsal hands will be absent. The patient may not be aware of sunscreen in these products and may not report sunscreen use to the physician evaluating the dermatitis. When a sunscreen ingredient is present in shampoo, a sun protection factor is not listed on the label, and the patient will thus be completely unaware of sunscreen exposure.¹ Therefore, the clinician must maintain a high index of suspicion for photoallergic contact dermatitis from sunscreen when evaluating facial dermatitis.

Sunscreens are the most common cause of photoallergic contact dermatitis in the United States.² Benzophenone-3 and para-aminobenzoic acid (PABA) are often included in cosmetic screening and photopatch test series, but phenylbenzimidazole-5-sulfonic acid is not commonly used for tests in the United States. Although the North American Contact Dermatitis Group tests for reaction to ensulizole, ensulizole is not included in Chemotechnique's North American Photopatch Series (Chemotechnique Diagnostics, Malmö, Sweden) (personal communication, April 2005). As with many sunscreens, several trade names are used for this ingredient, including Eusolex 232 (EMD Chemicals, Inc., Hawthorne, NY), NeoHeliopan Type Hydro (Symrise, Teterboro, NJ), and Parsol HS (Roche Vitamins, Parsippany, NJ). In the fall of 2002, the United States Food and Drug Administration ordered that labels on sunscreens identify this chemical as ensulizole.³ Ensulizole absorbs in the ultraviolet B range and is used in a variety of moisturizers and sunscreens. It is cur-

rently available in dozens of facial moisturizers and sunscreen products on the United States market.

We have recently identified two cases of facial dermatitis due to ensulizole in facial moisturizers. In both cases, photopatch testing was required to prove a definite reaction because only a weak (questionable) reaction was noted on patch testing but strong reactions were noted 24 hours after ultraviolet A exposure. Photocontact allergy to phenylbenzimidazole-5-sulfonic acid has previously been reported in a Swedish study of 28 sunscreen-allergic patients in which 15 patients had photoallergy to benzophenone and 2 patients had photoallergy to phenylbenzimidazole-5-sulfonic acid.⁴

In neither of our two cases was there a positive reaction to any sunscreen on the North American Photopatch Series, suggesting a lack of any cross-reaction patterns.

Dermatologists evaluating facial dermatitis may wish to photopatch-test with a series containing phenylbenzimidazole-5-sulfonic acid and instruct sensitive patients to avoid products whose labels indicate ensulizole as an ingredient.

Susan Nedorost, MD

Contact Dermatitis Clinic
University Hospitals of Cleveland/
Case Western Reserve University
Cleveland, OH

References

1. Nedorost ST. Facial erythema as a result of benzophenone allergy. *J Am Acad Dermatol* 2003; 49(5 Suppl):S259-61.
2. Rietschel RL, Fowler JF, editors. *Fisher's contact dermatitis*. 5th ed. Philadelphia: Lippincott Williams & Wilkins; 2001. p. 402.
3. Guidance for industry: drug products containing ensulizole. May 2003. Available at: <http://www.fda.gov/cder/guidance/5297fnl.pdf> (accessed March 2005).
4. Berne B, Ros AM. 7 years experience of photopatch testing with sunscreen allergy in Sweden. *Contact Dermatitis* 1998;38:61-4.

Reprints not available.