

Allergic contact dermatitis caused by hydroxyacetophenone in a face cream

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Antioxidants constitute a minor group of cosmetic allergens used to prevent, for example, the degradation of the unsaturated fatty acids contained in cosmetics. We report a case of allergic contact dermatitis after the use of a face cream containing a new antioxidant.

Case Report

A 79-year-old man with no history of atopy or previous contact dermatitis was referred for recurrent dermatitis in the last 7 months, involving the upper and lower eyelids, predominantly on the right side. He had been using eyedrops for ocular hypertension, which had been changed by his ophthalmologist several times during these months, without improvement of the skin lesions. He also applied his wife's face cream from time to time.

Patch tests were performed with the Spanish baseline series recommended by 'Grupo Español de Investigación en Dermatitis de Contacto y Alergia Cutánea' (GEIDAC), a fragrance series (Chemotechnique, Vellinge, Sweden), all previously used eye drops, and his wife's face cream; the latter products tested 'as is' with Curatest® chambers on the back. The patches were removed from the back after 48 h. All patch test results were negative on day (D) 2 and D4, except for a ?+ reaction to the face cream. A repeated open application test (ROAT) on the upper arm with this cream showed erythema, infiltration, and papules. We performed further patch tests with all product ingredients of the face cream 'skin caviar Deluxe Premium deliplus®', kindly supplied by the manufacturer (RNB Laboratorio Cosmético, Valencia, Spain). We observed positive reactions to hydroxyacetophenone (SymSave® H; Symrise, Holzminden, Germany) 0.6% aq. (+ on D2; ++ on D4). All

other ingredients tested gave negative results. Patch tests with hydroxyacetophenone gave negative results in 10 control subjects. The eczematous lesions resolved within 5 days with the use of topical tacrolimus, and new cutaneous lesions did not develop after withdrawal of the face cream.

Discussion

Antioxidants are occasional causes of cosmetic allergy, and are not routinely evaluated if just using the baseline series (1). Hydroxyacetophenone is used as an antioxidant in cosmetics such as shampoos, conditioners, creams, and lotions (2). Allergic contact dermatitis caused by cosmetics is a common problem occasionally caused by new or rare allergens. We emphasize the usefulness of the ROAT to confirm suspected contact allergy to a patient's cosmetic product. When a patient has a positive test reaction to a cosmetic product but not to any of the common or commercially available allergens contained in the product, it is important to further patch test this patient with the ingredients of the product, usually obtained through cooperation with the manufacturer, to enable identification of the culprit allergen in the cosmetic product (3). To the best of our knowledge, we report the first case of allergic contact dermatitis caused by hydroxyacetophenone contained in a face cream.

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References

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