

Original Research

Assessment of 86 cases of Alopecia areata

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ABSTRACT:

Background: The present study was conducted to assess cases of Alopecia areata (AA).

Materials & Methods: The present study was conducted 86 patients of Alopecia areata of both genders. Information such as name, age, gender etc. was recorded. The site was selected and lesion was observed through the dermoscope. Grading was done to evaluate extent of scalp hair loss, body hair loss and nail involvement.

Results: Out of 86 patients, males were 50 and females were 36. The pattern of AA was patchy seen in 52, ophiasis pattern in 10 and sub totalis in 24 patients. The difference was significant ($P < 0.05$). Nail findings found to have long ridges were seen in 32, pitting in 20, Trachyonychia in 8, Beau's lines in 7, Onychodystrophy in 6, Onychorrhexis in 10 and other pattern in 3 patients. The difference was significant ($P < 0.05$).

Conclusion: Alopecia areata is a common disease affecting hairs and nails. Males were commonly affected as compared to females.

Key words: Alopecia areata, hair, Sub totalis.

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INTRODUCTION

Alopecia areata is a form of autoimmune hair loss with a lifetime prevalence of approximately 2%.¹ A personal or family history of concomitant autoimmune disorders, such as vitiligo or thyroid disease, might be noted in a small subset of patients. Alopecia areata (AA) is a common, clinically heterogenous, immune-mediated, non-scarring hair loss disorder.² At any given time approximately 0.2% of world population suffers from Alopecia Areata (AA) with an estimated lifetime risk of 1.7%.³

The exact incidence and prevalence of the disease is not available. It accounts for 2-3% of the new dermatology cases in UK and USA, 3.8% in China, and 0.7% in India.⁴ The etiology of AA is considered to be chronic, organ specific autoimmune disease, probably mediated by auto-reactive CD8+ T cells, which affects the hair follicles and sometimes the nails. Hair follicles from patients with AA exhibit both abnormal hair cycling

and inflammation. Normally, a hair follicle goes through 3 phases during its growth cycle: anagen, catagen, and telogen. The hair shaft elongates during the anagen phase. It can remain in this phase for a period of months to years.² Next the follicle enters a 2- to 4-week period known as the catagen phase, during which it prepares to enter the "resting phase" known as the telogen phase. This final part of the follicular growth cycle takes approximately 3 months to complete, after which the hair shaft is lost as a "club hair" and the hair follicle begins the cycle again.⁵ The present study was conducted to assess the cases of Alopecia areata (AA).

MATERIALS & METHODS

The present study was conducted 86 patients of Alopecia areata of both genders in the department of Dermatology. The study was approved from institutional ethical committee. All patients were

informed regarding the study and written consent was obtained. Information such as name, age, gender etc. was recorded. The site was selected and lesion was observed through the dermoscope. Grading was done to evaluate

extent of scalp hair loss, body hair loss and nail involvement. Results were tabulated and subjected to statistical analysis using chi-square test. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 86		
Gender	Males	Females
Number	50	36

Table I shows that out of 86 patients, males were 50 and females were 36.

Table II Pattern of AA lesion in patients

Pattern	Number	P value
Patchy	52	0.01
Ophiasis	10	
Sub totalis	24	

Table II, graph I shows that pattern of AA was patchy seen in 52, ophiasis pattern in 10 and sub totalis in 24 patients. The difference was significant (P< 0.05).

