

# Contact allergy to benzyl salicylate

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Benzyl salicylate (benzyl-*o*-hydroxybenzoate; CAS no. 118-58-1) is a substance present in natural oils, including ylang ylang (*Cananga odorata*) and *Dianthus caryophyllus* Flower Oil (CAS no. 89958-29-2) (1, 2). It is a common ingredient in many perfumes for its fragrance and preservative properties, and is also found in numerous cosmetic and toiletry products, household cleaners, and detergents (2). According to current European regulations (EC No. 1223/2009), the presence of the substance must be indicated in the list of ingredients of the products that contain it (3).

## Case Report

A 60-year-old woman, who was a housewife, with no hobbies or a personal or family history of interest, presented with an 11-month history of chronic eyelid erythema and swelling with slight pruritus. On examination, weak oedema and erythema was observed in the upper and lower eyelids, with a bilateral and symmetrical distribution (Fig. 1).

Because of suspected allergic contact dermatitis, the patient was patch tested with the Spanish Contact Dermatitis Society baseline series (TRUE Test®) was supplemented with the following allergens: phenoxyethanol 1% pet., primin 100 % ppm pet., fragrance mix II 14% pet. (all 3 AllergEAZE, Calgary, Canada); hydroxyisohexyl 3-cyclohexene carboxaldehyde 5% pet. (Chemotechnique, Vellinge, Sweden); methylisothiazolinone 0.2% aq. (AllergEAZE, Calgary, Canada); *N*-isopropyl-*N'*-phenyl-*p*-phenyldiamine (IPPD) 0.1% pet. (Chemotechnique, Vellinge, Sweden);



**Fig. 1.** Contact allergy to benzyl salicylate. Bilateral and symmetrical eyelid erythema.

sesquiterpenelactone mix 0.1% pet., Mercury 0.5% pet. (both AllergEAZE, Calgary, Canada) and a cosmetic and fragrance series (Chemotechnique, Vellinge, Sweden). Exposure time was 2 days, and readings were performed on day (D) 2 and D4. On D4, a weak positive reaction (+) to benzyl salicylate 10% pet. was observed in both series. There were no reactions to other allergens.

Within a month, after avoidance of all products containing benzyl salicylate that the patient had contact with (i.e. Nelia® shower gel, Tulipán Negro® deodorant, Día® fabric softener, Día® nail-polish remover, and Anouk® cologne), the lesions had completely cleared, confirming a diagnosis of allergic contact dermatitis caused by benzyl salicylate.

## Discussion

Benzyl salicylate, i.e., salicylic acid benzyl ester, is found in many toiletries, cosmetics, and perfumes. Schnuch et al. (3) described a frequency of sensitization to benzyl salicylate of 0.1% and in the literature only one case of facial pigmented dermatitis caused by contact allergy to benzyl salicylate (4) has so far been described. Despite benzyl salicylate being a relatively common ingredient in cosmetics and fragrances (4), the low reported incidence seems to indicate a low risk of allergic contact dermatitis caused by benzyl salicylate.

This is, to our knowledge, the first case of facial allergic contact dermatitis with eyelid involvement associated with type IV hypersensitivity to benzyl salicylate. Despite

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the fact that benzyl salicylate is a weak sensitizer, we believe that reactions to benzyl salicylate should not be misinterpreted as irritant dermatitis, and that patch tests must be performed.

## References

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