

## CONTACT DERMATITIS DUE TO SANDALWOOD (SANTALUM ALBUM LINN)

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A 64-year-old priest developed dermatitic lesions on the forehead, hands and feet which were suspected to be contact dermatitis due to sandalwood paste. Patch tests with sandalwood shavings and paste were 2+ positive. The dermatitis subsided within 7 days of stopping application of sandalwood paste and recurred in 10 days when the paste was reapplied.

**Key words : Sandalwood, Contact dermatitis.**

Sandalwood is obtained from the sandal tree (*Santalum album* Linn.), a small ever-green tree which is extensively grown in some parts of Karnataka and Tamil Nadu. The sapwood is white and scentless, while the heartwood is yellowish brown and has a strong scent.<sup>1</sup> The latter is popularly used for the manufacture of decoration pieces, idols and gift articles like key-chains, paper-knives etc. In addition, pieces of wood moistened with water are ground on a stone to prepare a paste that is applied to the forehead and other parts of the body as a caste mark. The paste is believed to have medicinal properties and is said to be useful in skin diseases.<sup>2</sup> Sandalwood oil extracted from the heartwood is widely used in the cosmetic industry and is incorporated into perfumes, soaps and talcum powders. The wood is also kindled at pujas and at the cremation ceremony of Hindus. Thus, there are ample opportunities for a person to come in contact with, and develop contact hypersensitivity to sandalwood. However, there are no reported cases of contact dermatitis due to sandalwood in spite of its widespread use. Siddappa<sup>3</sup> recorded a 1+ positive patch test with sandalwood in a patient with contact dermatitis suspected to be due to sandalwood. Patch tests with the wood performed in 8 normal controls were negative.

We report a patient who had contact dermatitis due to sandalwood paste applied to the forehead as a caste mark, and also on some other areas of body for medicinal use.

### Case Report

A 64-year-old priest developed a few small pustules on the left ankle 8 years ago for which he applied some native medicines. Within 2 days this led to itching, erythema and exudation at the site of application. On stopping the local medicines, the dermatitis subsided. Subsequently, he developed many episodes of itching, erythema and exudation of the skin of the feet, hands and a circumscribed area 3 cm × 2 cm in size at the centre of the forehead. Each episode was controlled by some tablets prescribed by a local practitioner, but would recur 7-10 days after stopping the tablets. When seen by us, he had an acutely inflamed, exuding, erythematous plaque studded with papulo-vesicles and pustules at the centre of the forehead. The dorsal surface of the fingers of both hands, both palms and the dorsal and plantar aspects of both the feet were similarly affected. The patient was admitted and given ampicillin 500 mg 4 times a day, chlorpheniramine maleate 4 mg 3 times a day, soap and water washes and fluocinolone acetone locally twice a day. The next day, the patient was noticed to have applied sandalwood paste on his forehead. This he had been doing for as long as he remembered. He had also been using sandalwood paste as a

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remedy for the lesions on his hands and feet. The patient was instructed to stop applying sandalwood paste, and within 7 days all the acute lesions on the forehead, hands and feet subsided completely. Patch tests performed with sandalwood paste and shavings from a sandalwood twig were 2+ positive.

A repeat patch test with sandalwood was again 2+ positive. The dermatitic reaction at the patch test site subsided in 5 days. The patient was then instructed to apply sandalwood paste on his forehead lesion and to a small normal-looking area on the forearm every day. The area on the forearm showed no change, but 10 days later he once again developed an edematous erythematous plaque studded with papulo-vesicles on the forehead (Fig. 1). This lesion subsided on stopping the application of sandalwood paste and using fluocinolone acetonide topically twice a day for 7 days.

### Comments

Photocontact dermatitis due to commercial sandalwood oil as an ingredient of an after-shave lotion was reported by Starke<sup>4</sup> in 1967. However, patch tests with the constituents of the commercial oil showed a positive reaction with geranium oil but no reaction with the pure sandalwood



**Fig. 1.** Dermatitic patch on the centre of forehead. oil. The patient recorded by Siddappa<sup>3</sup> is perhaps the first of its kind in India. It seems that sandalwood has a low sensitizing potential.

### References

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