

Cutaneous blisters after sun exposure

Bolhas cutâneas após exposição ao sol

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Keypoints

What is known

- Phytophotodermatitis is a cutaneous inflammatory reaction sunburn caused by contact with photosensitizing plant sub-clinical stances and exposure to UVA radiation.
- It presents as erythema and blisters with irregular, linear or bizarre configuration.

What is added

- Phytophotodermatitis can be misdiagnosed as lesions, being important to perform a complete history to make the diagnosis.
- Treatment consists in anti-inflammatory agents, tico steroids.

Introduction

A 12-year-old girl, with irrelevant past medical history, was taken to the emergency department because of one-day-long erythema of the dorsum of the hands with burning sensation, with progressive worsening to intense pain and blisters. Topic emollient and ice were applied at home with mild improvement. Two days before, she had been at a swimming pool and squeezed limes to make juice with posterior sun exposure. Contact with toxic substances was denied. Her mother presented similar lesions on thighs (Fig. 1). Physical examination revealed exuberant redness and heat on the dorsum of both hands, with two blisters on the right hand (Fig. 2). An occlusive silver dressing was applied and the patient was discharged home with analgesic therapy. Re-evaluation on the day after showed similar lesions, and blisters' debridement was performed. Next day, the lesions worsened, with significant swelling of both hands and emergence of new blisters. Phytophotodermatitis was suspected. Systemic and



Figure 1. Clinical image showing erythema on thighs.

topical corticosteroids and antihistamine were initiated without improvement.

Phytophotodermatitis is a cutaneous phototoxic inflammatory reaction caused by contact with photosensitizing plant substances (furocoumarins) and

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Figure 2. Clinical image showing erythema at dorsum of both hands and blisters on dorsum of the right hand.

exposure to UVA radiation^{1,2,3,4}. It presents as a burning erythema and blisters that appear 24 to 48h after the exposure, corresponding to the inflammatory stage^{1,4}. The erythema and blisters usually have a linear or irregular and bizarre configuration. Days after, the inflammation resolves and the lesions become hyperpigmented, taking weeks to months to disappear. The diagnosis is clinical and treatment consists of anti-inflammatory agents like topical or systemic corticosteroids and analgesics^{2,4}. In the

postinflammatory phase, bleaching agents can be used but have poor effectiveness. The authors present a case of phytophotodermatitis, pointing out the importance of a careful anamnesis, since it is the cornerstone for the diagnosis.

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Conflicts of interest

None.

Ethical disclosures

Protection of human and animal subjects. The authors declare that the procedures followed were in accordance with the regulations of the relevant clinical research ethics committee and with those of the Code of Ethics of the World Medical Association (Declaration of Helsinki).

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data.

Right to privacy and informed consent. The authors have obtained the written informed consent of the patients or subjects mentioned in the article. The corresponding author is in possession of this document.

References

1. Abugroun A, Gaznabi S, Natarajan A, et al. Lime-induced phytophotodermatitis. *Oxford Medical Case Reports*, 2019;11:470–472
2. Maniam G, Light KM, Wilson J. Margarita Burn: Recognition and Treatment of Phytophotodermatitis. *JABFM*, 2021;34.
3. Jacqueline F, Moreau MS, English JC, et al. Dermatology for Pediatric and Adolescent Gynecology. *J Pediatr Adolesc Gynecol*. 2014;93e94. <http://dxdoi.org/10.1016/j.jpap.2013.11.001>
4. Baugh WP, Lazzaro CC, Barnette D, et al. Phytophotodermatitis. *Medscape*. Last Updated Nov 2021. <https://emedicine.medscape.com/article/1119566-overview>.