

Connubial Allergic Contact Dermatitis Caused by Fragrance Ingredients

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CONTACT SENSITIZATION to fragrances is common in the general population.^{1–3} Physicians who do patch testing are required to identify sources of exposure in patients with positive patch test reactions to fragrance chemicals to prevent persistence of dermatitis. We present a case of connubial allergic contact dermatitis caused by fragrance ingredients.

CASE HISTORY

A 40-year-old nonatopic woman was referred with dermatitis on the lateral aspects of her left forearm and upper arm (Fig. 1A). Repeated treatments with topical corticosteroids proved effective, but immediate recurrence followed on cessation. Patch testing in private dermatology practice before referral revealed contact allergy to methylchloroisothiazolinone/methylisothiazolinone and fragrance mix 1. Hence, the patient had already stopped using fragranced products. Her husband, however, used a variety of fragranced products (totaling 5 different deodorant atomizers). He slept on the left side of the bed and was typically in close and intermittent skin contact with the patient's left arm.

Repatch testing was performed with the European baseline, Gentofte extended patch test series, and deodorants and perfumes used by her husband. Finn Chambers® (8 mm, SmartPractice®, Phoenix, Arizona, USA) on scanpor tape (Norgesplaster A/S, Alfarma, As, Norway) were used. The patch tests were applied to the upper back and occluded for 2 days. Readings were done on day 2, day 3, and day 7 according to the recommendation from the International Contact Dermatitis Research Group.⁴ Positive test reactions were observed to *Myroxylon pereira* (1+ D7), fragrance mix 1 with sorbitan sesquioleate 5 % (+? D3, 1+ D5, 1+ D7), fragrance mix 2 (+? D3, 1+ D5, 1+ D7), Gosh Golden deodorant spray (2+ D3), and Björn Borg deodorant

spray (1+ D3) (Fig. 1B). There were doubtful reactions to methylchloroisothiazolinone/methylisothiazolinone on D3 and D7. The husband was instructed to stop using fragranced products, which resulted in rapid clearance of dermatitis in the patient.

DISCUSSION

Adverse skin reactions caused by fragrances are common, and the use of deodorant sprays seems to be especially associated with fragrance allergic contact dermatitis.⁵ Connubial allergic contact dermatitis has been infrequently reported. Previous case reports have described a variety of eliciting chemicals and skin products such as chlorhexidine,⁶ paraphenylenediamine,⁷ benzoyl peroxide,⁸ perfumes,^{9,10} hair lotion,¹¹ morantel tartrate (a pyrimidine used as an anthelmintic drug),¹² clotrimazole,¹³ phenylmercuric nitrate,¹⁴ nifuratel,¹⁵ and dithranol.¹⁶ Our patient developed allergic contact dermatitis due to repeated skin contact with her husband



Figure 1. A, Dermatitis on the lateral aspect of the left arm in a fragrance allergic patient with connubial contact dermatitis. B, Positive test reactions to Gosh Golden deodorant spray (2+ D3) and Björn Borg deodorant spray (1+ D3).

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who applied large amounts of deodorant spray daily. This was further supported by the complete symptom relief experienced by the patient as soon as her husband stopped using fragranced products. This unusual case shows that fragrance allergic contact dermatitis can occur in sensitized individuals after contact with another person's scented skin. In addition, the problem of connubial fragrance allergic contact dermatitis may be an underestimated problem given the widespread use of scented skin products.

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