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Mango allergic contact dermatitis

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Introduction:

Mango contact dermatitis is mainly related to exposure to urushiol present in mango skin. Because the mango tree is a member of Anacardiaceae plant family, cross-reactivity reactions with poison ivy and oak are frequently found. We report a case of allergic contact dermatitis to mango in a 9-year-old boy.

Case report:

A healthy 9-year-old boy presented to the emergency department with erythematous itchy lesions around the mouth. An antibiotic treatment with clindamycin 30 mg/kg/day(d) was started due to suspected cellulitis. Despite this treatment, the lesions extended to the cheeks with the appearance of eyelid edema without dyspnea or tongue swelling. Treatment with oral prednisone 1 mg/kg/d and diphenhydramine 5mg/kg/d provided improvement. The patient was further referred to Dermatology. Physical examination revealed well-demarcated erythematous-squamous plaques on the tip of the nose, peri-oral region, chin, and cheeks (figure 1). The patient's mother reported a history of poison ivy contact dermatitis at age of 3 years. Further medical history revealed that he had eaten unpeeled mangoes the day before reaction. The diagnosis of allergic contact dermatitis to mango was retained.

Discussion:

The mango tree is from the Anacardiaceae family. Other known members of this family are poison ivy, poison sumac, and poison oak, which are the most common causes of contact dermatitis in North America.¹ Mango skin contains urushiol, the allergen that can sensitize and lead to delayed type IV hypersensitivity reactions. Skin lesions appear 24 to 48 hours after exposure to the allergen.^{1,2} The cross-reactivity reactions between different members of Anacardiaceae family are known.² The patient was previously sensitized to urushiol from contact with poison ivy. The pulp of the fruit doesn't contain this allergen.^{2,3} However, rare cases of allergic contact dermatitis to pulp are also reported.² Ingestion of peeled mangos had never induced an allergic reaction in this patient. In this case, the diagnosis of allergic contact dermatitis to urushiol was primarily based on medical history and physical examination. Theoretically, patch testing with exposure to mango skin could confirm the clinical suspicion. Nevertheless, due to the unpredictable concentration of urushiol in mango skin, there is a risk of both false negative reactions and active sensitization, why patch testing is not recommended.⁴

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Figure 1: Nine-year-old male patient with well-demarcated erythematous-squamous plaque on the tip of the nose, peri-oral region, chin, and cheeks.



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