

A 50-year-old man presenting with rash after exposure to sunlight

Subhankar Chakraborty

Department of Internal Medicine, University of Nebraska Medical Center, Omaha, NE, USA

Correspondence to: Subhankar Chakraborty, MD, Ph.D. Department of Internal Medicine, University of Nebraska Medical Center, Omaha, NE 68198-2055, USA. Email: schakra@unmc.edu.

Abstract: Photodermatoses is a condition characterized by development of a skin rash following exposure to sunlight. Here we present the case of a patient who presented with pigmented, pruritic, blistering rash that developed shortly after exposure to sunlight. Careful history revealed that the patient was on suppressive therapy with doxycycline for osteomyelitis. Following stopping of doxycycline, and symptomatic treatment, the patient had significant improvement in symptoms. The case illustrates that clinicians should be cognizant of drug induced photodermatoses particularly in individuals exposed to high doses of ultraviolet radiation.

Keywords: Phototoxicity; ultraviolet; doxycycline

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A 50-year-old man presented with complaints of redness, swelling and blistering rash over the dorsum of the hands, dorsal forearms (*Figure 1A,B*), bridge of nose and malar area (*Figure 1C*) which erupted 10 days back, about half an hour after exposure to sunlight. Ventral forearm was not affected (*Figure 1D*). He had never had similar problems before. Further questioning revealed that he had been on doxycycline for the last 3 months as suppressive therapy for osteomyelitis. Based on history of exposure to doxycycline and distribution of the rash (confined to sun exposed areas), a diagnosis of phototoxicity was made. Phototoxicity is a non-immunological reaction to sunlight in response to agents that are activated by ultraviolet (particularly UVA) light to generate reactive oxygen species

which damage cell membranes. Systemic drugs that cause phototoxicity include tetracyclines (doxycycline), thiazides, phenothiazines (chlorpromazine), antifungals (voriconazole and griseofulvin), fluoroquinolones, retinoids, nalidixic acid and nonsteroidal anti-inflammatory drugs (piroxicam and ketoprofen). Clinically, phototoxic reaction appears like exaggerated sunburn. It usually evolves within minutes to hours after exposure to sunlight, and in severe cases develops into vesicles and bullae. Our patient was treated by stopping doxycycline, and prescribed a combination of H1 (loratidine) and H2 receptor blockers (ranitidine), topical emollient and oral prednisone (20 mg daily for 5 days) and advised to avoid sun exposure. On follow-up his symptoms had improved.



Figure 1 Rash on sun exposed areas of the skin in patient on doxycycline.

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