Graph I Pattern of AA lesion in patients

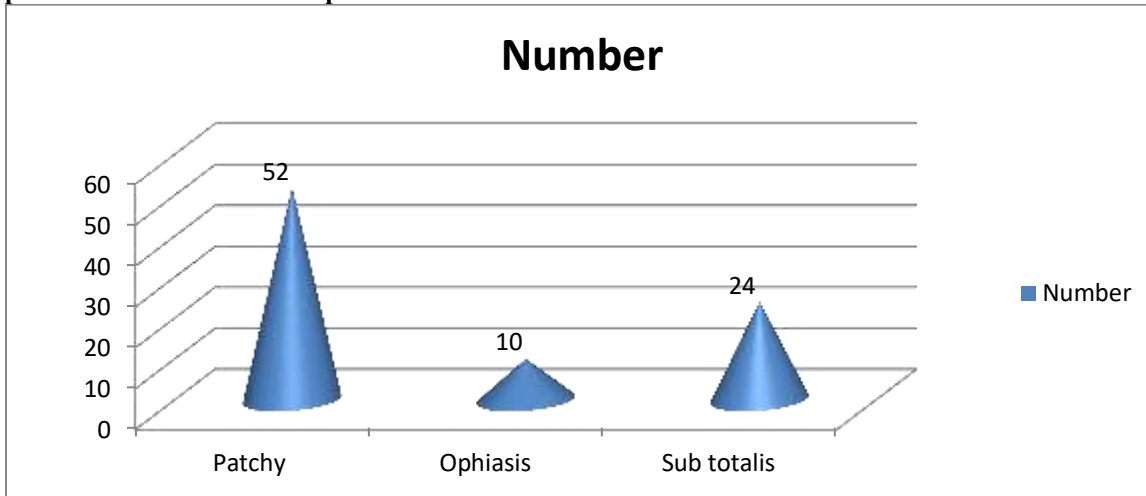
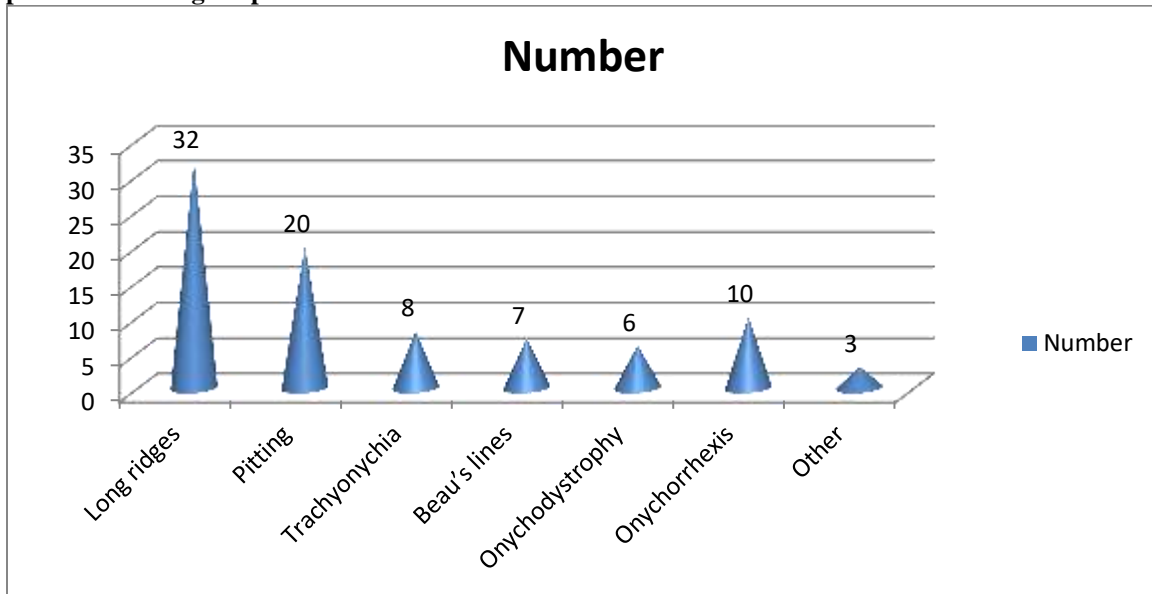


Table III Assessment of nail findings in patients

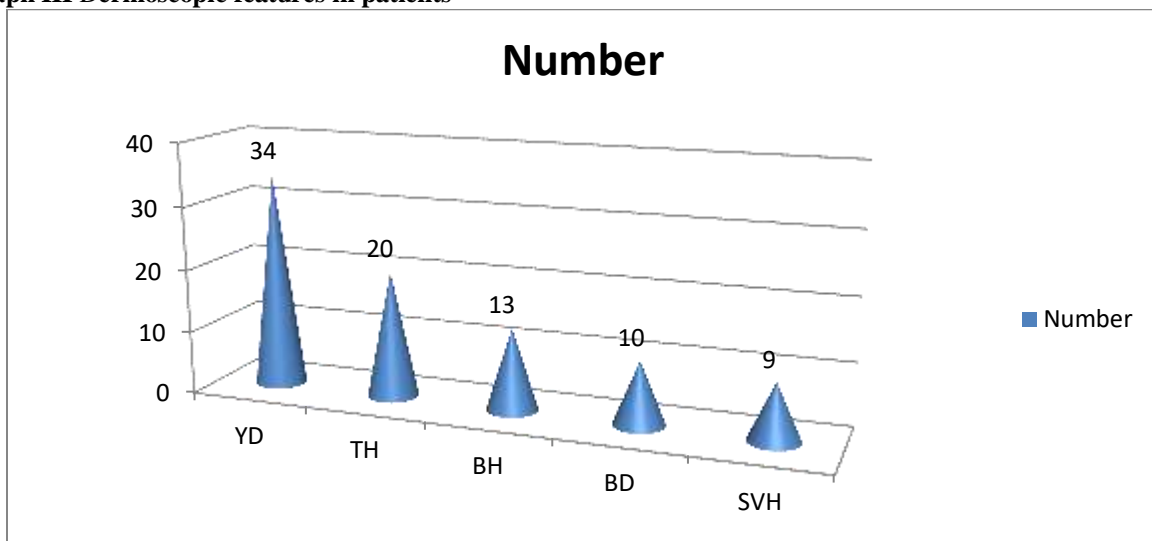
Nail findings	Number	P value
Long ridges	32	0.01
Pitting	20	
Trachyonychia	8	
Beau's lines	7	
Onychodystrophy	6	
Onychorrhexis	10	
Other	3	

