

Case Report

Open Access

# Tenia Capitis Writes its Signature on Hairs

Ebtisam Elghblawi\*

Dermatology department, Academia title for health professional, Libya

## Abstract

A six-year-old, in good physical shape with medium length curly hair, Libyan white boy has presented with one single lesion which was itchy, painless with some scaly hair loss in the right parietal region on the scalp, since few weeks.

**Keywords:** Child; Trichoscope; Tinea capitis; Comma hairs; Corkscrew hairs

## Case Report

A six-year-old, in good physical shape with medium length curly hair, Libyan white boy has presented with one single lesion which was itchy, painless with some scaly hair loss in the right parietal region on the scalp, since few weeks. The mother gave a history of frequent contact with wild cats. On examination, a solitary non-erythematous oval patch of hair loss with scales (3 × 3 cm). A handheld DermLite II Pro dermatoscope was applied that revealed multiple wrecked hairs with a distinguishing comma-like shape 'comma hairs', and 'zigzag hairs' and some corkscrew hairs, and pig tail (Figure 1). The woods lamp examination yielded a distinctive yellowish green fluorescence. Based on the clinical history, finding, and trichoscopy reading (Figure 1), a diagnosis of Tinea capitis (TC) was made swiftly. The patient was prescribed oral griseofulvin in divided doses, and to be followed up in 3 weeks' time. The causative dermatophyte was not recognized as the lab affirmed a negative culture result which could be attributed to error of the sampling (Figure 2).

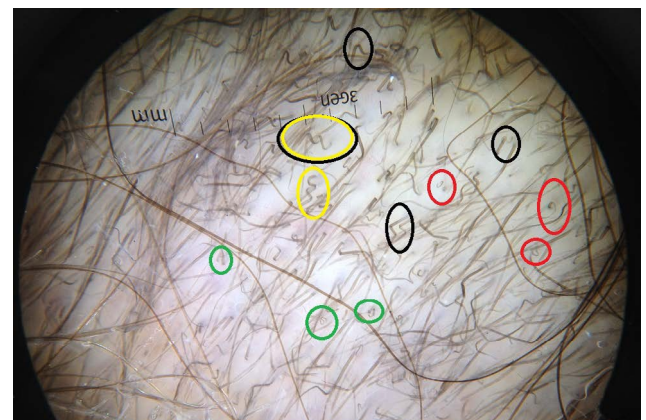
## Discussion

Hair diseases in children can have their own unique findings. TC is a scalp infection caused by fungi, and its a frequent fungal encountered in children 1. In the old days, potassium hydroxide (KOH) was and still utilized extensively a useful tool to confirm the diagnosis of TC. Also diagnosis can be confirmed by mycological study, and woods lamp examination [1,2]. However mycological culture would take up to six weeks to confirm diagnosis which would delay treatment and have epidemiological consequences. In Libya, the main speculative causative agents are *Microsporum canis* in most cases where street cats are commonly dwell around houses. Etiological diagnosis can made on the suggestive main clinical findings and confirmation depends on KOH examination and woods lamp and to find the main culprit fungus, a culture growth is mandatory [3-5]. Nonetheless, it is not persistently possible to conduct this test due to lack of availability in some places. Moreover, trichoscopy can identify both hair shaft and hair opening abnormalities without the need of hair sampling, as well as distinguish between different scalp and hair diseases. Also it can give easy and quick evaluation of hair with a follow up to determine progress and prognosis of the disease undertaken with photos recording. It also can aid also in some genetic hair shaft dystrophies namely, trichorrhexis nodosa, trichorrhexis invaginata, monilethrix, pili annulati and pili torti [3-5].

Pediatrics patchy scalp hair loss conditions such as TC and alopecia areata (AA), as it shows specific trichoscopies features, and that necessitate starting medications immediately rather than awaiting cultures which would take days to reveal. In fact the readings of a specific dermoscopic finding can escort to a straightforward diagnosis [3-7]. The condition should be stipulated in patients with a solitary or

numerous diminutive plaques of hair loss that are associated by hack hairs, scales, and itching [3,4]. Herein, I divulge the main trichoscopic findings of TC which I conduct on every suspected patient and I offer it for free services. The trichoscopic findings help with the making feasible of early diagnosis of TC and following it up. The differential diagnosis of hair loss in children ought to encompass principally TC, AA, trichotillomania (TTM) and congenital triangular alopecia. It has been suggested by some studies that perifollicular desquamation and dystrophic hairs are highly correlated with positive mycological examination [8].

