

Blistering Perioral Rash in an Infant

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An 11-month-old girl presented with a worsening perioral rash that began two days prior. The rash was present on both sides of her mouth and began to blister, peel, and darken. The infant had been slightly fussy according to her parents but had no recent illnesses.

Her medical history was unremarkable. Her parents denied any sick contacts or recent changes in routine.

On examination, a well-demarcated, erythematous, hyperpigmented, bullous rash with areas of erosion was present, primarily on the left side of her mouth.

Question

Based on the patient's history and physical examination, which one of the following is the most likely diagnosis?

- A. Primary oral herpes simplex
- B. Phytophotodermatitis
- C. Bullous impetigo
- D. Lip licker's dermatitis

Discussion

The correct answer is B: phytophotodermatitis. As suggested by the term, exposure to a light-sensitizing compound from plants (a furocoumarin) and UV light is required to cause this reaction. The acute eruption can range from minimal erythema to marked red edema and vesiculation within 24 hours after initial exposure. The rash is typically nonpruritic but can be painful. As the acute rash fades, hyperpigmentation appears which can last months to years [1].

While the features of the rash are characteristic, the distribution and shape are widely variable. The well-demarcated erythema, edema, and bullae appear in bizarre patterns on sun-exposed skin consistent with the area of plant exposure. Digitate or drip-like patterns may occur from citrus or celery juice that drips during food preparation. Linear patterns may occur from brushing up against outdoor plants such as wild parsnip or hogweed. While classic cases involve obvious sun exposure outdoors, window glass does not block the ultraviolet A waves that cause the phototoxic reactions of furocoumarins [2].



Figure 1: Perioral raised hyperpigmented rash.

Phytophotodermatitis can occur at any age, and eliciting a thorough history is necessary for an accurate diagnosis. Cases can be confused for poison ivy, herpes simplex virus infection, or even child abuse [2]. In this case, the patient had tried her first slice of lime prior to exposure to sunlight. A high natural concentration of furocoumarins is found in lime pulp and rind, which can cause a dramatic bullous form of phytophotodermatitis [3].

Primary oral herpes simplex infection typically presents with clusters of tiny vesicles and pharyngitis in children, but not linear lesions. Systemic symptoms are often present, including fever, malaise, irritability, and submandibular or cervical lymphadenopathy [4].

Bullous impetigo is caused by a *Staphylococcus aureus* strain that produces an epidermolytic toxin. Blisters form, and then break down into the classic honey-colored crust of impetigo before healing without a scar [5].

Lip licker's dermatitis is an irritant contact dermatitis, commonly seen in children, caused by the repeated wet/dry cycling of frequently licked lips. It presents as a red, fissured ring around the mouth that obscures the vermilion border.

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