

Contact Eczema of the Cheeks Due to Poppy Petal Powder

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BACKGROUND AND AIMS

Contact eczema is an inflammatory dermatosis caused by cutaneous exposure to allergens or irritants.¹ In recent years, unregulated natural products, particularly plants, have emerged as important sources of sensitisation. While often perceived as safe, these remedies can provoke allergic reactions through unconventional routes. Poppy (*Papaver rhoeas*) is rarely reported as an allergen,² yet its bioactive compounds may trigger hypersensitivity.

The authors report a case of allergic contact eczema affecting the cheeks following the application of poppy petal powder as makeup, aiming to raise awareness within the allergology community about this potential new allergen.

OBSERVATION

A 25-year-old woman presented with bilateral erythematous, scaly, and pruritic lesions on her cheeks, which appeared 48 hours after the application of poppy petal powder as makeup (Figure 1). Her history revealed the recent use of this powder, purchased from a local herbalist.

Standardised patch testing with a 10% preparation of poppy powder in petrolatum demonstrated a strong positive reaction to poppy (48-hour reading: +++; 72-hour reading: +++), while all other allergens, including common cosmetic sensitizers, tested negative. Patch testing remains the gold standard for confirming allergic contact dermatitis. Management consisted of immediate discontinuation of the offending product and application of a moderate-potency topical corticosteroid for 2 weeks, leading to complete remission.

DISCUSSION

This case represents an uncommon but clinically relevant instance of allergic contact eczema induced by *Papaver rhoeas* petal powder used as a cosmetic. While natural remedies are often promoted as safer alternatives to industrial cosmetics, they can contain potent sensitizers. Plants are frequent culprits in allergic contact dermatitis due to their alkaloids, flavonoids, anthocyanins, and other bioactive molecules capable of acting as haptens and triggering Type IV hypersensitivity reactions. Poppy petals, rich in pigments and secondary metabolites, represent a plausible source of sensitisation.

Reports of contact sensitisation to poppies are rare, as most publications on the *Papaver* species address pharmacological or traditional uses rather than allergenic potential. This case adds to the limited literature, illustrating the poppy's ability to induce delayed hypersensitivity and highlighting the risks of unregulated cosmetic practices, such as the direct application of powdered petals.

Diagnosis in this case was confirmed through patch testing, which showed a clear positive reaction to poppy powder and excluded cross-sensitisation to other cosmetic allergens such as fragrance mixes, preservatives, or nickel. Patch testing

Figure 1: Bilateral erythematous, scaly, and pruritic lesions on the cheeks appearing 48 hours after the application of poppy petal powder as makeup.



remains a crucial tool in recognising novel allergens and contributes to expanding the spectrum of documented sensitisers.³

From a therapeutic perspective, management was straightforward, combining prompt elimination of the culprit agent with a short course of topical corticosteroids, resulting in complete recovery. However, prevention is essential. Raising awareness among dermatologists, allergologists, and general practitioners about the risks of 'natural' cosmetics is critical. Equally important is educating patients, many of whom mistakenly believe that plant-derived products are inherently safe.

CONCLUSION

In conclusion, this case highlights an emerging risk associated with the use of unregulated, plant-based cosmetics.

Beyond its originality, it contributes to broadening the spectrum of recognised plant allergens and underscores the diagnostic importance of patch testing in identifying novel sensitisers. Vigilance from healthcare professionals, combined with patient education, is required to prevent similar cases and to ensure the safer use of natural products.

References

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