

**CONTACT DERMATITIS USING PERICARP JUICE FROM AN INDIAN MARKING  
NUT AS A HOME REMEDY TO TREAT PATCHY HAIR LOSS**

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**ABSTRACT**

The Indian marking nut is the fruit of *Semecarpus anacardium* L.f., has been used in Indian traditional system of medicine, especially Ayurveda for various ailments. *Semecardium anacardium* Linn. belongs to Anacardiaceae family which also include poison ivy, poison sumac, mango, cashew nut, the rengas tree and the Japanese lacquer tree. It is distributed in Sub-Himalayan region, tropical and central parts of India. These plants collectively are most common sensitizers.

**INTRODUCTION**

The fruit and nut extract of *Semecarpus anacardium* Linn. shows various medicinal activities like anti-arthrogenic, antioxidant, anti-inflammatory, antimicrobial, central nervous system stimulant, hypoglycaemic, anticarcinogenic, anti-reproductive and hair growth promoter.<sup>[1,2]</sup> Chemical and phytochemical analyses of its nut reveal the presence of biflavonoids, phenolic compounds, bhilawanols, minerals, vitamins and amino acids. From dermatological perspective the most significant component of the marking nut is bhilawanol, which is known irritant and contact sensitizer.<sup>[3]</sup> Contact dermatitis frequently results from direct contact with the sap, and by transmission through hand contacts to distant sites such as face and genitals. Here, we present a patient who developed itchy facial skin lesions and periorbital oedema that developed after rubbing of marking nut sap over the scalp as a treatment of patchy hair loss.

**CASE REPORT**

A 59 year female presented with an itchy ill defined, diffuse erythematous rash of 3 days duration over her face with oedema of eyelids and both ears after applying sap of marking nut for patchy hair loss over scalp (figure 1). She had extracted the sap from the marking nut pericarp by puncturing it with a needle and had then applied the black-coloured sap directly by rubbing the nut over the scalp as a treatment for patchy hair loss (figure 2). The patient brought the nut to the hospital when seeking treatment for a facial rash. The patient's rash subsided in 5 days after treatment with oral prednisolone 40mg once daily, topical hydrocortisone 1% cream twice daily and oral hydroxyzine 25mg. She

did not give consent for patch testing due to fear of similar reaction.



**Figure 1: Diffuse erythematous rash face and ears with eyelid oedema.**



**Figure 2: Black-coloured marking nut sap applied over alopecia areata patch.**



**Figure 3: Marking nut with tarry black-coloured sap responsible for contact dermatitis.**

### DISCUSSION

The Indian marking nut is about 25 to 40mm long ovoid shaped blackish, glossy nut (figure 3) with exudation of black tarry sap when the nut is damaged.<sup>[1,2]</sup> This sap has been used as an indelible ink for marking clothes and caused washerman's dermatitis among british soldiers in the 1940s.<sup>[2,4]</sup> The major constituent in sap present in the pericarp of the fruit is anacardic acid bilawanol. Bilawanol A and B are known as urushiols and anacardic acid is closely related to urushiols.<sup>[3,4]</sup> Urushiol, an oleoresin, is common to various plants belonging to anacardiaceae family namely cashew nut, marking nut, poison ivy, poison oak, poison sumac, mango tree and the Japanese lacquer tree. Urushiol both act as primary irritant and an allergen.<sup>[5,6]</sup> In the present case, the sap of marking nut was prescribed in alopecia areata for its growth promoting properties.

**Conflicts of interest:** Nil.

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