HOLIGARNA FERRUGINEA INDUCED ALLERGIC CONTACT DERMATITIS

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Contact dermatitis due to *Holigarna ferruginea* Hook f—a member of the family Anacardiaceae, was seen in 4 patients. In three cases, the diagnosis was confirmed by patch tests. The presence of pyrocatechols in the acrid juice was detected by simple laboratory procedures. A DNCB-like action of the purified extract is postulated.

Key words : *Holigarna ferruginea*, **Anacardiaceae, Pyrocatechols, Contact dermatitis.**

Diagnosis of plant dermatitis is likely to be easily missed. Many plant sensitizers are closely related chemicals such as catechols and lactones.[1] An Indian plant, *Holigarna ferruginea*—a member of the family anacardiaceae is known to produce dermatitis.[2] We report four cases of contact dermatitis due to *Holigarna ferruginea*.

Case Reports

Case 1

An 11-year-old boy developed pustular and crusted lesions over the exposed areas 2 days after cutting wood. He responded well with systemic antihistamines and Condy's compresses. *Holigarna ferruginea* (Fig. 1) was identified as the plant responsible for dermatitis by the patient. Patch and photopatch tests were performed and interpreted as described by Fisher.[3] Patch test read after 56 hours was positive.

Case 2

A 23-year-old man developed itching, erythema and vesicles over the flexural and the extensor aspects of both arms one day after cutting wood. As in case 1, *Holigarna ferruginea* was identified and an acetone extract of the plant showed positive patch test after 72 hours. Readings were negative after 24 and 48 hours. He responded well to topical measures.

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Fig. 1. The plant *Holigrana ferruginea.*

Case 3

A 20-year-old man developed erythematous papules and vesicles over the extensor aspect of right wrist. He had carried some plants five days prior to the onset of symptoms. Patch test was performed with acetone extract of *Holigarna furruginea* and was positive after 48 hours.

Case 4

A 14-year-old boy developed itching followed by vesiculation over his arms and face 3 days after handling *Holigarna ferruginea*. Patch test was performed but the patient was lost for follow up.

Patch tests with an acetone extract of *Holigarna ferruginea* were negative in 13 patients with other unrelated skin diseases. Acetone extract of the resin turned white with lead

acetate, green with ferric chloride and green with alcohol and caustic soda; thus confirming the presence of pyrocatechols.[1]

Comments

Anacardiaceae is a family of 60 genera and 600 species. Cashew nut, mango, poison ivy and Indian marking nut belong to this family. *Holigarna ferruginea*—a mamber of the anacardiaceae family, is commonly found in the western ghats, Coorg, Nilgris and low country of Travancore.[4] Nair et al,[5] identifying the active principle Laccol (3-heptadecadienyl catechol) have described *Holigarna arnottiana* as an Indian plant capable of causing dermatitis. After a susceptible person comes in contact with the oleoresin, the eruptions usually appear within 2 days and the delay of onset rarely exceeds 10 days.[1] Pyrocathechols are present in Anacardiaceae plants and can be detected in the laboratory. In our patients, the lesions were present mostly on the exposed areas and patch test was positive in 3 cases. Lapse of a minimum 2 days (except in case 2) before the onset of symptoms, and negative patch tests in 13 controls indicate to the allergic and not irritant origin of the contact dermatitis.

References

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