

Original Research Article

A study of clinical profile of Alopecia areata in a tertiary care hospital in Western Odisha

Anil Mishra^{1*}, R.L. Sharma², Minati Mishra³

¹Assistant Professor, Department of Dermatology, SMIMS, Sikkim Manipal University, Gangtok, Sikkim, India

²Associate Professor & Head, Department of Dermatology, SMIMS, Sikkim Manipal University, Gangtok, Sikkim, India

³Professor & HOD, Department of Skin & VD, Hi-tech Medical College, Bhubaneswar, India

*Corresponding author email: anilmishra00@gmail.com

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Abstract

This study was an attempt on the part of the author to find out the incidence and various clinico-epidemiological characteristics of AA in VSS medical College, Burla, Western Odisha. The study was carried on 70 Patients of AA attending the OPD, out of which 88% of the cases were of AA classical type (Patchy). The age group of 21-30 years showed maximum prevalence of AA (43%). 57% of the patients showed lesions on scalp, out of which 62.5% showed multiple lesions with a male dominance of 70%. Most of the patients had oval lesions (54%). Nail involvement was seen in 10% of cases with the pitting of nails being the commonest pattern. Atopy was the most common condition associated with AA. 10 % of the patients reported with family history of AA.

Key words

Alopecia areata, Alopecia totalis, Alopecia universalis, Nail Involvement, Atopy, Western Odisha.

Introduction

Alopecia areata (AA) is a common cause of non-cicatricial alopecia that occurs as a patchy, confluent or diffuse pattern, characterized by hair loss without any clinical inflammatory signs [1].

It is one of the most common form of hair loss seen by dermatologists and accounts for 25% of all the alopecia cases [2]. It may occur as a single, self-limiting episode or may recur at varying intervals over many years. Clinically it

can present with many patterns such as AA monolocularis, AA mutilocularis, Alopecia universalis (AU), Alopecia totalis (AT) and Ophiasis.

It was first described by Cornelius Celsus, and the term AA was coined by Sauvages in 1760 [3]. Onset may be at any age and there is no known race and sex preponderance [4]. About 1.7% of the population shall experience an episode of AA during their life time [5]. It accounts for 0.7% of the new dermatology cases in India [6].

This study was a novice attempt on the part of the author to find out the incidence and various clinico-epidemiological characteristics of AA in VSS medical College, Burla, Western Odisha which is a tertiary referral hospital catering to need of about 6-8 million people.

Materials and methods

This study was undertaken in the department of dermatology, VSS Medical College, Burla for a period of two years from May 2004 to May 2006.

Selection criteria

Patients attending the dermatology OPD having hair loss either patchy or diffuse with smooth bald surface and having no features of scarring, scaling or inflammation were included.

Methods

The study was carried on 70 Patients of AA after obtaining informed consent. The epidemiological data such as age, sex, family history, associated disease was collected. Other variables such as lesion site, number, size, shape, duration, associated diseases and nail changes were also recorded. A thorough clinical evaluation was done to assess the clinical pattern, extent and severity of alopecia areata. In doubtful cases, KOH mount for fungal study was done to rule out tinea capitis and VDRL was done in some cases to rule out syphilitic alopecia.

Statistical analysis

The data collected were statistically analysed using Microsoft Excel spread sheet and SPSS Version 20.0.

Results

Out of 70 patients, 88% were of AA classical type (Patchy), followed by 7% Alopecia Universalis (**Table - 1**). The age group of 21-30 years showed maximum prevalence of AA (43%) followed by 31-40 years (30%). There was an overall male preponderance of 74% (**Table - 2**).

Table - 1: Clinical Variants.

Clinical variant	Number of cases	%
AA	62	88%
AU	05	7%
AT	01	2%
Ophiasis	02	3%

Table - 2: Sex and Age distribution.

Age groups (years)	Male	Female	Total
0-10	4(50%)	4(50%)	8
11-20	5(55%)	4(45%)	9
21-30	24(80%)	6(20%)	30
31-40	17(80%)	4(20%)	21
More than 40	2(100%)	0(0%)	2
Total	52(74%)	18(26%)	70 (100%)

57% of the patients showed lesions on scalp, out of which 62.5% showed multiple lesions with a male dominance of 70%. It was followed by lesions on face (24%) where single lesion comprised of 88.2% (**Figure – 2 to 4**).

Excluding the AU, AT, and Ophiasis, considering the shape of the lesions, most of the patients had oval lesions (54%) followed by 23% circular and 23% reticular lesions.

Out of 70 patients, only 7 patients (10%) had nail involvement (**Figure - 1**). The pitting of nails

was commonest pattern followed by longitudinal ridging. Nail Dystrophy was seen only in 1 case.

Figure - 1: Pattern of nail involvement.

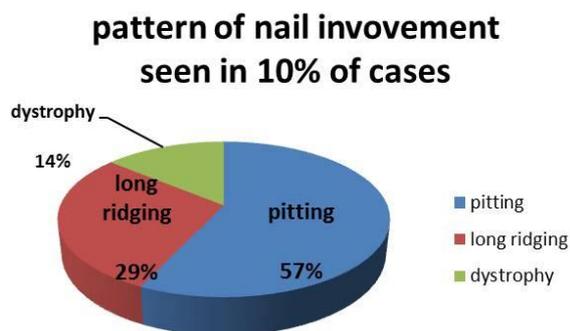


Figure - 2: AA over scalp.



