AJMAS
https://alqalam.utripoli.edu.ly/science/ eISSN 2707-7179

Research article

Trichoscopy as a Simple Diagnostic Tool for Trichotillomania; An Observational Study

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ARTICLE INFO

DOI: 10.5281/zenodo.3938857

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Received*: 11-6-2020*
Accepted*: 23-6-2020*

Keywords*: Trichotillomania, Dermoscope, Trichoscopy, Alopecia.*

ABSTRACT

Background and objective*: Trichotillomania is a chronic illness characterized by hair bearing areas with patchy alopecia due to compulsive urge to pull the hair. Scalp is the most frequently affected area for pulling hair. Typically, patients may have only small areas of baldness, in severe cases, tonsure appearance of baldness is noticeable. This study aimed to observe trichoscopic patterns and their significance in the diagnosis of trichotillomania.* ***Methods****: An observational study conducted between march 2018 and march 2020 on 19 alopecic patients attending outpatient department in Tripoli central Hospital. Dermoscope was used to save the images of the affected alopecic patients.* ***Results****: In this current study, most of the patients belonged to adolescent, and child age group and most of them were females Most common symptom was black dots over the scalp (94.7%) followed by V shape (78.9%) and broken hair (73.6%). The lowest one was for coiled hair (15.7%).* ***Conclusion****: Trichoscopy techniques can be utilized in this condition, and help forming and confirming the diagnosis on the basis of its characteristics finding. Hence, trichoscopic assessment should be conducted in every case of alopecia.*

Cite this article: *Musbah F and Elhouni N. Trichoscopy as a Simple Diagnostic Tool for Trichotillomania; An Observational Study. Alq J Med App Sci. 2020;3(2):35-38.*

INTRODUCTION

Trichotillomania is considered as a chronic mental illness of impulse control, characterized by repetitive, compulsive, and self-induced hair pulling resulting in alopecia. It can happen at any age but is detected more often in adolescents, with a robust prevalence in females. It accurately means morbid craving to pull out hair [1]. The term "Trichotillomania" was firstly used in 1889 by Hallopeau and is obtained from the Latin word; thrix-hair, tillein-pull out and mania-madness [2]. In some patients, it appears with only small areas of baldness. While in more advanced cases, tonsure pattern of baldness, known as "Friar Tuck sign" is observed [3].

Trichotillomania can be detected or diagnosed broadly by history and clinical examination. However, in some cases, it is difficult to distinguish it from other reasons of noncicatricial alopecia. Trichoscopy, dermoscopy hair and scalp, is a valued instrument in diagnosing hair loss and has virtually become inevitable in trichology practice. It is a noninvasive method for disparity diagnosis of several hair and scalp diseases [4]. Structures which may be visualized by trichoscopy include hair shafts of

trichoscopy as an assistance in the diagnosis of Trichotillomania [5].

Trichoscopy delivers fast detection of hair and scalp illnesses with diagnostic accurateness. The basic value of trichoscopy is illumination and transillumination of skin or a lesion with diverse light source and reading it with a high magnification lens [6]. Trichoscopic assessment of normal and unhealthy scalp is built on detecting follicular patterns or dots, Interfollicular pattern which involves of visualization of pigments and vascular shape, and Hair signs [7,8].

Previous studies had evaluated trichoscopic patterns in trichotillomania and concluded that these patterns are specific to trichotillomania, which can assist in early diagnosis of this chronic condition. Therefore, the current study aimed to observe trichoscopic patterns and evaluate their importance in the diagnosis of trichotillomania.

METHODS

Patients and setting

This study was conducted among 19 patients attending outpatient department in Tripoli central Hospital between march 2018 and march 2020. It was an observational study. Patients presented with clinical features of alopecia affecting scalp and eye brows. Written informed consent was obtained from patients in the study. The ethical clearance for the study was obtained by the Ethical Committee of department of dermatology of the university of Tripoli, Libya.

Demographic data such as age and gender and clinical variables in terms of site of lesions and disease duration were collected and documented in specific form. Data were gathered and analyzed using SPSS version 22. Descriptive statistics were used in terms of frequencies and types of trichoscopic patterns.

Trichoscopic inspection

A dermoscope (×10 magnifications) with both polarized and nonpolarized lights was used in this explorative study. A 5 mega pixels digital camera was attached to save the images. Therafter, the skin lesions and then lesions were detected through the eyepiece of dermoscopy. While polarized dermoscopy was used, ultrasound gel was applied for clearness of images and to diminish distortions linked with light.

