Case Letter

Dermatophytid in tinea capitis: A phenomenon to keep in mind

Fatima Zahra Hashas, Zakia Douhi, Kaoutar Mejjati, Meryem Soughi, Sara Elloudi, Hanane Baybay, Fatima-Zahra Mernissi

Department of Dermatology, University Hospital Hassan II, Fes, Morocco

Corresponding author: Fatima Zahra Hashas, MD, E-mail: hashas.fz@gmail.com

Sir,

Tinea capitis is a fungal infection of the scalp occurring most often in preadolescent children [1]. Its clinical presentation is typically single or multiple hair loss lesions, which may be accompanied by inflammation, scaling, and pustules. The most common trichoscopic features in tinea capitis are comma hair (disintegrated, cracked, and bent due to the presence of fungal hyphae in the hair shaft), corkscrew hair (a variant of comma hair and a marker of endothrix), black dots (broken, dystrophic hair), Morse code-like hair (intermittent, horizontal, white streaks, barcode-like hair), zig-zag hair (unusual bends caused by the invasion of hair shafts), bent hairs (bending of the hair shaft with homogeneous thickness and pigmentation), block hair (very short hair with transverse horizontal distal end), I-hair (blocky hairs with an accentuated dark distal end), and peripillary scaling [2]. Thorough history taking (including the history of contact with animals), physical examination, dermoscopy, and mycological examination are necessary for the diagnosis. Treatment requires an oral antifungal, such as itraconazole or terbinafine.

Id reactions are a type of secondary immunological reaction that results from a variety of stimuli, including infectious and inflammatory skin diseases. A dermatophytic reaction is defined as an id reaction caused by dermatophytosis [3]. Dermatophytid reactions may occur in numerous different clinical manifestations, from mild to severe reactions. They are characterized by symmetrical, widespread, eczematous lesions (scaly patches, plaques, and papules) beginning on the scalp, face, and neck, and sometimes spreading to the trunk and extremities [3]. Lesions may also

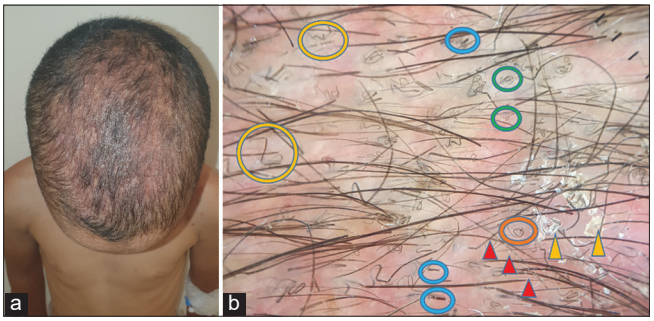

Figure 1: Clinical and dermoscopic features of tinea capitis: a) erythematous pseudoalopecic plaques with yellow crusts involving the frontal and parietal areas of the scalp; b) erythematous background, whitish peri-and inter-pillar scales (yellow arrows), broken hair (blue circle), corkscrew hair (green circle), zig-zag hair (yellow circle), Morse code-like hair (red arrows), hair in arrobas (orange circle).

appear on the palmar surfaces and interdigital spaces as papules, vesicles, bullae, or pustules [4]. Other rare dermatophytic manifestations reported in the literature are migrating thrombophlebitis, erysipelas-like dermatitis, erythema nodosum, erythema annulare centrifugum, and angioedema-like reaction [3,5]. Dermatophytosis may occur before or after the initiation of systemic antifungal therapy and must be differentiated from drug-induced allergic reactions. If this phenomenon is not recognized, the patient may be misdiagnosed, undergo unnecessary tests, and receive incorrect treatment. Antifungal therapy should be continued throughout the course of dermatophytosis to clear the infection and subsequently resolve the eruption. General or topical steroids may also be used in combination if the dermatophytic reaction is extremely widespread [6,7].

We herein set out the case of a ten-year-old boy who presented with a two-month history of multiple mildly

How to cite this article: Hashas FZ, Douhi Z, Mejjati K, Soughi M, Elloudi S, Baybay H, Mernissi F-Z. Dermatophytid in tinea capitis: A phenomenon to keep in mind. Our Dermatol Online. 2023;14(3):333-334.

