



## Role of Dermoscopy in Distinguishing *Tinea Nigra* from Acral Nevus

*Papel da dermatoscopia na distinção entre tinea nigra e nevos melanocíticos acrais*

DOI: <http://www.dx.doi.org/10.5935/scd1984-8773.20221400108>

### ABSTRACT

Dermoscopy is a practical, non-invasive tool that can be used to distinguish tinea nigra from other lesions that appear macroscopically similar, including acral nevus. Under dermoscopy, tinea nigra presents with a pattern of spiculated gray-brown pigment deposition, whereas acral nevus most often presents as brown pigment deposition in a parallel furrow pattern.

**Keywords:** Dermoscopy; Nevus; Tinea

### RESUMO

A dermatoscopia é uma ferramenta prática e não invasiva que pode ser usada para distinguir a tinea nigra de outras lesões que parecem macroscopicamente semelhantes, incluindo o nevo melanocítico acral. Sob a dermatoscopia, a tinea nigra se apresenta com um padrão de deposição de pigmento marrom-acinzentado espiculado, enquanto o nevo melanocítico acral geralmente se apresenta como deposição de pigmento marrom em um padrão de sulco paralelo.

**Palavras-chave:** Dermatoscopia; Nevo; Tinea

## Case report

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**Financial support:** None.

**Conflict of interest:** None.

**Submitted on:** 29/10/2021

**Approved on:** 17/01/2022

### How to cite this article:

Nguyen B, Tosti A. Papel da dermatoscopia na distinção entre tinea nigra e nevos melanocíticos acrais. Surg Cosmet Dermatol. 2022;14:e20220108.

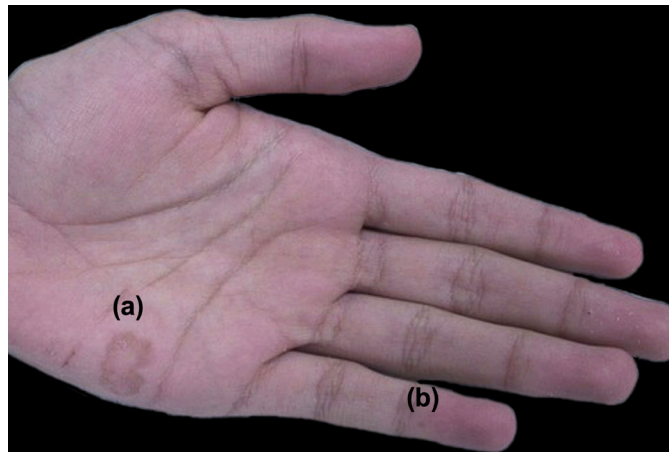


## INTRODUCTION

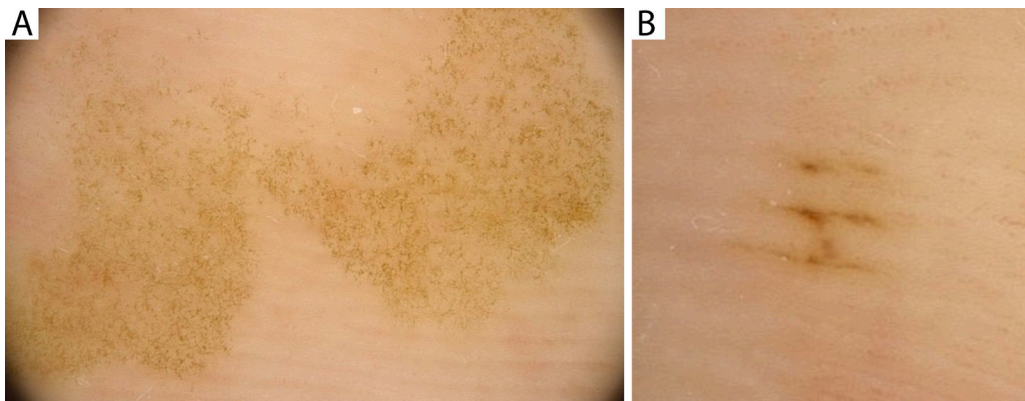
Tinea nigra is an uncommon superficial mycosis of the stratum corneum caused by *Hortaea werneckii*, an ascomycetous yeast thought found primarily in soil, compost, and wood in (sub)tropical regions. It is characterized by the insidious onset of an asymptomatic brown-to-black macule with discrete borders. The lesions are usually unilateral and solitary, though multiple lesions can also be present. Tinea nigra preferentially affects the palmar surfaces of the hands and plantar surfaces of the feet, though they can occasionally extend to the fingers and toes. Spontaneous resolution of lesions is unlikely but has been reported.<sup>1</sup> Topical antifungal agents generally resolve tinea nigra within 2-4 weeks.<sup>2</sup>