RESULTS

As shown in Table 1, there were 19 patients [7 males (36.8%) and 12 females (63.2%)]. Mean age of the patients was 15.3 years (Minimum age 3 years and maximum age 39 years). Mean duration of disease was 1.7 years (minimum 2 months and maximum 12 years).

Most common symptom was black dots over the scalp (94.7%) followed by V shape (78.9%) and broken hair (73.6%). The lowest one was for coiled hair (15.7%) [Figure 1].

Table 1. *Demographic characteristics of patients with trichotillomania*

Item	N (%) Total = 19
Age	
1 – 10 years	8 (42.1%)
11 – 20 years	6 (31.6%)
20 – 30 years	3 (15.8%)
> 30 years	2 (10.5%)
Gender	
Male	7 (36.8%)
Female	12 (63.2%)
Duration of trichotillomania	
< 1 year	10 (52.6%)
1 – 5 years	8 (42.1%)
> 5 years	1 (5.3%)

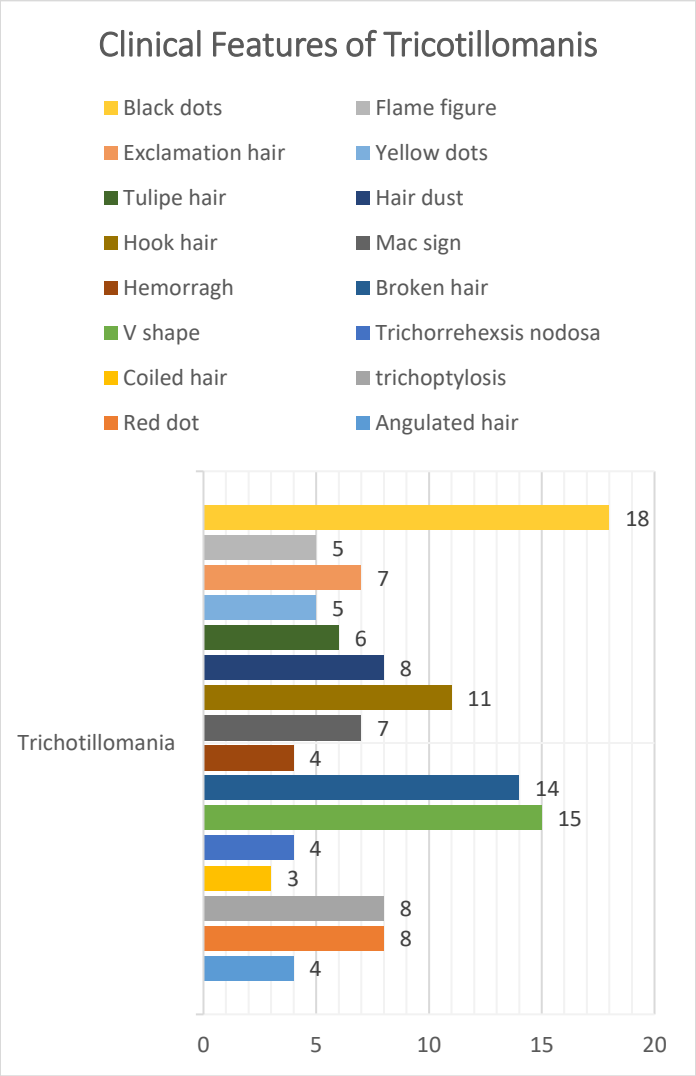

Figure 1: *Clinical features of Trichotillomania*

Figure 2. *Female child presented with multiple patches of hair loss*

Figure 3. *Tricoscopy findings of Trichotillomania patient*

DISCUSSION

Trichotillomania is a chronic disorder characterized by impulse control, repetitive hair pulling with the consequence of alopecia [2]. It is typically a habit that disappear naturally or with slight treatment. Adolescents and adults, mainly in females and sign of some aspect of psychological or behavioral anxiety is often apparent [3]. The common site is the easily touched fronto-parietal area of the scalp followed by eyelashes, eyebrows, pubic hair, body hair and facial hair [9]. The consequences are patchy damage of hair, often in a bizarre or angular form, in which the hairs are twisted and broken at many distances from the clinically normal scalp [1]. In this current study, most of the patients belonged to adolescent, and child age group and most of them were females (63.2%). Nearly, all of them presented with black dots over the scalp, few of the patients came with coiled hair (15.7%).