Comma hairs have been proposed to the first marker for TC, followed by corkscrew hairs especially in African descent, however some studies argued that [8]. On the other hand, Slowinska et al. had affirmed that comma hair is a distinctive marker for TC followed by broken and black dots (dystrophic hair). Comma hair, corkscrew hair and pigtail hair were all observed only in patients of TC, thus forming specific features [2,5]. In my case, all features of TC have been visualized clearly which support the proposition and in line with it. Trichoscopy of the hair and scalp may therefore be a very useful diagnostic tool in this setting since it is quick, reliable, inexpensive, and noninvasive [1,2,6].



**Figure 1:** Green circle- comma like hairs. Black circle- zigzag hairs. Yellow circle-corkscrew. red circle- pig tail.

\*Corresponding author: Ebtisam Elghblawi, Dermatology department, Academia title for health professional, Libya, Tel: +218 9 2611 1310; E-mail: [ebtisamya@yahoo.com](mailto:ebtisamya@yahoo.com)

Received February 02, 2016; Accepted March 19, 2016; Published March 24, 2016

**Citation:** Elghblawi E (2016) Tinea Capitis Writes its Signature on Hairs. J Clin Case Rep 6: 743. doi:10.4172/2165-7920.1000743

**Copyright:** © 2016 Elghblawi E. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

## BACTERIOLOGY

Culture..... No growth after 48hrs incubation

**Figure 2:** Culture growth.

Trichoscopy offer a sensitivity tool for quick diagnosis and its utility in monitoring treatment progress<sup>6</sup>. In fact, Trichoscopy can facilitate the diagnosis, since it is a fast, reliable, noninvasive and inexpensive tool.

The range of dermoscopy has received considerable interest in the last decade<sup>11</sup>. Its use in hair and scalp disorders has been only used recently and appreciated [6,7]. The trichoscope helps build up our understanding and can play an important role in the improved diagnostic capability of TC and save our time in a busy clinic. And also some consider it as an essential stethoscope to a dermatologist<sup>6</sup>. Trichoscopy in this TC case had shown mainly the abundant occurrence of “comma hairs”, and “corkscrew hairs”, plus few corkscrew and pig tails. To come to an end, I have presented a distinctive case of TC with zigzag hairs and comma hairs, a possible trichoscopic symbol for TC. I deem highly this tool as an effective, quick, cheap, reliable and non-invasive that can serve in the diagnosis of TC and increase our understanding.

## References

- Hernández-Bel P, Malveyh J, Crocker A, Sánchez-Carazo JL, Febrer I, et al. (2012) Comma hairs: a new dermoscopic marker for tinea capitis. *Actas Dermosifiliogr* 103: 836-837.
- Slowinska M, Rudnicka L, Schwartz RA, Kowalska-Oledzka E, Rakowska A, et al. (2008) Comma hairs: a dermoscopic marker for tinea capitis: a rapid diagnostic method. *J Am Acad Dermatol* 59: S77-79.
- Haliasos EC, Kerner M, Jaimes-Lopez N, Rudnicka L, Zalaudek I, et al. (2013) Dermoscopy for the pediatric dermatologist part I: dermoscopy of pediatric infectious and inflammatory skin lesions and hair disorders. *Pediatr Dermatol* 30: 163-171.
- Nikam VV, Mehta HH (2014) A nonrandomized study of trichoscopy patterns using nonpolarized (contact) and polarized (noncontact) dermoscopy in hair and shaft disorders. *Int J Trichology* 6: 54-62.
- Rudnicka L, Rakowska A, Kerzeja M, Olszewska M (2013) Hair shafts in trichoscopy: clues for diagnosis of hair and scalp diseases. *Dermatol Clin* 31: 695-708, x.
- Romero J, Grimalt R (2015) Trichoscopy: Essentials for the dermatologist. *World J Dermatol* 4: 63-68.
- Inui S (2012) Trichoscopy: A New Frontier for the Diagnosis of Hair Diseases. *Expert Review of Dermatology* 7: 1-9.
- Brasileiro A, Cabete J, Galhardas C, Lencastre A, Serrao V (2015) Could trichoscopy help in the differential diagnosis of tinea capitis? A prospective clinical study.