

Clinical Image

A Case of Doxycyclin-induced Photo-onycholysis with Dermoscopic Features

Elmas and Akdeniz. Doxycyclin Induced Nail Photo-onycholysis

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A 16-year-old boy was referred to us with asymptomatic nail discoloration affecting the fingernails. The patient was on 200 mg/day oral doxycyclin treatment for 6 weeks due to Brucellosis. The remaining medical history was unremarkable except for intense sun exposure. Dermatological examination revealed distal black and brown discoloration with half-moon-shaped edges affecting all the fingernails (Figure). On dermoscopic examination, blue to black discoloration, brown dots and proximal brown discoloration with sharp linear edges were observed (Figure). No yellow oil spots, blood spots, pitting or subungual hyperkeratosis were detected. No cutaneous lesions were observed elsewhere. Direct microscopic examination with potassium hydroxide preparation showed no fungal element. Bacteriological investigations revealed no infectious agents. A diagnosis of doxycyclin-induced photo-onycholysis was made.

The patient was consulted to the infectious diseases department and doxycyclin was stopped. The case was started on a combination of rifampicin and trimethoprim-sulphamethoxazole. A control examination was scheduled for 6 weeks later but the patient did not present again. Written informed consent was obtained from the patient.

Onycholysis defines the separation of the nail plate from the nail bed and may involve one or more nails. The separated part often shows a half-moon shape and appears whitish due to the separation of the nail plate from the vascular nail bed. Some cases of onycholysis may show blue to black discoloration due to subungual accumulation of dirt (1). Our patient also showed black to blue discoloration, which was possibly caused by exogenous dirt.

Physical trauma and some dermatological and general medical conditions may cause onycholysis. Tetracycline, ciprofloxacin, griseofulvin and docetaxel were reported to cause onycholysis (1-3).

Photo-onycholysis is a rare phototoxic reaction caused by prolonged and intense ultraviolet exposure that results in onycholysis. It has been suggested that doxycycline-induced phototoxicity is related to lumidoxycycline, which is a photo product of doxycycline (3, 4). In our case, brown nail discoloration with sharp linear edges and the history of intense sun exposure were in favor of a diagnosis of photo-onycholysis. Although the evidence for photo-onycholysis was indirect, the sparing of the photo-protected toenails strongly supported the diagnosis.

Dermoscopic findings of many nail conditions have been described in detail. However, to the best of our knowledge, dermoscopic features of photo-onycholysis have not been identified before. In the present case, dermoscopic examination facilitated the diagnosis by enhancing the appearance of brown dots and proximal brown discoloration with sharp linear edges, which are suggestive of photo-onycholysis.

Keywords: Dermoscopy, doxycycline, nail

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FIG. A) Distal black nail discoloration with a half-moon shape affecting the fingernails. **B)** Dermoscopic examination shows blue to black discoloration, brown dots and proximal brown discoloration with sharp linear edges.

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