**CASE REPORT**

**“i hair”: A prognostic marker in alopecia areata & trichotillomania**

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**Abstract**

Trichoscopy as an investigative tool is revolutionizing the diagnosis of hair disorders. The use of a trichoscope has unveiled a plethora of signs which not only helps in decoding the underlying tricoscopic condition but also acts as prognostic markers. Herein, we present a new trichoscopic sign, “i hair” in alopecia areata and trichotillomania. “i hair” are short hairs with an accentuated distal end. There may be a thin hypopigmented shaft just beneath the darker distal end, thus making them resemble the alphabet “i.”

**Key Words:** Alopecia areata, i hair, trichotillomania

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**Introduction**

Trichoscopy as an investigative tool is revolutionizing diagnosis of hair disorders. The use of a trichoscope has unveiled a plethora of signs which not only help decode the underlying trichoscopic condition but also act as prognostic markers. Herein, we present a new trichoscopic sign, “i hair” in alopecia areata and trichotillomania.

**Case Reports**

**Case 1**

A 16-year-old female child presented to us with patchy hair loss and decreased hair density for the past 5 months. On probing, she revealed that she indulges in pulling of hair. She was right handed and her hair loss on the scalp was limited to the range of her right hand [Figure 1a].

On trichoscopic examination, there were broken hair of varying lengths, coiled hair, flame hair, and mace sign,[1] confirming the trichoscopic diagnosis of trichotillomania. Mace sign is a new trichoscopic sign characteristically seen in trichotillomania. The distal end of the hair shaft is bulbous, causing the hair to resemble a “mace.” Furthermore, the hair shaft in “mace” sign is hyperpigmented throughout its length, and the upper half is rough in texture due to pulling and playing action with hair in trichotillomania [Figure 1b].[1]

The patient was counseled and discouraged from indulging in picking and pulling of hair. She was started on a combination of amitriptyline 25 mg and chlordiazepoxide 10 mg.

On following the patient after 6 weeks, the trichoscopic field showed the presence of a short hair with an accentuated distal end, resembling the letter “i.” Hence, a new trichoscopic sign “i hair” is being proposed in trichotillomania [Figure 1c].

**Case 2**

A 50-year-old male presented to us with a bald patch of the vertex of his scalp since few months. Clinically, a provisional diagnosis of alopecia areata was made [Figure 2a].

On performing trichoscopy of the bald patch, there were exclamation mark hair, coiledability hair, and yellow dots. The presence of these three characteristic trichoscopic signs confirmed the diagnosis of alopecia areata [Figure 2b].

The patient was treated with mometasone furoate 0.1% cream twice daily and was asked to follow-up after half month for clinical and trichoscopic assessment.

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1 month for trichoscopic examination. Trichoscopy showed the presence of multiple regrowing vellus hair indicating remission of the disease. Further, coudability hair and Pohl-Pinkus constriction were present. At the center of the trichoscopic field, short hair with an accentuated distal end were observed. The proximal end of the short broken hair was hypopigmented in comparison to the darker distal end, again resembling the letter “i.” Therefore, a new trichoscopic sign, “i hair” is also being proposed in alopecia areata [Figure 2c].

Discussion

“i hair” are short hair with an accentuated distal end and a thin hypopigmented shaft just beneath the darker distal end, resembling the alphabet “i.”[2] To understand the formation of “i hair” in these disorders, it is necessary to comprehend black dots on trichoscopy first. Black dots are broken hair shafts and are seen as black dots inside the follicular openings on trichoscopy in alopecia areata, trichotillomania, and tinea capitis.[3]

We propose that “i hair” are modified black dots. As the disease process eventually abates, the black dot grows into normal hair. This short hair has an accentuated distal end (denoting the black dot) and a paler, hypopigmented shaft below it, thus resembling the letter “i.” In trichotillomania, black dots are remnants of hair shafts arising from broken or tapering hair due to repetitive hair pulling.[4] As this psychological impulse is controlled, the hair shaft starts growing normally with the black dot being pushed distally giving rise to “i hair.”

In alopecia areata, the inflammatory infiltrate around the lower portion of the anagen hair follicle causes anagen arrest and subsequent destruction of hair follicle.[5] In alopecia areata, black dots signify residues of pigmented hair destroyed at the level of the scalp. They denote disease activity and are a negative prognostic factor.[6] The histopathology of black dots in alopecia areata reveals dysmorphic hair shafts with damage to the hair follicle at the infundibular level.[7] Hence, on treating alopecia areata with immunomodulatory agents, the disease will remit causing the anagen follicle to regrow normally. The black dot remains at the tip of the growing follicle forming the accentuated dark tip, whereas the rest of the regrowing anagen hair forms the paler, hypopigmented shaft, giving rise to “i hair.” “i hair” could be a positive prognostic marker in both trichotillomania and alopecia areata as its formation is attributed to the remission of the disease. So far, the presence of “i hair” has been mentioned in tinea capitis. However, we have found its presence in alopecia areata and trichotillomania. Further trichoscopic research is essential to assess the presence of this sign in all alopecias. Whether it can be labeled as a positive prognostic sign in all alopecias needs to be evaluated.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.
What is new?

*i hair* has not yet been reported in trichotillomania and alopecia areata. Its trichoscopic role as a prognostic marker in these conditions has not been visited before.

References

1. Malakar S, Mukherjee SS. ‘Mace sign’ – A definitive sign of trichotillomania? Our Dermatol Online 2017;8:1-2.
2. Rudnicka L, Szepietowski J, Slowinska M, Lukomska M, Maj M, Pinheiro A. Tinea capitis. In: Rudnicka L, Olszewska M, Rakowska A, editors. Atlas of Trichoscopy. London: Springer; 2012. p. 367.
3. Miteva M, Tosti A. Hair and scalp dermatoscopy. J Am Acad Dermatol 2012;67:1040-8.
4. Shim WH, Jwa SW, Song M, Kim HS, Ko HC, Kim BS, et al. Dermoscopic approach to a small round to oval hairless patch on the scalp. Ann Dermatol 2014;26:214-20.
5. Tobin DJ, Fenton DA, Kendall MD. Cell degeneration in alopecia areata. An ultrastructural study. Am J Dermatopathol 1991;13:248-56.
6. Inui S, Nakajima T, Nakagawa K, Itami S. Clinical significance of dermoscopy in alopecia areata: Analysis of 300 cases. Int J Dermatol 2008;47:688-93.
7. Rudnicka L, Olszewska M, Rakowska A, Kowalska-Oledzka E, Slowinska M. Trichoscopy: A new method for diagnosing hair loss. J Drugs Dermatol 2008;7:651-4.