Open Access Journal

Indian Dermoscopic Study of One Thirty Eight Cases of Alopecia Areata

Rahul Kumar Sharma^{*}, Divya Sharma, Rajendra Kumar Sharma



RK Skin and Endocrine Center Panchsheel C Block Ajmer Rajasthan

<u>Abstract</u>

Alopecia areata (AA) is a type of non-scarring alopecia first described by Cornelius Celsus, characterized by hair loss without any clinical inflammatory signs and affecting both males and females equally. The activity of AA is by the presence of black dots, broken hair, and tapering, furthermore black dots and yellow dots are equated to severity of AA. Aim - To study dermoscopic features of untreated cases of alopecia areata. Study subjects-All the patients who attended the dermatology clinic from March 2015 to March 2017 with the clinical diagnosis of alopecia areata and who fulfilled the inclusion and exclusion criteria. Study period - Two year (from March 2015 to March 2017). Methodology - All the patients who attended the dermatology clinic from March 2015 to March 2017 with the diagnosis of alopecia areata and who fulfilled the inclusion and exclusion criteria were recruited for the study. Trichoscopy was performed with DL4 dermatoscope. The images were further magnified with smart phone. <u>Results</u> - We got various dermoscopic signs in different combinations in our study. Yellow dots were seen in 10 cases, White dots in cotton wool pattern were seen in 3 cases, Black dots were seen in 25 cases, Dermoscopic coudability sign was demonstrated in 38 cases, Pigtail hairs were present in 2 cases, five cases showed short vellus hairs, Short broken hairs were found in 18 cases, Exclamation mark hairs were very common and were detected in 131 patients out of 138. Discussion - Single feature is not leading to the diagnosis so we should use combination of features which will help in difficult cases like AA incognito. Dermatoscope is an indispensible valuable tool in trichology practice which helps in prognosticating and making early diagnosis of AA. It also helps to differentiate it from trichotillomania and other causes of alopecia. In our study the incidence of AA was almost similar in both sexes. Our study revealed that exclamation mark hair is very common and sensitive dermoscopic marker of AA.

Keywords - Alopecia areata, Dermoscopy of dark skin, Dermoscopy of alopecia areara

Introduction

Alopecia areata (AA) is a type of non-scarring alopecia first described by Cornelius Celsus, characterized by patchy hair loss without any clinical inflammatory signs and affecting both males and females equally.^[1,2]

Dermatoscopy is a straightforward and valuable method to observe signs of alopecia areata. Dry dermatoscopy is called as trichoscopy.^[3,4] The distinguishing dermatoscopic signs of alopecia areata are yellow dots, black dots, broken hairs, tapering hair (exclamation marks), and short vellus hairs.^[3,4,5] Inui et al. pointed that coudability hairs on trichoscopy and made a conclusion that they are useful markers for disease activity in AA .^[4] The activity of AA is by the presence of black dots, broken hair, and tapering , furthermore black dots and yellow dots are equated to the severity of AA.^[3-8] Yellow dots are not specific as can be seen in AGA also.^[3,4,5] The dictum is that single feature is not leading to the diagnosis so we should use combination of different signs and features which will help in difficult cases like AA incognito.^[3,4] **Aim** - To study dermoscopic features of untreated cases of Alopecia areata.

Study subjects - All the patients who attended the dermatology clinic from March 2015 to March 2017 with the clinical diagnosis of alopecia areata and who fulfilled the inclusion and exclusion criteria.

Inclusion criteria

All biopsy proven cases of alopecia areata

Exclusion criteria

- 1) Inability to give consent
- 2) Where biopsy was inconclusive
- 3) Patients undergoing treatment for AA

Study period - Two year (from March 2015 to March 2017).

Methodology

All the patients who attended the dermatology clinic from March 2015 to March 2017 with the diagnosis of alopecia areata and who fulfilled the inclusion and exclusion criteria were recruited for the study. Trichoscopy was performed with DL4 dermatoscope. The images were further magnified with smart phone.



Figure 1: Dermoscopic findings in alopecia areata

Results

We got various dermoscopic signs in different combinations in our study. Yellow dots were seen in 10 cases, White dots in cotton wool pattern were seen in 3 cases, Black dots were seen in 25 cases, Dermoscopic coudability sign was demonstrated in 38 cases, Pigtail hairs were present in 2 cases, 5 cases showed short vellus hairs, Short broken hairs were found in 18 cases, Exclamation mark hairs (tapering hairs) were very common and were detected in 131 patients out of 138.



Figure 2: Sex Incidence of Alopecia areata



Figure 3: Distribution of various dermoscopic signs among 138 cases

Discussion

Dermatoscope is an indispensible valuable tool in trichology practice which helps in prognosticating and making early diagnosis of AA. It also helps to differentiate it from trichotillomania and other causes of alopecia. In our study the incidence of AA was almost similar in both sexes. Our study showed that exclamation mark hair is very common dermoscopic marker of AA. Dermatoscopic diagnosis of AA is made by combination of various signs and should not be dependent on the presence of single marker. Other recent dermoscopic studies of alopecia areata supported our findings.^[3-8]

References

- Wasserman D, Guzman-Sanchez DA, Scott K, McMichael A. Alopecia areata. Int J Dermatol.2007; 46:121–31.
- [2] Papadopoulos AJ, Schwartz RA, Janniger CK. Alopecia areata. Pathogenesis, diagnosis, and therapy.Am J Clin Dermatol. 2000; 1:101–5.
- [3] Lacarrubba F, Dall'Oglio F, Rita Nasca M, Micali G. Videodermatoscopy enhances diagnostic capability in some forms of hair loss. Am J Clin Dermatol. 2004; 5:205–8.
- [4] Inui S, Nakajima T, Itami S. Significance of dermoscopy in acute diffuse and total alopecia of the female scalp: Review of twenty cases. Dermatology. 2008; 217:333–6.
- [5] Tosti A, Whiting D, Iorizzo M, Pazzaglia M, Misciali C, Vincenzi C, et al. The role of scalp dermoscopy in the diagnosis of alopecia areata incognita. J Am Acad Dermatol. 2008; 59:64–7.

- [6] Ross EK, Vincenzi C, Tosti A. Videodermoscopy in the evaluation of hair and scalp disorders. J Am Acad Dermatol. 2006; 55:799–806.
- [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
- [8] Mane M, Nath AK, Thappa DM. UTILITY OF DERMOSCOPY IN ALOPECIA AREATA. Indian Journal of Dermatology. 2011; 56(4):407-411. doi:10.4103/0019-5154.84768.