

Short Communication

Contact allergy to ester gums in cosmetics

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Colophonium is a natural resin from trees of the Pinaceae family, and varies in composition according to its geographical origin (1). Its most important allergens are the oxidation products of abietic and dehydroabietic acid (2). Some modifications made to natural colophonium, to adapt it to various industrial uses, promote the formation of further allergens.

Case Reports

Case no. 1

A 31-year-old woman, with no history of atopy, developed eczematous cheilitis after continual use of a lipstick. Patch tests with the European standard series gave a positive reaction to fragrance mix. A patch test with the lipstick as is was also positive. Further tests with the individual components of the lipstick showed positive reactions to glyceryl abietate and glyceryl hydrogenated rosinat, both at 20% pet. The dermatitis resolved after topical corticosteroid treatment and suspension of use of the lipstick.

Case no. 2

A 23-year-old woman, with no history of atopy, presented with eczema of the lower limbs after use of cold hair-removal strips, regularly 1× a month for the previous 3 months. Patch tests with the European standard series showed reactions to fragrance mix and Myroxylon Pereirae (balsam of Peru), and a test with a piece of the hair-removal strip was also positive. Further tests with the individual components of the strips gave a positive reaction to glyceryl hydrogenated rosinat. A positive reaction was also obtained to glyceryl abietate 20% pet. The dermatitis resolved completely after 10 days treatment with topical corticosteroids and suspension of use of the depilatory strips, and no recurrence was observed during a 6-month follow-up.

Discussion

Colophonium in cosmetics, such as mascara, lipsticks and other lip products, creams and hair-removal prod-

ucts, is known to cause contact allergy (3). Also reported is allergic contact dermatitis from lipsticks containing ester gums (glyceryl esters) (4–6), sometimes inducing pigmentation (7). Ester gums may also be present in hair-removal strips, though there have been no previous reports of contact sensitization from this source.

In our cases, in agreement with other authors (3, 8), no reaction was found to colophonium, the main allergen in ester gums being thought to be glyceryl-1-mono abietate, in contradistinction to those in natural colophonium. Positive reactions to both ester gums and natural colophonium should be attributed to the presence of unmodified colophonium residues in the esterized finished product, and not to true cross-reactivity (8). Simultaneous positivity to glyceryl abietate and glyceryl hydrogenated rosinat is explained by the former being the main constituent of the latter. Patients sensitized to ester gums should avoid the use of certain plasters described as “hypoallergenic”, as well as some drinks (9, 10).

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