

Letter to the Editor

Perfume dermatitis revisited

In 1975 I reported a case of cosmetic dermatitis due to a perfume. A total of 94 perfume ingredients were tested "as is" with 12 positive reactions. I stated that any of these 12 materials might be causing the dermatitis and mentioned that "ideally it would be desirable to test each fragrance component in approximately a 5 % concentration in petrolatum or other appropriate base".

I recently tested this patient with each of the 12 reacting fragrance materials at a concentration of 5 % in petrolatum. Only hydroxycitronellal was positive. Thus, her severe periorbital dermatitis due to her eye cream may be ascribed to one component of the complex perfume used in this eye cream. Other possibilities include: (1) interaction of fragrance ingredients in the perfume resulting in an allergenic substance, (2) oxidation or reduction of a non-allergenic fragrance material to an allergenic substance. Therefore, to be certain that the hydroxycitronellal is the sole allergen, one would have to test with the complete perfume made up without hydroxycitronellal.

Hydroxycitronellal is a synthetic material not found in nature. It is commonly used (over a million pounds a year) in perfumes, especially floral perfumes, in rather high concentrations. Hydroxycitronellal is a sensitizer that can elicit an allergic response at low concentrations. In contrast, a weak sensitizer such as methyl paraben can be used in cosmetics on normal skin in a paraben-sensitive person without causing contact dermatitis. However, if applied to dermatitic skin, it will evoke dermatitis in a paraben-sensitive individual. In my experience, the parabens and lanolin preparations are rare sensitizers compared to the fragrance materials (Larsen, in press).

Walter G. Larsen

References

- Larsen, W. G. (1975) Cosmetic dermatitis due to a perfume. *Contact Dermatitis* 1, 142.
- Larsen, W. G. Perfume dermatitis: A study of 20 patients. *Archives of Dermatology* (In press).

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