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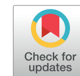
Tinea Capitis: Bedside Diagnosis by Dermoscopy



An otherwise healthy 8-year-old girl presented with a 2-month history of mildly pruritic, area of alopecia on her scalp. Examination revealed a well-circumscribed, annular (4 × 3 cm), slight scaly, noninflammed, grayish-white patch of hair loss (**Figure**, A). Marked hair fragility was elicited on hair pull; no cervical lymphadenopathy was noted. Other mucocutaneous sites were uninvolved. Dermoscopic (Dermlite, DL4, polarized/contact mode, 10×, San Juan Capistrano, California) evaluation of the alopecic patch showed multiple black dots, comma hair, and corkscrew hair along with peripilar scales (**Figure**, B). Wet mount with 10% potassium hydroxide of skin scraping and pulled hair revealed branched, septate hyphae and spores within the hair shaft. Based on the clinicodermoscopic and microbiologic findings, a diagnosis of tinea capitis was established. The lesion healed with a 4-week course of systemic and topical anifungals without any residual scarring.

Tinea capitis is a dermatophytic infection of the scalp hair follicle that shows a propensity toward the pediatric age group. The condition commonly presents as solitary or multiple fine scaly alopecic patch(es) with marked hair fragility which mimics other conditions like alopecia areata, trichotillomania, discoid lupus erythematosus, or lichen planopilaris.[1] Confirmation of diagnosis of tinea capitis requires visualization of fungal elements with 10% potassium hydroxide mount of affected hair sample or by isolation of fungi in Sabouraud agar. However, characteristic dermoscopic features in tinea capitis like comma hair (disintegrated, cracked, and bent owing to the presence of fungal hyphae within the hair shaft), corkscrew hair (a variant of comma hair and a marker of endothrix), black dots (broken, dystrophic hair), Morse code-like hair (interrupted horizontal white bands, bar code-like hair), zigzag hair (unusual bends owing to hair shaft invasion), and peripilar scaling, rules out other differentials and aides in the diagnosis.[2] Scalp dermoscopy represents a noninvasive, rapid, bedside diagnostic modality and circumvents the need for laboratory investigations. An early diagnosis and prompt treatment is essential to avoid any permanent damage to the hair follicle and thus prevent scarring alopecia. ■

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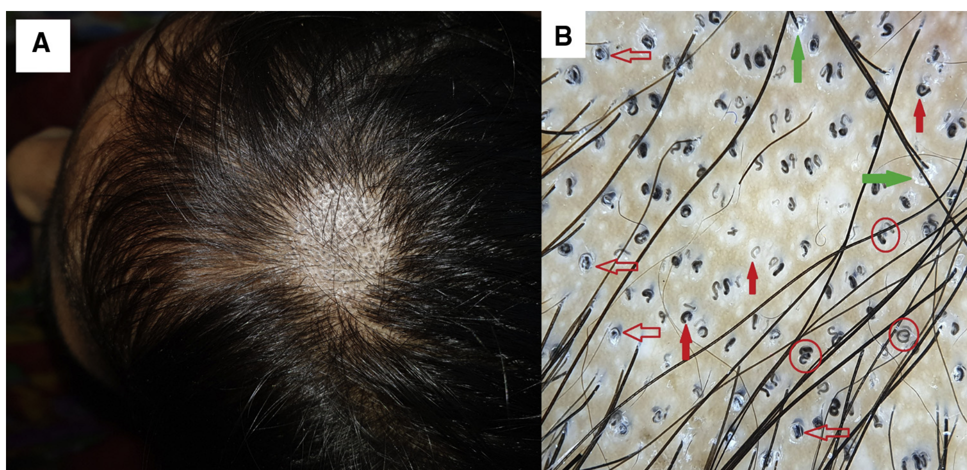

Figure. A, Well-circumscribed, annular, grayish-white alopecic patch over the scalp. **B,** Dermoscopy (Dermlite DL4, polarized/contact mode, 10×) of the alopecic patch showed multiple black dots (*empty red arrow*), comma-shaped hair (*solid red arrow*), corkscrew hair (*red circle*) along with peripilar scales (*green arrow*).

References

1. Hay RJ. Tinea capitis: current status. Mycopathologia 2017;182:87-93.
2. Elghblawi E. Idiosyncratic findings in trichoscopy of tinea capitis: comma, zigzag hairs, corkscrew, and Morse code-like hair. Int J Trichol 2016;8:180-3.

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