Submission: 07.11.2022; **Acceptance:** 01.04.2023

DOI: 10.7241/ourd.20233.26

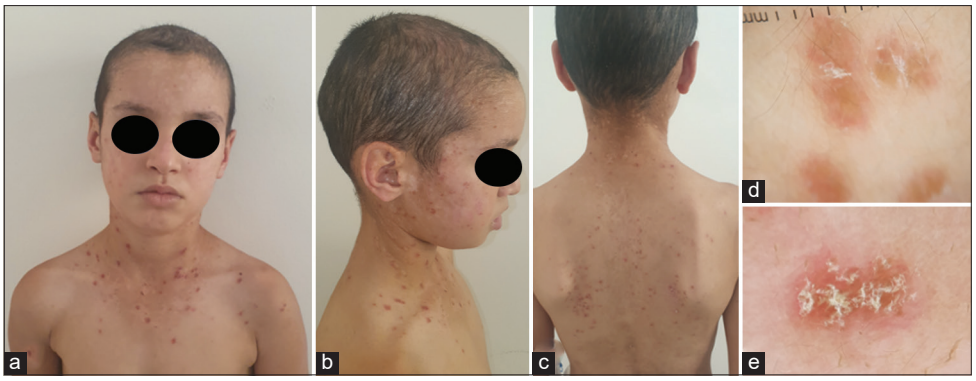

Figure 2: Clinical and dermoscopic features of dermatophytids: a-c) multiple papules, erythematous, mildly scaly on the face and neck, spreading to the trunk; d-e) structureless, erythematous, and orangish areas and white scales.

itchy, erythematous, and scaly lesions on the scalp, face, neck, and truck. His medical history was unremarkable and no other family member was suffering from a similar disease; however, a history of animal contact was present. Through a physical examination, we observed an extensive, erythematous, and slightly scaly plaque involving the frontal and parietal area of the scalp. The hairs present were easily pluckable and matted. The trichoscopic findings were erythema, whitish peri- and inter-pillar scales, broken hair, corkscrew hair, zig-zag hair, Morse code-like hair, hair in arrobas (Figs. 1a and 1b).

We also observed multiple papules, erythematous, mild scaly on the face and neck, spreading to the trunk. A dermoscopic evaluation revealed structureless, erythematous, orangish areas and white scales (Figs. 2a – 2e). The posterior cervical lymph nodes were enlarged and palpable. A potassium hydroxide (KOH) preparation made from scalp and hair scrapings showed fungal hyphae.

The diagnosis of tinea capitis associated with a dermatophytid reaction was established and the patient was treated successfully with oral and topical griseofulvin for eight weeks in association with symptomatic measures for the dermatophytid. There was complete clearance of lesions and hair regrowth.

Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

REFERENCES

1. Elewski BE. Tinea capitis: A current perspective. J Am Acad Dermatol. 2000;42:1-20.
2. ElghblawiE. Idiosyncratic findings in trichoscopy of tinea capitis: Comma, zig-zag hairs, corkscrew, and Morse code-like hair. Int J Trichol. 2016;8:180-3.
3. Waśkiel-Burnat A, Rakowska A, Sikora M, Ciechanowicz P, Olszewska M, Rudnicka L. Trichoscopy of tinea capitis: A systematic review. Dermatol Ther (Heidelb). 2020;10.1007.
4. Gianni C, Betti R, Crosti C. Psoriasiform id reaction in tinea corporis. Mycoses. 1996;39:307-8.
5. Zaraa I, Trojjet S, El Guellali N, El Euch D, Chelly I, Mokni M, et al. Childhood erythema nodosum associated with kerion celsi: A case report and review of literature. Pediatr Dermatol 2012;29: 479-82.
6. Topaloğlu Demir F, Karadag AS. Are dermatophytid reactions in patients with kerion celsi much more common than previously thought? A prospective study. Pediatr Dermatol. 2015;32 635-40.
7. Liu Z-H, Shen H, Xu A-E. Severe kerion with dermatophytid reaction presenting with diffuse erythema and pustules. Mycoses. 2011;54:e650-2.

Source of Support: Nil, **Conflict of Interest:** None declared.