

# Phytophotodermatitis: a diagnosis to consider

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## DESCRIPTION

A 3-year-old boy presented with pigmented (brownish) macules on his hands (figure 1), left arm (figure 2) and face (figure 3). The lesions appeared days after the boy played with common rue and were best noticed after sun exposure. Topical treatment with methylprednisolone 0.1% cream led to complete resolution within 2 weeks.

Rue (*Ruta graveolens*; Rutaceae family) is a common plant in the Iberian Peninsula. It is believed to protect against evil spells; it usually presents with yellow flowers and has an unpleasant odour (figure 4). Rue extracts are often used in ointments for treating strains and muscle pain.

Rutaceae plants contain psoralens or furocoumarins, which trigger a phototoxic eruption when activated by exposure to ultraviolet A radiation after contact with unprotected skin.<sup>1–3</sup> By binding to RNA and DNA, these activated psoralens induce inflammation and cell membrane damage.<sup>3</sup> Immediate washing is recommended after skin contact with rue. Exposure to sunlight and moist conditions (bathing or swimming) should be avoided in the first 48–72 h after contact.<sup>3</sup>

Typically, the acute lesions present with irregular erythematous areas, and sometimes vesicles and bullae, with sharp demarcation between lesional and uninvolved skin,<sup>1–3</sup> which can result in a burn-like wound. Pruritus may accompany but is not a



Figure 3 Irregular facial pigmented lesion.



Figure 4 Common rue.



Figure 1 Irregular pigmented lesions on both hands.



Figure 2 Irregular pigmented lesion on left arm.

major feature. As the lesions heal, they are replaced by pigmented macules, which slowly fade in the course of weeks to months.<sup>1–3</sup>

Although photodermatitis is common in adults, its diagnosis may be challenging in children, due to the variety of clinical presentations and not always easily identified trigger exposure.

Differential diagnosis must be carefully taken into consideration— infectious skin disorders, contact dermatitis and even child abuse, must be ruled out.<sup>3</sup>

## Learning points

- ▶ Phytophotodermatitis should be considered in any child who presents with pigmented/ brownish macules in skin-exposed areas.
- ▶ Since spontaneous healing of photodermatitis may take months, topical steroid therapy may accelerate resolution process.



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