

Short Communication

Contact dermatitis from *Cnidoscolus angustidens*

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The Euphorbiaceae (spurge) family of plants encompasses 5000 species in 300 genera. The genus *Cnidoscolus* consists of 75 species of nettles, which possess stinging hair. *Cnidoscolus angustidens* is known to cause an especially severe eruption (1).

Case Reports

4 out of a group of 70 high-school teenagers developed a severe contact dermatitis while hiking on a trail in Tepoztlán, located 2 h from Cuernavaca, in central Mexico. 2 came for clinical examination. A 17-year-old girl developed 3 itchy erythematous patches on the dorsum of the hand up to 25 mm in diameter. She visited a local physician on the 2nd day after exposure and was treated with oral antihistamines. However, on the 3rd day, her condition had worsened and spread to the right leg and lower back. The rash on the lower back was in the form of a handprint and she believes her boyfriend transferred something from the plant that was on his hand. 8 days after exposure, she presented at our office with violaceous erythematous patches and brown pigmentation at exposed sites. She was treated with triamcinolone 40 mg IM. 2 weeks later, she returned with only hyperpigmentation at the sites and was prescribed azeleic acid cream. At 7 weeks after exposure, the pigmentation had almost entirely disappeared.

An 18-year-old boy hiked on a rocky path with bushes for 30 min and discovered scratches on his abdomen, back, and right hip later that evening. The next day, the scratches had turned a maroon-purple color and had expanded to approximately 0.5–1 cm. 3 days after exposure, the lesions became itchy and he applied topical antibiotic ointment without relief. He visited a local doctor who diagnosed contact dermatitis to “*mala mujer*” and prescribed an oral medicine, which did not help his symptoms. 10 days after exposure, he presented at our office with the lesions unchanged and was given triamcinolone 40 mg IM and azeleic acid cream. The lesions rapidly improved and at 3 months after exposure, only 2, 6-mm sites of brown pigmentation remain.

Discussion

C. angustidens (also known as “*caribe*” or “bad woman”) grows at between 2500 and 5000 ft in southern Arizona, Sonora, Baja California and other areas of Mexico. The plant grows from May to September and produces seeds similar to castor beans. It is a lush green with gnarled roots that are covered with white bulges and protruding spiny urticant trichomes. The trichomes are fluid-filled hollow hairs which easily penetrate skin and release their contents. The plant also produces prickly white flowers and a prickly fruit. *C. angustidens* contains edible oil and seeds and has the potential for domestication into a food crop in arid and semi-arid regions.

Reactions to *C. angustidens* are sparse in the medical literature. *Cnidoscolus* species are nettles, which are part of the family Euphorbiaceae (2). Many such species contain an irritant sap, latex or seed oil. *Cnidoscolus* species have stinging hairs which cause a non-immunologic contact urticaria with burning, itching, and sometimes swollen regional lymph nodes (1). Whereas common nettles produce a mild stinging reaction, the eruption caused by *C. angustidens* is so severe, it is described by 1 author as “nuclear glass daggers.” Proteases have been isolated from the leaves of this species and triterpenoids from the latex. The contents of the trichomes have not been elucidated. A high-MW component has been suggested, since exposure causes painful tenderness and swelling in distal superficial lymph nodes. Treatment with oral antihistamines may help with itching; however, it is unclear whether these reactions are mediated by histamine or by other vasoactive compounds. IM corticosteroids appeared to help our patients.

References

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