

## UV Dermoscopy as a Diagnostic Tool to Differentiate Between Pediculosis and Piedra Branca

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**Citation:** Spina Papaleo B, de Sá Menezes Carvalho G, Camargo Julio Valinoto G, Verrinder Veasey J. UV Dermoscopy as a Diagnostic Tool to Differentiate Between Pediculosis and Piedra Branca. *Dermatol Pract Concept*. 2024;14(3):e2024144. DOI: <https://doi.org/10.5826/dpc.1403a144>

**Accepted:** January 23, 2024; **Published:** July 2024

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**Funding:** None.

**Competing Interests:** None.

**Authorship:** All authors have contributed significantly to this publication.

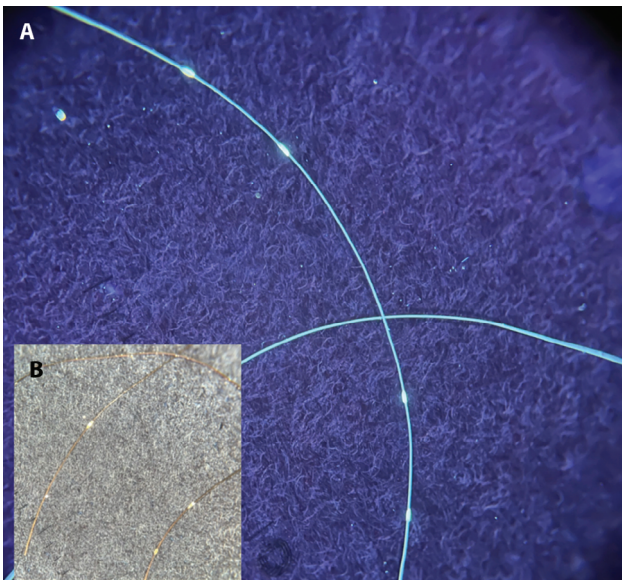
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### Case Presentation

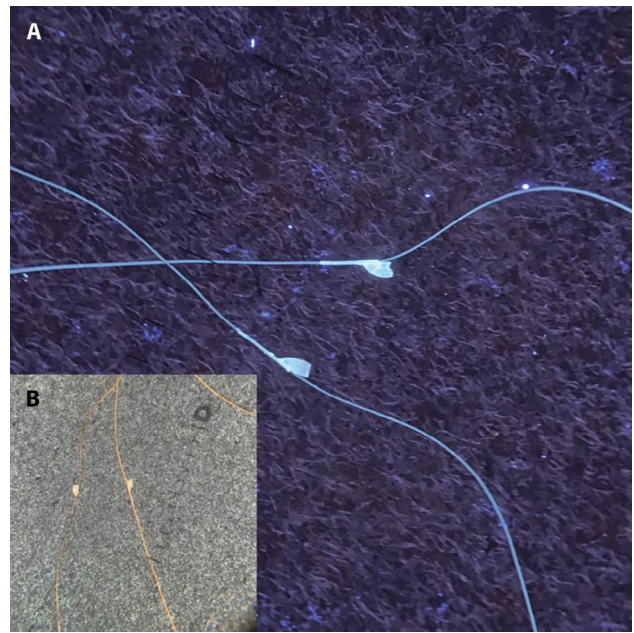
A 4-year-old girl presented with a 3-month history of white nodules on hair, most evident on wet hair. There was no associated pruritus. The patient was being treated with permethrin 1% solution, without success. Examination with polarized dermoscopy revealed clear and soft white nodules on the hair shaft, and direct observation made the diagnosis of white piedra. UV induced fluorescence dermoscopy made the nodules more evident, in what we called a “constellation pattern” (Figure 1A). On the same week, a 6-year-old girl presented with a month history of pruritus and white nodules on hair. Dermoscopy showed similar white nodules on the hair shaft, but UV Dermoscopy showed a different presentation: a tulip pattern, which showed nits adhering to the hair through its glue, making the diagnosis of pediculosis more accurate (Figure 2a).

### Teaching Point

White piedra is a hair mycosis, presenting as white nodules on the hair [1], treated with ketoconazole. Pediculosis is a parasitic infection of the scalp, presenting with intense itching and the presence of nits, which adhere to the hair through a sheath made of aminoacids [2], and it is treated with permethrin. Clinically, they are sometimes indistinguishable, and although trichoscopy can help, it can also be similar [2]. UV dermoscopy, on the other hand, allows for accurate diagnosis evidencing what we call a constellation pattern in piedra branca and a tulip pattern in pediculosis, which can be very useful for clinical diagnosis when direct examination through optical microscopy is not available.



**Figure 1.** (A) UV dermoscopy revealing clear and soft white nodules on the hair shaft (Dermlite DL5 paired with iPhone - 20x zoom). (B) Polarized trichoscopy of piedra branca, with the same white nodules (10x zoom).



**Figure 2.** (A) UV dermoscopy of pediculosis, showing a tulip pattern and making the pediculosis glue more visible (20x zoom). (B) Polarized trichoscopy of pediculosis, very similar to piedra branca dermoscopy, showing white nodules on the hair shaft (Dermlite DL5 paired with iPhone - 40x zoom)

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