Beyond Urushiol: Expanding the Diagnosis of Plant-Induced Allergic Contact Dermatitis

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Background
The true prevalence of plant-induced contact dermatitis is unknown because it is often under- or misdiagnosed.[1] Urushiol, a compound in *Toxicodendron* (poison ivy, poison oak, poison sumac), is currently the most common cause of plant allergic contact dermatitis (ACD) in North America. Increased use of patch test studies in the past decade revealed a plethora of other plants causing ACD. In the absence of management guidelines, lesser-known allergic plants and plant compounds may be mistaken for urushiol, preventing avoidance of the true allergen.

Objective
We aim to synthesize patterns in presentation, diagnosis, and management of plant-induced ACD through a narrative review of the literature and to propose mechanisms to optimize patch testing in these cases.

Methods
This narrative review utilized a literature search of Embase, PubMed, Scopus, and Web of Science in accordance with PRISMA guidelines.

Results
Patch testing remains the gold standard for diagnosing plant ACD and supports avoidance-based prevention. To improve the diagnostic yield of patch testing in cases of plant ACD, the standard patch set should be expanded to include cuttings and compounds from local flora, known allergenic plants, occupational exposures, and plants from the location of symptom onset when possible. Adjunctive tools, such as smartphone apps, botanist consultations, and commercial patch testing kits, can be helpful in the diagnostic and treatment process.

Conclusions
Plant-induced ACD is likely underrecognized. A structured testing technique guided by suspected exposure, supplemented by emerging technology and expert botanical consultation, may improve diagnosis, prevention, and management.