

Perioral phytophotodermatitis induced by parsnip mash

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Phytophotodermatitis is a chemical reaction that occurs after exposure of phototoxic compounds to ultraviolet rays (UVA 320 to 380 nm).¹ Many plants, including parsnip, fennel, parsley, lemon, bergamot, aniseed, coriander, celery, and figs, may cause phytophotodermatitis,² because they contain natural photosensitizing compounds called furocoumarins (eg, 5-methoxypsoralen).³ When activated by UVA, furocoumarins release free radicals, which bind to the pyrimidine bases of DNA, damaging it and leading to cell death.¹ Skin reactions generally appear 24–72 hours after exposure, mostly after cutaneous contact, but some cases have been reported after ingestion of celery. The acute lesions often present with irregular erythematous streaks with vesicles or bullae and sharp demarcation on the exposed area.⁴ In the chronic phase, residual hyperpigmented macules can take months to years to resolve. This hyperpigmentation is caused by stimulation of the production of melanin by psoralen.¹ We report a case of prolonged perioral phytophotodermatitis in a young child after eating a parsnip mash outdoors.

CASE REPORT

A 10-month-old boy presented a perioral rash which appeared on a Monday in February 2019. He had no medical history or treatment. On examination, an apparently non-pruritic perioral erythema with some edema of the upper lip was noted. On day 2, the chin and both cheeks were affected by a painful swelling bullous eruption. His mother informed us that they had a picnic on Sunday in a park in Toulouse (France) and that the child had eaten a warm homemade parsnip mash. The eruption was located on the areas where the child had spread the mash around his mouth, leading to the diagnosis of phytophotodermatitis. Despite the application of topical corticosteroids associated with healing cream and topical antibiotics, honey-coloured crusts appeared on day 5. Thus, systemic antibiotic therapy became necessary. After 10 days, the plaques and blisters resolved, leaving residual pigmentation (Figure 1), which still persisted until day

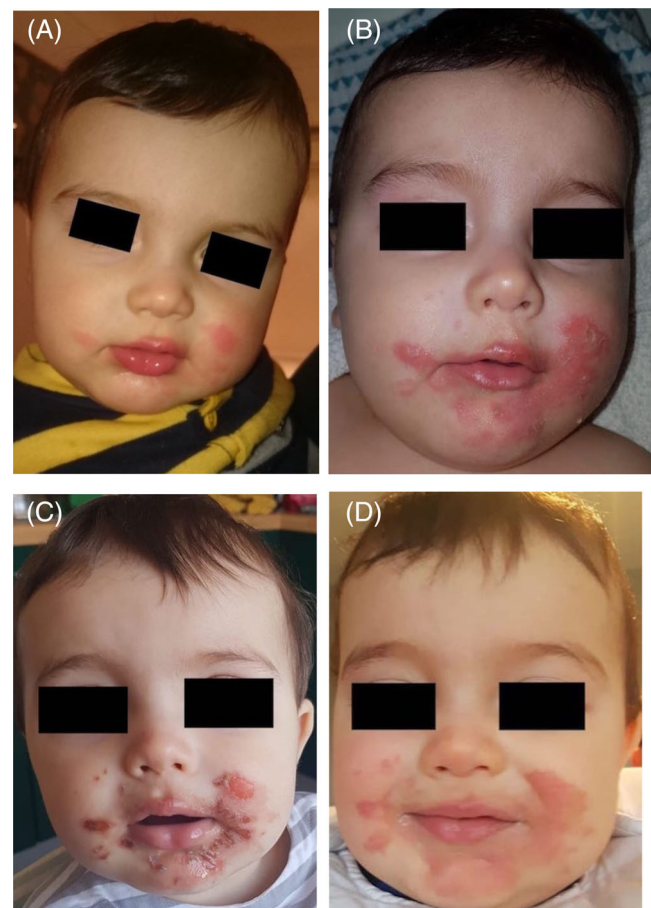


FIGURE 1 Photographs of the patient's face at (A) day 1, (B) day 2, (C) day 6, and (D) day 17

90 and gradually faded over the next 10 months, with enhanced photoprotection of the child.

DISCUSSION

Phytophotodermatitis can mimic other dermatological conditions such as allergic contact dermatitis, drug-related photosensitivity, severe burns, herpes, or bullous impetigo.⁴ Inquiring about plant or plant extract contact is essential to establishing the diagnosis, such as in our case. Treatment consists in application of healing creams and topical corticosteroids in severe eruptions. Local or oral antibiotics are used if secondary infection. Sun avoidance and external photoprotection with clothing is recommended during the healing phase.⁴

Prevention is important. However, most people are not aware of the potential adverse effect of these plants, as illustrated by the reported case of second degree burns in four children who played with fig leaves during a picnic.³ Parsnip is increasingly being used, notably in processed baby food; another case of phytophotodermatitis in a 6-month-old baby due to parsnip has been recently reported.² Sunscreens do not always provide good protection if their spectrum only covers UVB, and phototoxic reactions may occur even in weak sunshine.

Our case illustrates the severity and slow resolution of phytophotodermatitis induced by a parsnip mash. As this “forgotten” vegetable is becoming more and more fashionable, it is important to raise awareness among the medical community and the general public about this clinical effects of phytophotodermatitis, which can be severe.

CONFLICT OF INTEREST

The authors declared no conflicts of interest.

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