## CASE PRESENTATIONS

A 14-year-old man with no significant family or medical history presented to the clinic with a brown lesion on his left palm for “years.” He reported no pain or discomfort. The patient was born in Cuba and moved to the United States when he was 8. He denied significant travel history. The physical exam showed a visible macular lesion with sharp borders on the left palm in the hypothenar region (Figure 1A) and a smaller adjacent macular lesion on the left 5th digit (Figure 1B). Dermoscopy of the hypothenar lesion revealed deposition of regular gray-brown spicules (Figure 2A). Also, dermoscopy of the adjacent 5th digit lesion showed brown pigment deposition predominantly in the linear furrows consistent with acral nevus (Figure 2B). Potassium



**FIGURE 1:** Macroscopic appearance of a well-demarcated macular lesion (A) on the hypothenar region of the left palm and an adjacent acral nevus (B) on the left 5th digit

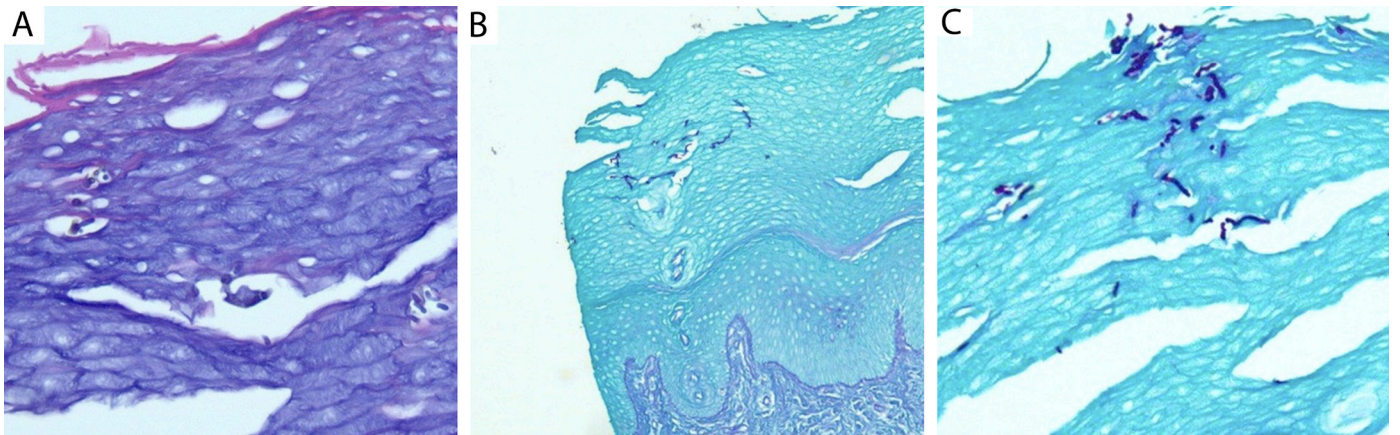


**FIGURE 2:** Videoscopic image of macular lesion showing deposition of gray-brown spicules on the hypothenar region of the left palm consistent with *tinea nigra* (A) and an adjacent acral nevus with brown pigment deposition in the epidermal ridges in a parallel furrow pattern on the left 5th digit (B).

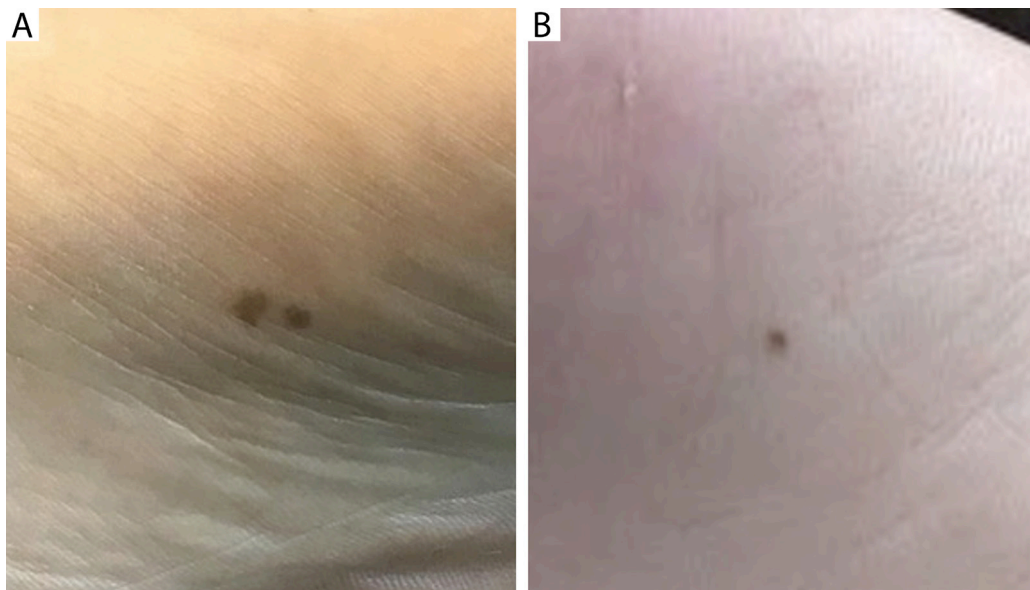
hydroxide (KOH) preparation from skin scrapings of the left palmar lesion showed branched brown hyphae with light brown septa. The subsequent polymerase chain reaction was positive for *Hortaea werneckii*. We observed mild acanthosis and hyperkeratosis on hematoxylin and eosin (H&E) stain (Figure 3A), and periodic acid-Schiff (PAS)-positive septate hyphae within the stratum corneum, consistent with *tinea nigra* (Figure 3B).