Trichoscopy is a new, simple, and noninvasive diagnostic technique which can be used as a handy bed side tool for identifying common hair and scalp disorder. Several common trichoscopy structures of trichotillomania were identified in our study such as; black dots, V shape, and broken hair, that also reported in previous studies as diagnostic of TTM [10,11]. This could be duet to irregular and repetitive pulling of hairs leading to damage to the cuticle. Black dots are supposed to be leftovers of hair shafts ascending from tapering hairs, broken hairs, and bent hairs. Earlier study done by Shim et al. revealed that

black dots were detected in patients with trichotillomania and discoid lupus erythematosus. Hence, black dots appear to be a nonspecific trichoscopic pattern in trichotillomania [12]. Another study showed that black dots tend to be variable in diameter and round, oval irregular in shape in trichotillomania [13].

Irregular coiled hairs and angulated hairs are also seen in our findings, which is in line with earlier report conducted by Abraham et al.2010 in trichotillomania patients [13]. In his study, findings were confirmed in 80% of tested cases. Coiled hair results from hair shaft fracture and coiling of the remaining proximal part which is fixed to the scalp.

CONCLUSION

Trichotillomania is often chronic and hard to treat. Patients may effort to mask the complaint due to its social aspects. Thus, early diagnosis and treatment is essential. Trichoscopy techniques can be utilized in this condition, and help forming and confirming the diagnosis on the basis of its characteristics finding. It is quite easy to obtain the expertise and knowledge required for trichoscopy as it can be learnt by all those with a keen eye to detect. Therefore, trichoscopic assessment should be conducted in every case of alopecia. Further studies on trichoscopic patterns comparing with duration of disease and histopathology of trichotillomania are recommended.

Limitations

This study conducted in a single city with a sample size of 19 case cannot be generalized to the whole population.

Funding

No funding sources

Conflict of interest

None declared

REFERENCES

[1] Messenger AG. Disorders of Hair. In: Burns T, Breathnach S, Cox N, Griffiths C, editors. Rook's Textbook of Dermatology. 8th ed. Malden:Blackwell; 2010. p. 66.54.

[2] Sperling LC. Alopecias. In: Bolognia JL, Jorizzo JL, Rapini RP, editors. Dermatology. 2nd ed. Spain: Mosby, Elsevier Limited; 2008. p. 987-1005.

[3] Dimino-Emme L, Camisa C. Trichotillomania associated with the "Friar Tuck sign" and nail-biting. Cutis 1991;47:107-10.

[4] Bouwer C, Stein DJ. Trichobezoars in trichotillomania: Case report and literature overview. Psychosom Med 1998;60:658-60.

[5] Trüeb RM, Cavegn B. Trichotillomania in connection with alopecia areata. Cutis 1996;58:67-70.

[6] Ross EK, Vincenzi C, Tosti A. Videodermoscopy in the evaluation of hair and scalp disorders. J of the American Academy of Dermatol. 2006;55(5):799-806.

[7] Rudnika L, Olzewska M, Slowinska M. Trichoscopy update. J Dermatol Case Rep. 2011;4:82-8.

[8] Rudnicka L, Olszewska M, Rakowska A. Atlas of Trichoscopy Dermoscopy in Hair and Scalp Disease. Springer. 2012.

[9] Ankad BS, Naidu MV, Beergouder SL, Sujana L. Trichoscopy in trichotillomania: a useful diagnostic tool. Int J Trichology. 2014;6(4):160-163. doi:10.4103/0974-7753.142856.

[10] Rudnicka L, Olszewska M, Rakowska A, Slowinska M. Trichoscopy update 2011. J Dermatol Case Rep 2011;5:82-8.

[11] Jain N, Doshi B, Khopkar U. Trichoscopy in alopecias: Diagnosis simplified. Int J Trichology 2013;5:170-8.

[12] 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.

[13] Rakowska A, Slowinska M, Olszewska M, Rudnicka L. New trichoscopy findings in trichotillomania: Flame hairs, V-sign, hook hairs, hair powder, tulip hairs. Acta Derm Venereol 2014;94:303-6.

[14] Abraham LS, Torres FN, Azulay-Abulafia L. Dermoscopic clues to distinguish trichotillomania from patchy alopecia areata. An Bras Dermatol 2010;85:723-6.