

Case Letter

Lichenoid Photosensitivity: An Unusual Reaction to Doxycycline and an Unusual Response

To the Editor:

A 16-year-old adolescent girl was referred to the dermatology department for a possible lye burn. The patient's acne vulgaris was being treated with doxycycline for the last 7 months. During the spring months, she reported pruritic dermatitis comprised of pink polygonal papules with some confluence into plaques that developed on the dorsal aspect of the hands and forearms in a sun-exposed pattern (Figure). On evaluation, she also was noted to have a similar papule on the dorsal aspect of the nose with several papules on the knees and anterior aspect of the lower legs.

Given the physical findings, a presumptive diagnosis of a photosensitivity reaction to doxycycline was made. Alternative treatments were immediately reviewed with her, assuming that she would want to switch therapy. After further discussion, the patient indicated she had already tried minocycline with little improvement as well as a series of topical agents from a variety of classes that also produced inadequate results. She was satisfied with results from doxycycline therapy and did not want to switch. Several notable dermatologists in the area recommended discontinuing the doxycycline altogether due to the side effects. Because a literature review did not illicit any reports of photolichenoid reactions due to doxycycline, treatment was continued.

Jones et al¹ reported a case series of 3 patients with similar lichenoid reactions related to the antibiotic demeclocycline that responded to sunscreen application. With close follow-up, doxycycline was continued along with strict sun precautions and an avobenzone-based sunscreen as a compromise. The patient complied with the regimen of daily sunscreen use and decreased exposure, and the photosensitive reaction resolved without further treatment. She



Photolichenoid eruption on the dorsal aspect of the hands.

remains compliant with this regimen, with good control of her acne vulgaris and daily sunscreen use as benefits.

Learning to foster acne treatment adherence in teenagers truly is part of the art of dermatology. Several factors can improve success, such as suggesting a simple and common treatment and allowing teenagers to make the final decision.² In our case, we encountered a unique photosensitivity reaction. Lichenoid photodermatitis is rare, often presenting approximately 1 month after exposure to demeclocycline, fenofibrate, hydrochlorothiazide, diltiazem, isoniazid, enalapril, chlorpromazine, or clopidogrel.³

With the solution we devised for our patient, an important consideration was the specific sunscreen chosen. In a case series of Australian military personnel who used doxycycline for malaria prophylaxis with sunscreen, oxybenzone was shown to be ineffective in preventing photosensitive reactions. Instead, avobenzone derivatives and sunscreens containing zinc oxide were better choices for mitigation of doxycycline sensitivity due to their broader UVA spectra.⁴

The photolichenoid reaction present in our patient was an interesting and unusual event and may occur from a variety of medications. Continuing treatment through this side effect also was an unusual but successful solution for our patient. The element of patient variability makes dermatology a rewarding

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and ever-changing art and encourages us to find new solutions to old problems.

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