

Doxycycline-Induced Subungual Phototoxicity in an Adolescent Treated for Lyme Arthritis

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Doxycycline is first-line therapy for Lyme disease and is increasingly prescribed in pediatric patients.¹ Photosensitivity is a recognized adverse effect, though subungual phototoxicity is rarely reported.² We describe a case of painful subungual erythema occurring after ultraviolet exposure during doxycycline therapy for Lyme arthritis.

A 13-year-old male receiving doxycycline for Lyme arthritis presented with severe pain and bright erythema beneath all fingernails after prolonged sun exposure during a sailing event. He had been taking doxycycline for approximately two weeks prior to symptom onset. Examination demonstrated striking subungual erythema with sharply

demarcated tanning of the distal fingertips [Figures 1,2]. The patient reported wearing extensive sun-protective clothing but used fingerless gloves, leaving the fingertips and nail beds exposed to ultraviolet radiation.

Doxycycline-associated photosensitivity is well recognized; however, subungual phototoxicity is an uncommon manifestation and may precede photo-onycholysis. Nail bed involvement is thought to rarely occur because ultraviolet light penetrates the nail plate poorly and is further dissipated by surrounding melanin protection.³ Although our patient did not develop photo-onycholysis, he experienced significant pain requiring supportive care, which consisted of oral analgesics, cool compresses, topical emollients and strict sun avoidance. No further intervention for the phototoxic reaction is typically needed, as the cutaneous and subungual inflammation is entirely self-limiting once the ultraviolet exposure ceases and the drug is cleared from the patient's system.³

As doxycycline use increases in regions endemic for Lyme disease, clinicians should counsel patients regarding comprehensive ultraviolet protection, including commonly overlooked areas such as the fingertips and nail beds.^{1,4}

Figure 1. Subungual erythema and distal fingertip tanning in a patient with doxycycline-induced phototoxicity following ultraviolet exposure.

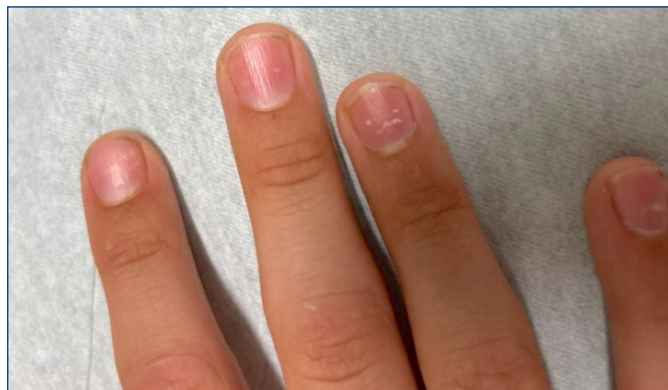


Figure 2. Bilateral hand involvement in doxycycline-induced phototoxicity. Right hand in forefront of image, and left hand displaying subungual erythema and distal fingertip tanning following UV light exposure.



References

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Disclosure

The authors declare no conflict of interest or financial relationships.

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