

## Reflectance Confocal Microscopy in Tinea Nigra: A Diagnostic Teaching Point

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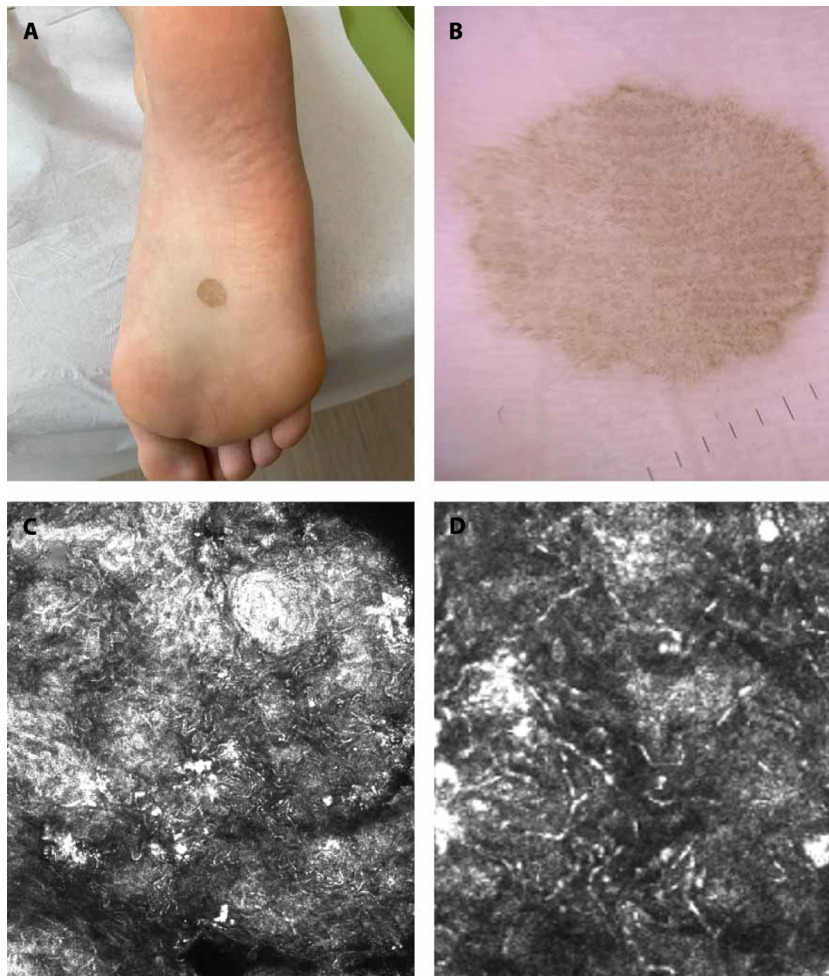
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### Case Presentation

A 24-year-old woman presented with a single asymptomatic brown macule located on the sole of the right foot (Figure 1A) after returning from a trip to Brazil. Dermoscopy showed linear and dotted brown superficial structures with homogeneous distribution, which did not follow furrows or ridges, a pattern compatible with tinea nigra (TN) (Figure 1B). Reflectance confocal microscopy (RCM) showed the presence of septate partitioned hyphae in stratum corneum (Figure 1C and D). Direct KOH test showed septate hyphae, confirming the diagnosis of TN. The lesion resolved completely after a course of topical terbinafine 1% twice daily for three weeks.

### Teaching Point

TN is an uncommon superficial mycosis caused by *Hortaea werneckii* characterized by deeply pigmented macular non-scaly patches. It can be misdiagnosed as a malignant melanoma or a junctional melanocytic nevus based on clinical features alone [1]. RCM is a noninvasive imaging tool that allows for the observation of tissues with in vivo quasi-histological resolution. In the case of TN, it is possible to observe the characteristic filamentous, septate, elongated branching structures that correspond to the hyphae in the stratum corneum [2]. As noninvasive tools such as RCM become more readily available, we believe it is necessary to open discussion regarding the use of them in daily dermatology practice



**Figure 1.** (A) Clinical photograph, (B) dermoscopy, and (C, D) reflectance confocal microscopy of the lesion. In (A) a brown macule of 10 mm in diameter is observed. In (B) there are linear and dotted brown superficial structures with homogeneous distribution which do not follow grooves or ridges. In (C) there are septate hyphae septate in stratum corneum, with higher magnification and marked with arrows in (D).

beyond skin cancer for the diagnosis of viral, fungal, and ectoparasitic infections, as it allows more precise diagnostics, reduces time and costs, and avoids potentially harmful invasive procedures.

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