

Erythema Multiforme–Like Allergic Contact Dermatitis to Turmeric Essential Oil

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PRECÍS

Erythema multiforme like contact dermatitis is rare and has been reported with topical use of essential oil, but never to turmeric essential oil.

DISCUSSION

Turmeric, a spice containing curcumin, is a known contact allergen associated with contact urticaria and allergic contact dermatitis (ACD).^{1,2} Erythema multiforme–like ACD (EM-like ACD) is a noneczematous clinical variant of ACD.³ Although EM-like ACD has been reported in association with a number of allergens, it has never been reported with contact to turmeric essential oil.⁴

A 50-year-old man presented to a dermatology clinic with a 2-week history of an itchy rash on the bilateral knees that subsequently spread to the neck, trunk, and arms. He had applied topical turmeric oil for approximately 14 days to his right knee for osteoarthritis pain. Notably, he had no preceding illness, herpes labialis, or change in medications. Three days before presentation, he was seen at urgent care and was prescribed topical triamcinolone and a short taper of prednisone. After 3 days of prednisone



Figure 1. Physical examination findings. Targetoid papules and plaques on the trunk and bilateral arms.

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with progression of his symptoms, he presented for evaluation in our clinic.

On examination, he was generally uncomfortable with a low-grade fever. The right knee had a sharply demarcated violaceous plaque with overlying scale and desquamation, at the primary site of turmeric application. At sites without any historical turmeric application, including the posterior neck, chest, abdomen, back, penile shaft, bilateral arms, and legs, there were erythematous

targetoid papules and plaques (Fig. 1). The conjunctiva, oral mucous membranes, and urethral meatus were unaffected. Biopsies were obtained from the bilateral arms. Pathology showed orthokeratosis, spongiosis, interface dermatitis, and Civatte bodies with perivascular and interstitial eosinophils.

The clinical and histopathologic findings are consistent with EM-like ACD to turmeric oil. This is supported by the historical onset days after the application of turmeric oil, absence of typical EM-related prodromal syndrome (ie, herpes simplex virus or upper respiratory infection), presence of fixed nonurticarial lesions disseminated at sites where turmeric oil was not applied directly, and focal eczematous dermatitis at the site of turmeric oil application preceding the targetoid eruption. In addition, the histopathologic findings are consistent with published descriptions of EM-like ACD.³

The patient improved after intravenous methylprednisolone and transitioned to a prolonged prednisone taper. Outpatient patch testing to turmeric oil was offered for confirmation of the diagnosis but declined by the patient because of his desire to avoid a similar event.

Erythema multiforme-like ACD is caused by various topical chemicals in a type 4 hypersensitivity reaction.³ Erythema multiforme-like ACD to turmeric oil and other essential oils is rare. However, it is an important hypersensitivity pattern to recognize when historical information does not correlate to the clinical

examination. A history that includes topical application of possible allergens with subsequent cutaneous eruption is important in these cases.⁵ While topical and systemic steroids are effective treatment, identification and avoidance of the contact allergen are imperative for recovery and prevention of recurrence.^{4,5}

ZEBRA

Erythema multiforme-like contact dermatitis is rare and previously unreported in association with topical use of turmeric oil.

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