A 43-year-old man with no significant family or medical history presented to the clinic with a brown macular lesion on the sole of his left foot, as well as a smaller brown macular lesion

on the sole of his right foot (Figure 4A-B). He reported no pain or discomfort. The physical exam was otherwise unremarkable. The patient was born in the United States and denied relevant travel history. Dermoscopy of the left foot lesion revealed a pattern of spiculated gray-brown pigment deposition suggestive of *tinea nigra* (Figure 5A), confirmed on biopsy. Also, dermoscopy of the smaller brown lesion on the right foot showed pigment deposited predominantly within the furrows suggestive of acral nevus (Figure 5B).

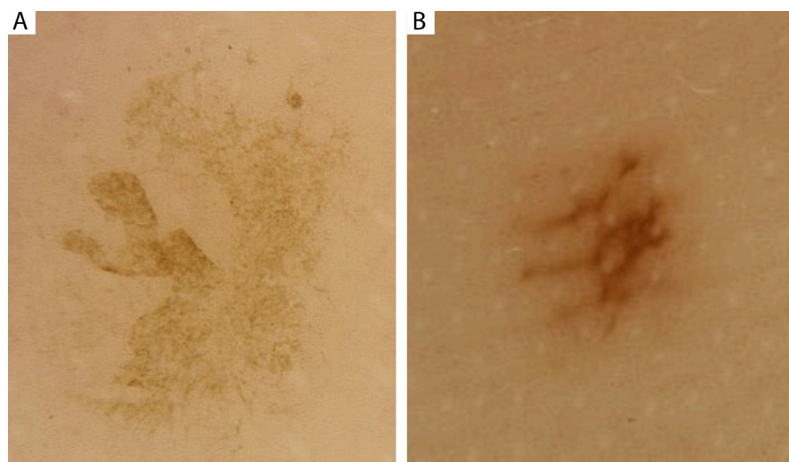


**FIGURE 3:** Hematoxylin and eosin (H&E) stain of left palmar macular lesion showing mild acanthosis and hyperkeratosis (40x) (A), and periodic acid-Schiff (PAS) stain showing PAS-positive septate hyphae within the stratum corneum (10x) (B), (40x) (C) consistent with *tinea nigra*.



**FIGURE 4:** Macroscopic appearance of two brown macular lesions on the sole of the left foot (A) and a similar smaller brown lesion on the sole of the right foot (B).





**FIGURE 5:** Dermoscopy of brown macular lesion on left foot showing a pattern of spiculated gray-brown pigment deposition consistent with tinea nigra (A) and smaller brown lesion on right foot showing pigment deposited preferentially within the furrows consistent with acral nevus (B)

## CONCLUSION

Given the macroscopic appearance and distribution of its lesions, tinea nigra can resemble many other conditions, including acral nevi<sup>3</sup> and acral lentiginous melanoma<sup>4</sup>. Prompt and accurate recognition of tinea nigra is required to minimize unneeded invasive diagnostic testing, such as surgical excision. Dermoscopy can provide a quick, non-invasive, and accurate diagnosis. The dermoscopic hallmark of tinea nigra is the presence of gray-brown or light brown spiculated pigments distributed throughout the skin without preference for ridges or furrows.<sup>5,6</sup> In contrast, dermos-

copy of acral nevi most often reveals unevenly distributed brown pigment in a parallel furrow pattern.<sup>7</sup> One study of 50 cases found that the presumptive diagnosis of tinea nigra was made in 7/13 (53%) of cases when dermoscopy was used, as compared to 0/37 (0%) of cases that did not use this method ( $P < 0.001$ ).<sup>6</sup> Recent case reports<sup>8-10</sup> have confirmed the similar diagnostic utility of dermoscopy in tinea nigra. Our two cases reiterate the importance of dermoscopy in the clinical evaluation of these lesions to ensure prompt diagnosis and treatment initiation while minimizing the need for invasive testing. ●

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Approval of the final version of the manuscript; study design and planning; preparation and writing of the manuscript; data collection, analysis, and interpretation; active participation in research orientation; intellectual participation in propaedeutic and/or therapeutic conduct of studied cases; critical literature review; critical revision of the manuscript.

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