

Disseminated Allergic Contact Dermatitis after Exposure to a Topical Medication Containing Geraniol

To the Editor:

Geraniol is usually found in cosmetics and household products. However, it is one of the less potent contact allergens of the eight compounds comprising the fragrance mix (FM).

We present a patient who developed an allergic contact dermatitis on his leg with secondary spreading after he used a topical medication containing geraniol and lavender essence.

A 49-year-old man with a personal history of atopy and stasis dermatitis presented with a venous ulcer on the dorsum of his right toe that had appeared 1 month earlier. The patient had been treated with Blastostestimulina cream (Almirall, Barcelona, Spain) and Betadine (ASTA Médica S.A., Madrid, Spain) once daily during a 4-week period. After 3 weeks of treatment, he developed a severe pruritic eczematous eruption localized around the ulcer, followed by secondary spread to his upper limbs, trunk, and arms. Blastostestimulina and Betadine were discontinued, the eczema was treated with oral antihistamines and systemic corticosteroids, and the lesions disappeared in a few days.

He was patch-tested with the Spanish standard series, fragrance series (Chemotechnique, Malmö, Sweden), Blastostestimulina cream, and Betadine. We found strongly positive reactions at day (D) 2 and D4 to Blastostestimulina (++), fragrance mix (++), potassium dichromate (++), cobalt chloride (++), nickel (+/+), geraniol (++), Bulgarian rose oil (++), geranium oil bourbon (++), and geranium essence (++). The ingredients of Blastostestimulina were patch-tested, yielding positive reactions to geraniol (++), lavender essence (+/+), and neomycin sulfate (+/+) at D2, D4, and D7.

The patient was diagnosed with disseminated allergic contact dermatitis due to Blastostestimulina.

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In the literature, there are very few cases of sensitization to geraniol^{1,2} and lavender³ in relation to excipients of topical medications. Allergic contact dermatitis from perfumes included in topical medications are rarely reported,¹⁻³ and disseminated dermatitis is even more unusual. In the mentioned articles,¹⁻³ we noticed that the lesions were limited to the area of application. In our case, the patient developed an allergic contact dermatitis on his leg (the application site), but there was spreading over extensive regions of the legs, arms, and trunk. Although the clinical features could indicate other types of eczemas, the evolution and the positive patch-test result confirm our diagnosis. In our case, the patient had multiple contact allergies to neomycin and to Bulgarian rose oil, geranium oil bourbon, geranium essence, and lavender (all of which contain geraniol).

Fragrance chemicals included in topical medications have been implicated as the offending agents in leg ulcers, especially in patients of advanced age, causing allergic contact dermatitis that can complicate and prolong the course of the ulcers.⁴ Therefore, some authors believe that perfumes should be avoided in topical preparations.¹ European Union legislation recommends a maximum concentration and the labeling of fragrance compounds in cosmetics, but topical drugs remain unregulated.⁵ We would emphasize the importance of regulating the presence of potent fragrance allergens contained in topical drugs to decrease the frequency of this problem.

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