

Clinical Image

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Nailing the diagnosis

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An 81-year-old man was referred to our nail clinic in November 2023 due to two black hard masses on his second digit toenails bilaterally. He was treated for onychomycosis with topical ciclopirox for a year. The masses were found to be sitting atop the nails (Figure 1A). History revealed that the patient developed these lesions over time and applied the lacquer nightly without breaks. Nail polish remover and nail clippers gently removed the masses. Microscopic examination of the sticky contents revealed fibers from the patient's black socks within the masses (Figure 1B).

Onychomycosis is a fungal nail infection primarily caused by the dermatophyte *Trichophyton rubrum* [1]. Moderate-to-severe cases are commonly treated with oral antifungal medications, including terbinafine, itraconazole, griseofulvin, or off-label fluconazole, with treatment typically lasting at least three months [1, 2]. For mild-to-moderate cases, topical antifungals such as ciclopirox (8 % lacquer), efinaconazole (10 % solution), or tavaborole (5 % solution) are preferred and applied once daily for at least 48 weeks [1, 3]. These topical options are popular with patients because of limited systemic adverse effects and drug-drug interactions. The most common adverse effects reported with all three topical solutions were drug ineffectiveness, discoloration, and erythema [1, 4].

Given the widespread use of topical antifungal lacquers in clinical practice, we recommend counseling patients on appropriate application – emphasizing the importance of allowing the lacquer to dry before wearing socks or stockings – and removing it weekly with alcohol to prevent this unique side effect from continuous application of ciclopirox.

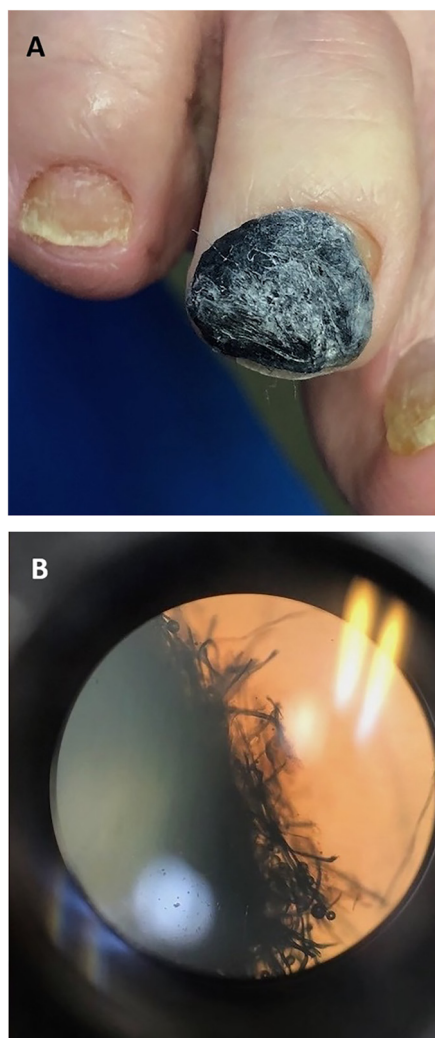


Figure 1: Pre- and post-removal of toenail black mass. (A) Black mass on a nail of an 81-year-old man undergoing treatment with ciclopirox lacquer for onychomycosis. (B) Microscopic examination of the black mass after removal.

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Use of Large Language Models, AI and Machine Learning

Tools: None declared.

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