Table III, graph II shows that nail findings found to have long ridges were seen in 32, pitting in 20, Trachyonychia in 8, Beau's lines in 7, Onychodystrophy in 6, Onychorrhexis in 10 and other pattern in 3 patients. The difference was significant (P< 0.05).

Graph II Nail findings in patients



Graph III Dermoscopic features in patients



Graph III shows that normal dermoscopic features was YD seen in 78, TH in 45, BH in 13, BD in 15 and SVH in 11 patients.

DISCUSSION

In AA, inflammation causes a large proportion of hair follicles to shift from the anagen phase to the telogen phase. In the acute stages of AA, most hair follicles are still in the anagen phase. If one were to perform a scalp biopsy at this stage, the histologic examination would reveal an excessive amount of lymphocytes in and around the hair follicle.⁶ While the normal ratio of anagen to telogen hairs in the scalp is usually 80:20, patients with AA exhibit a 60:40 or even 50:50 anagen to telogen ratio, and in some cases the number of telogen hairs might dominate. The disease manifests as

patchy alopecia, reticulate alopecia, ophiasis, ophiasis inversus (sisaphio), alopecia totalis or alopecia universalis.⁷ A new subtype of AA is acute diffuse and total alopecia of the female scalp characterized by rapid progression of diffuse alopecia of the female scalp, marked female predominance and a favorable prognosis.⁸ The present study was conducted to assess the cases of Alopecia areata (AA).

In present study, out of 86 patients, males were 50 and females were 36. The pattern of AA was patchy seen in 52, ophiasis pattern in 10 and sub totalis in 24 patients. Lewis et al⁹ conducted a study on 162 patients of both

genders. Out of 162 patients, males were 92 and females were 70. Pattern was patchy seen in 142, Sub totalis in 14 and ophiasis pattern in 6 patients. The difference was significant ($P < 0.05$). Long ridges were seen in 96, pitting in 32, Beau's lines in 20, Onychorrhexis in 6, Onychodystrophy in 6, Trachyonychia in 2 and other pattern in 2 patients. The difference was significant ($P < 0.05$). YD was seen in 78, TH in 45, BH in 13, BD in 15 and SVH in 11 patients.

We found that nail findings found to have long ridges were seen in 32, pitting in 20, Trachyonychia in 8, Beau's lines in 7, Onychodystrophy in 6, Onychorrhexis in 10 and other pattern in 3 patients. YD was seen in 78, TH in 45, BH in 13, BD in 15 and SVH in 11 patients. Al-Refu et al¹⁰ found that Tinea capitis was the most common, and the trichoscopic features were comma shaped hairs, corkscrew hairs, short broken hairs, and interrupted hairs. While in alopecia areata patients, the most specific features were yellow dots and black dots, microexclamation mark, hair shafts with variable thickness, and vellus hairs, with uncommon features included: monilethrix, coiled, zigzag, and tulip hairs. Trichoscopy of trichotillomania showed hair with fraying of ends, breakage at different lengths, short and coiled hairs, and amorphous hair residues. The trichoscopic features of traction alopecia were similar to those of trichotillomania. However, flame hairs and coiled hairs were less common.

The known trichoscopic features for this disease are decreased hair density, hairs broken at different lengths, irregularly coiled hairs, and sparse yellow dots that may or may not contain black dots.¹¹ Trichoscopy of these cases showed fraying of ends, breakage at different lengths, short hairs, trichoptilosis, irregular coiled hairs, amorphous hair residues, and black dots. Some of the cases showed scratching and hemorrhage. These features were common in all cases which are examined and nearly present in each case examined. Yellow dots were absent in all cases, and this was similar to the previous studies. Microexclamation mark was a rare feature and was absent in all cases of this study. This

may be an important diagnostic marker to differentiate it from cases of alopecia areata.¹²

CONCLUSION

Alopecia areata is a common disease affecting hairs and nails. Males were commonly affected as compared to females.

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