

Allergic contact dermatitis from black cumin (*Nigella sativa*) oil-containing ointment

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Black cumin (*Nigella sativa*), a member of the Ranunculaceae, is found in temperate and cold climates. Its seeds contain thymoquinone and monotropenes, and a variety of therapeutic effects on digestive disorders, gynecological diseases, and the respiratory system have been ascribed to them by ancient medical texts (1) as well as contemporary scientific publications (2). Side-effects of essential oils extracted from seeds include both irritant (3) and allergic contact dermatitis (4).

Case Report

A 31-year-old woman with an 8-month history of eczema on both

hands presented with an exacerbation. Throughout this time, and particularly just prior to exacerbation of the skin lesions, she had repeatedly applied an ointment containing essential oils extracted from the seeds of black cumin to her palms. This ointment is marketed as a skin care product.

On admission, a diffuse erythema along with vesicles, pustules, and scales was noted on both palms, spreading to the flexor forearms. The patient complained of severe itch. She had no history of atopy, and IgE was normal (23 kU/l). A biopsy from the left hypothenar eminence showed the pattern of subacute dermatitis. The lesions improved rapidly after initiation of topical corticosteroid treatment and avoidance of the ointment containing black cumin.

Patch tests were performed with the European standard series, emollients, fragrances, preservatives, the ointment used by the patient, and cold pressed black cumin and cumin, and showed ++ reactions to the ointment and black cumin only. Both were subsequently patch tested in five controls without any reactions.

Comment

Essential oils have become increasingly popular in the topical as well as systemic treatment of various diseases. Black cumin (*Nigella sativa*) is among those plants for which

a variety of therapeutic effects have been described (1, 2). Consequently, products containing essential oils derived from the seeds of black cumin are marketed for a large number of different indications. Earlier reports pointed towards the risk of developing allergic contact dermatitis from essential oils in cosmetics and perfumes (5). More recently, the first case of allergic contact dermatitis from topical black cumin oil has been documented (6). The case described here confirms its role as a potential contact allergen.

References

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