

CONTACT POINTS

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Contact dermatitis from violet fragrance in a florist

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A. Callejo¹, J. C. Martínez¹, G. Martín²,
C. Martín¹ and A. Armentia²

¹Allergy Unit, Hospital Virgen de la Concha, Zamora, and ²Allergy Unit, Hospital Universitario Río Hortega, Valladolid, Spain

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Contact dermatitis (CD) due to perfume and fragrance materials has been recognized and characterized largely since historical times. Numerous case reports of allergic contact dermatitis to botanical extracts have been published; however, little is known regarding the prevalence of allergic reactions to botanical extracts (1). A group of investigators has estimated that about 18% of the general female population may have fragrance allergy (2).

Case Report

We describe the case of a 40-year-old woman with a 6-month history of dermatitis with eczematous lesions widespread over the neck, the shoulders and the face (retroauricular and eyelids). She also showed rhinorrhoea and conjunctivitis. She worked as a florist for 10 years and had frequent contact with different plant species, *Viola odorata* among them. She had no history of atopy. She attributed the dermatitis to a fragrance which contains a violet oil, which she sprayed onto her face, because it seemed to occur after applying the perfume. She had been exposed to this perfume for 2 years before she developed dermatitis, but she did not use it daily. Avoidance of fragrance use resulted in clearing of the eruption.

Skin prick tests (SPTs) were performed with a battery of frequent

inhalants, foods, weeds, trees and flowers (violet, rose, carnation, gladiolus and white lily), as previously described (3). The results of SPTs were negative.

A patch test with readings on day 2 and 4 was performed with TRUE test[®] (ALK-Abello, Madrid, Spain), a violet synthetic oil 2% (BIAL-Aristegui, Bilbao, Spain), the violet fragrance as is and in pet. The patch preparations were applied according to ICDRG recommendations (4). The delayed readings of the patch test were positive for nickel, *p*-tert-butylphenol formaldehyde resin, violet fragrance (as is), and violet synthetic oil 2% (Table 1).

The results of SPTs and epicutaneous test were negative in 10 atopic and non-atopic patients, who were used as control subjects.

Discussion

Botanical extracts are used widely in over-the-counter products. They are primarily added for fragrance and their purported healing properties. It is known from older literature that a semisynthetic chemical (methyl heptene carbonate) derived from castor beans and used for the production of artificial violet and jasmine odours can produce contact dermatitis (5). Furthermore, the dried rhizome of *Iris florentina* and other *Iris* spp. provides orris root which smells like violets and yields 'essence of violets' of perfumery. It is difficult to obtain information from manufacturers of the composition of the violet fragrance, but violet-scented fragrance contains a violet

synthetic oil. Today most of the perfumes are scented with synthetic oils. Synthetic fragrance oils are used because they are more affordable than pure unadulterated essential oil.

We report the first case of allergic contact dermatitis from violet synthetic oil, contained in a fragrance, in a florist. Detection of allergy to fragrance oils is difficult as it is not included in the set of commercial allergens used to diagnose hypersensitivity to aromatic agents. CD patients who use botanical products are not fully explained by standard patch test and may benefit from more extensive patch testing to botanical extracts.

Acknowledgement

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Address:

Ana M^a Callejo Melgosa
C/El Coto 22
47195 La Flecha
Valladolid
Spain
Tel/Fax: +34 983 409 370
e-mail: med024383@saludalia.com

Table 1. Positive results with patch test (readings on day 2 and 4)

Allergen	Day 2	Day 4
Violet fragrance (as is)	+++	++++
Violet synthetic oil 2%	+++	++++
<i>p</i> -tert-butylphenol formaldehyde resin	+++	+++
Nickel	+++	+++