Figure - 3: AA over beard area.



As regards to duration of disease, 71% of the patient reported within 6 months, 10% had their disease with in 6month to 1 year while 19% presented with disease for more than one year.

10 % of the patients reported with family history of AA. It was further noticed that these patients had extensive disease.

Figure - 4: AA over arm and forearm.



Figure - 5: AU with actinic LP.



Atopy was the most common condition associated with AA, seen in 10 % cases followed by lichen planus in 3% (**Figure - 5**) and vitiligo in 1.5% of cases (**Table - 3**).

Table - 3: Associated Diseases.

Associated Disease	No. of patients	%
Atopy	7	10
Lichen planus	2	3
Vitiligo	1	1.5

Discussion

Our study pointed that out of 70 patients, 88% were of AA classical type (patchy). It is similar to the study done in Northern India where classical variant is the more commoner variety [6, 7]. Alopecia Universalis was present in 7% of cases in our study which was slightly lower than the study done in Northern India (19%) [6].

The age of presentation of AA varied from 1½ to 48 years in our study and the age group of 21-30 years showed maximum prevalence of AA (43%) followed by 31-40 years (30%). There was an overall male preponderance of 74% with male to female ratio being 2.8:1 which was similar to the study done at Ludhiana where males outnumbered females with a ratio of 2.5:1 [8]. Our findings are similar to the study done in Northern India where the majority of patients (88%) were below 40 years of age, including 24% were below 16 years [6]. Our study differed from the findings of another research done in Baroda where AA was the problem of young males as 52.1 % patients were in 2-39 years age group and male to female ratio being 1.7: 1 [7]. A study done in Kashmir showed that the peak incidence of manifestation in all clinical variants of AA if grouped together, is between age of 20 and 50 years and the onset to occur is at any age [9].

57% of the cases in our study showed lesions on the scalp out of which 62.5% showed multiple lesions. It was followed by lesions on face (24%) where the single lesion comprised of 88.2%. It is quite similar to other studies [1, 6, 9, 10].

The pattern of hair loss can be reticular, ophiasis, and sisaipho. Ophiasis (snake-like) is a bandlike AA along the posterior occipital and temporal margins. Sisaipho, also called as Ophiasis inversus, presents with alopecia involving the frontal, temporal, and parietal scalp but spares hair along the scalp periphery, mimicking androgenetic alopecia [1]. Considering the shape of the lesions in our study, most of the patients had oval lesions (54%) followed by 23% circular and 23% reticular lesions. It is similar to the study done at Bhubaneswar where maximum number of patients excluding AU, AT and Ophiasis had oval and circular lesions (77%) and only 14 patients had reticular lesion [10].

In our study, only 10% of patients had nail involvement with pitting of nails seen as the commonest pattern followed by longitudinal ridging. Nail dystrophy was seen in only 1 case.

It is similar to observation of other studies [7, 10]. Nail changes can be seen in 10–66% of patients with small shallow pits (>30%) up to trachyonychia (sandpaper nails; >10%) are typical [11]. Nail changes were found in 20% and were more frequent in 47% with the severe form of AA [3].

Our observation of 71% of the patient reporting within 6 months is similar to studies done in Baroda [7]. 10% of our cases had the disease within 6 months to 1 year and 19% presented with disease for more than one year.

Our findings suggest that about 10 % of the patients reported with family history of AA. It was further noticed that those patients who had family history of AA had extensive disease. It was similar to findings of study done in Northern India where 9% of cases had a positive family history of AA [3].

Ikeda classified AA based on the associated conditions and on the course of the disease [12].

Atopic type: It begins early in life and mostly (30-75%) progresses to AT.

Autoimmune type: It is seen in middle-aged groups associated with autoimmune diseases, diabetes mellitus and progresses to AT in 10-50%.

Prehypertensive type: It is seen in young adults whose parents were hypertensive and progress fastly to AT in 40% of cases.

Common type: It affects adults aged 20-40 years and AT develops in 5-15% of cases

Findings in our study is quite similar to the study done in Bhubaneswar, where atopy was associated with AA in 10% of cases followed by lichen planus in 3% cases and vitiligo in 1.5% cases [10]. It is slightly lower than the study done in Ludhiana where 22.5% cases of AA reported with atopic manifestations [8]. Diseases associated with autoimmunity were seen in only 5% of patients. Atopy was found to be associated in 18% of patients. Presence of vitiligo in family members and onset before 20 years of age,

especially in boys or men, were found to be risk factors for severe alopecia [6].

Conclusion

Circumscribed variety of AA was found to be most common variant, mostly observed in 3rd and 4th decade, with a male preponderance. Scalp was the most common site with multiple lesions. Nail pitting was most commonly observed. Family history was directly related to severity of disease. Atopy was most commonly associated with AA. The limitation of the study was the low sample size, and large scale prospective study is needed to have a holistic approach to the problem.

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