

Morphological finding in alopecia areata: A cross sectional study

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Abstract

Background: Alopecia areata (AA) is a common chronic inflammatory disorder characterized by non-scarring hair loss on the scalp or any other hair bearing area of body. The objective of our study was to assess morphological pattern in alopecia areata.

Method: Prospective cross-sectional study was conducted in our hospital. 110 patients with AA were included in the study.

Results: In our study most common finding was patchy (88.18%) followed by ophiasis (3.63%), linear (3.63%), alopecia universalis (1.82%), reticular (0.91%) and alopecia subtoalis & alopecia totalis scalp (0.91%).

Conclusion: Patchy alopecia was the most common presentation of alopecia areata (AA).

Keywords: Alopecia areata, Morphology, Patchy

Introduction

Alopecia areata is a common chronic inflammatory condition characterized by non-scarring hair loss on the scalp or any other hair bearing area of body. It accounts

for 25% of all alopecia cases presenting to dermatologists¹. The overall incidence is about 0.7% cases in India². The lifetime risk of alopecia areata in the general population is approximately 2%³.

Alopecia areata incidence appears to increase almost linearly with the age, but the mean age of onset appears between 25-36 years⁴. Early onset alopecia areata between 5 and 10 years old predominantly presents as more severe subtypes³.

Due to lack of study in our region we conduct the study to evaluate the morphological patterns of alopecia areata.

Material And Method

The prospective cross-sectional study was conducted in the department of Dermatology, Venereology and Leprosy, Sardar Patel Medical College, Bikaner, Rajasthan. The approval was taken from the institutional ethics and thesis committee. A total 110 patients were enrolled as study population irrespective of

age and sex in the outpatient department of Dermatology, Venereology and Leprosy at SP Medical College, Bikaner from September 2018 to September 2019.

All the selected alopecia areata patient's data were recorded in proforma as epidemiological data (name, age, sex & occupation), relevant history, clinical examination including general, systemic and cutaneous examination, laboratory investigation, treatment history and characteristic lesion were also like; Number of patches, distribution, pattern, morphology, and characteristic dermatoscopic finding were noted.

Inclusion criteria

- 1- All clinically diagnosed case of alopecia areata
- 2- Who had given informed consent
- 3- Untreated patient.

Exclusion Criteria

- 1- Patient who had already treated and refused to examine.

Data Analysis

To collect required information from eligible patients a pre-structured pre-tested proforma was used. For data analysis Microsoft excel and statistical software Epi-info was used and data were analyzed with the help of frequencies, figures, proportions, measures of central tendency.

Observations

Table 1: Socio-demographic profile

| | |
|-------------------|-----------------|
| Mean age | 23.76±12.50 Yrs |
| Male : female | 1.89 : 1 |
| Urban : Rural | 1.04 :1 |
| Hindu : Muslim | 14.71 :1 |
| Duration of onset | 23.51±12.70 Yrs |

Mean age of patient was 23.76±12.50 Yrs. Male female ration was 1.89:1.

Table 2: Morphology distribution

| Morphology | No of patients (n=110) | Percentage |
|------------------------|------------------------|------------|
| Patchy | 97 | 88.18 |
| Reticular | 1 | 0.91 |
| Ophiasis | 4 | 3.63 |
| Linear | 4 | 3.63 |
| Alopecia universal | 2 | 1.82 |
| Alopecia subtotalis | 1 | 0.91 |
| Alopecia totalis scalp | 1 | 0.91 |
| Total | 110 | 100.00 |

In our study most common finding was patchy (88.18%) followed by ophiasis (3.63%), linear (3.63%), alopecia universalis (1.82%), reticular (0.91%) and alopecia subtotalis & alopecia totalis scalp (0.91%).

Discussion

In our study most common pattern of disease was patchy 97 (88.18%) followed by ophiasis 4 (3.63%), linear 4 (3.63%), alopecia universalis 2 (1.82%), 1 reticular (0.91%) and 1 alopecia subtotalis and 1 alopecia totalis scalp (0.91%). The study by Inui *et al.*⁴ and Mane *et al.*⁵, also noted patchy alopecia as the most common pattern involving 46.7% and 87.7% of patients respectively.

Mahmoudi H et al observed⁶ that the most common disease pattern was universalis (48.4%), followed by multiple patches in 23%, totalis in 12.7%, localized patches in 11.1% and ophiasis was observed in 4.8%. In study by Bapu *et al.* study, localized patches (65.5%) were most common than multiple patches (22.41%) and ophiasis pattern was recorded in 4.31%⁷. They also observed that 88.8% patients had progressive disease and 11.2% fell in non progressive group. In the study by Inui *et al.* study⁴ multiple patches were seen in

38.3%, diffuse pattern in 19%, and totalis in 17% of the patients. In this study patients presented with higher frequency of universalis and totalis subtypes as compared to previous studies because patients were selected from the diphenylcyclopropanone (DPCP) clinic.

Conclusion

Patchy alopecia was the most common presentation of alopecia areata (AA).

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