

## CLINICAL VIGNETTE

# Avoid the Limelight

Meghana Frenchman, MD

### Case Report

A 48-year-old male with a history of asthma, PTSD, and alcohol use disorder, presented to his primary care physician with a rash involving his chest and abdomen. On exam, the patient had linear, erythematous eruptions and streaks across his torso. There were no blisters at initial breakout. (Figure 1.) The rest of the physical exam was unremarkable and his vital signs were stable.



**Figure 1**

He recently visited El Salvador with his 12-year-old son. They fished daily, cooked the fish on the beach, and used dozens of limes to flavor the fish. He wore swimming trunks, but never a shirt when fishing and cooking. His son helped him prepare the fish, also developed the same rash. Both went to a local doctor in El Salvador who diagnosed the rash and gave a cream with three ingredients. The patient came back to the United States for follow-up. The patient says his son's rash completely resolved and his rash improved after following the Salvadoran physician's instructions.

Diagnosis: *Phytophotodermatitis*

### Discussion

Phytophotodermatitis (also known “Mexican Beer Dermatitis” and “Margarita Disease”) can develop when the skin comes in contact with certain plants, and then is exposed to sunlight.<sup>1</sup> Common edible plants associated with phytophotodermatitis include lemons, limes, celery, fig, and parsley. These plants contain phytotoxic agents with varying concentrations of coumarin compounds. The furocoumarins in the plants undergo a chemical reaction from exposure to ultraviolet light.<sup>2</sup> This causes a local skin reaction on parts of the body are exposed to the plant material and subsequently become exposed to sunlight. The rash is usually non-pruritic, but can be painful, with bullae and blisters in severe cases. Treatment is generally symptomatic. Nonsteroidals are used to reduce the pain and topical steroids and cool compresses are used to accelerate healing. After the initial rash subsides, lingering hyperpigmentation may take weeks or even months to resolve.<sup>3</sup>

Phytophotodermatitis is commonly seen in spring and summer when there is more sun exposure.<sup>4</sup> It is classically seen in vacationers who spill a citrus drink on themselves, or in bartenders who work in outdoor bars or in field workers who pick fruit. Phytophotodermatitis can be prevented by wearing gloves, washing hands immediately after handling plants, wearing protective clothing, using sunscreen, and avoiding prolonged sun exposure.<sup>5,6</sup>

### Clinical Case Follow-Up:

For our patient, the combination of prolonged sun exposure while marinating fish with lime over several days resulted in the phototoxic reaction. The three-ingredient cream the patient received in El Salvador was a steroid/antibacterial/antifungal cream. The steroid helped to limit the rash. Within two months of the dermatitis, the patient reported that the rash had completely resolved.

### REFERENCES

1. **Frain-Bell W, Johnson BE.** Contact allergic sensitivity to plants and the photosensitivity dermatitis and actinic reticuloid syndrome. *Br J Dermatol.* 1979 Nov;101(5): 503-12. PubMed PMID: 518824.
2. **Lim HW, Hawk JLM.** Photodermatoses. In: *Dermatology*, 2<sup>nd</sup> ed. Bologna JL, Jorizzo JL, Rapin RP, eds. Elsevier Limited, 2008.

3. **Deleo V.** Sunscreen use in photodermatoses. *Dermatol Clin.* 2006 Jan;24(1):27-33. Review. PubMed PMID: 16311165.
4. **Flugman SL.** Mexican beer dermatitis: a unique variant of lime phytophotodermatitis attributable to contemporary beer-drinking practices. *Arch Dermatol.* 2010 Oct;146(10):1194-5. doi: 10.1001/archdermatol.2010.297. PubMed PMID: 20956675.
5. **Hankinson A, Lloyd B, Alweis R.** Lime-induced phytophotodermatitis. *J Community Hosp Intern Med Perspect.* 2014 Sep 29;4(4). doi: 10.3402/jchimp.v4.25090. eCollection 2014. PubMed PMID: 25317269; Pub Med Central PMCID: PMC4185147.
6. **Raam R, DeClerck B, Jhun P, Herbert M.** Phytophotodermatitis: The Other "Lime" Disease. *Ann Emerg Med.* 2016 Apr;67(4):554-6. doi: 10.1016/j.annemergmed.2016.02.023. PubMed PMID: 27015923.

Submitted September 11, 2018