PREVALENCE AND PROFILE OF ALOPECIA AREATA IN MANIPUR: A RETROSPECTIVE ANALYTICAL STUDY

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ABSTRACT

Alopecia areata is a non-scarring auto-immune hair loss on the scalp and/or body. Both males and females are equally affected. The disease can occur at any age. Data regarding the magnitude and profile of this disease is almost non-existent for the North-Eastern part of the country.

OBJECTIVE

The current study was taken up to make an estimate of the prevalence of alopecia areata in the state of Manipur and also to explore the profile of the patients.

MATERIALS AND METHODS

Data maintained in the OPD, Department of Dermatology, Manipur for the last 10 years (2006-2015) were retrospectively analysed for new cases of alopecia areata.

RESULTS

The prevalence of alopecia areata out of all the patients who attended the OPD was 2.17%. The mean age (SD) of the patients was 24.45 (± 13.74) years. Children below 14 years constituted 21% of all the cases. Majority of the patients (46%) belonged to the age-group of 15-30 years. On the average, there was male preponderance (M:F = 1.43:1). In the age group of 15-30 years, this ratio went up to 2.08:1. More than two-thirds of the patients (68.2%) were from the rural areas of the state.

CONCLUSION AND RECOMMENDATION

The prevalence of alopecia areata in the state of Manipur was found to be 2.17% of all the OPD cases in the Department of Dermatology. There was male preponderance for the cases. A community-based study is recommended so that an accurate community-based prevalence maybe estimated.

KEYWORDS

Alopecia Areata, North-Eastern India, Prevalence, Profile.

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INTRODUCTION

Alopecia areata is a non-scarring autoimmune hair loss on the scalp and/or body. Aetiology and pathogenesis are still not clearly known. The most common site affected is the scalp in the form of solitary or multiple patches of alopecia. The disease was first described by Cornelius Celsus and the term alopecia areata was first coined by Sauvages in 1760.¹ Both males and females are equally affected,^{2,3} yet some other studies reported the ratio to be higher among males.⁴⁻⁸ The disease can occur at any age including infancy period.⁹ 20-25% of cases are seen among children¹, the prevalence being highest during 30-59 years of age.^{1,2,3,7,8} Some other researchers reported a lower age of onset.^{10, 11} The prevalence of the disease in different parts of the world varies from 0.7 to 3%.^{1,2,4}

Data on the magnitude and profile of alopecia areata patients are rarely available for the North-Eastern part of India. Hence, the current study was taken up.

OBJECTIVE

To make an estimate of the prevalence of alopecia areata and to explore the profile of the patients.

MATERIALS AND METHODS

The study was a retrospective, hospital-based study. Patients attending the Outpatient Department (OPD) of the Department of Dermatology of the State Medical College (JN Institute of Medical Sciences, Manipur) during the last 10 years (2006-2015) were the study subjects. Secondary data maintained at the OPD of the same department was the source of information. Only those patients who were diagnosed for alopecia areata for the first time in his/her life were included for analysis implying that patients on followup visits were excluded. No identifiers like names were used for data analysis. Descriptive statistics like percentages, mean, median, and standard deviation were used for data analysis.

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RESULTS

During the period 2006-2015, a total of 227, 238 patients attended the OPD of the Department of Dermatology, JNIMS out of which 494 cases were cases of alopecia areata (2.17%). The annual prevalence for the last 10 years was found to be 3.15% (2006), 2.05% (2007), 2.18% (2008), 1.54% (2009), 2.65% (2010), 3.05% (2011), 1.66% (2012), 2.49% (2013), 1.92% (2014), and 2.11% (2015).

The mean age (SD) and median age of the alopecia areata patients were 24.45 years (± 13.74) and 24 years respectively. The youngest patient was a child aged 14 days whereas the oldest one was 67 years old. The number of children (<14 yrs.) cases out of the total 494 cases was 103 (20.9%). The age distribution of all the cases of alopecia areata was as given below in Table 1.

Age-Groups (in yrs.)	Number of Patients (%)
<15	128 (25.9)
15-<30	228 (46.2)
30-<45	101 (20.4)
45-<60	31 (6.3)
60 and above	6 (1.2)
Table 1: Age Distribution of Alopecia Areata Patients (n = 494)	

Majority of the alopecia areata patients were aged 15-30 years (46%) followed by subjects aged <15 yrs. (26%) and people aged 30-40 yrs. (20%). It was rarely seen among older people aged 60 years or more (1%).

The total number of male cases out of the total 494 cases was 291 giving a male:female ratio of 1.43:1. There was slight variation in this ratio across the different years of study (Table 2). In the years 2009 and 2012, female patients outnumbered male patients.

Years	Males	Females	M:F Ratio
2006	22	19	1.16:1
2007	29	15	1.93:1
2008	27	17	1.59:1
2009	21	22	0.95:1
2010	25	23	1.09:1
2011	35	22	1.59:1
2012	22	23	0.96:1
2013	35	20	1.75:1
2014	40	21	1.90:1
2015	35	21	1.67:1
Total	291	203	1.43:1
Table 2: Year-Wise Sex Composition of Alopecia Areata Patients			

The male:female ratio of the cases of alopecia areata across the different age group showed that males suffered from the disease doubly more than the females in the age group of 15-<30 years. For the other age groups, there was only slight male preponderance except for the age group of 60 or more years (Table 3).

Age-Groups (in yrs.)	Male	Female	M:F Ratio
<15	67	61	1.10:1
15-<30	154	74	2.08:1
30-<45	53	48	1.10:1
45-<60	16	15	1.07:1
60 and above	1	5	0.17:1
Table 3: Alopecia Areata Patients by Sex and Age (n = 494)			

More than two-thirds of the patients (337, 68.2%) belonged to the rural part of the country. This proportion showed a slightly rising trend during the years 2011 (79%), 2013 (76%), and 2015 (73%).

DISCUSSION

The prevalence rate of 2.17% for alopecia areata as found out from the current study was on the higher side when compared to results reported by Sharma VK et al¹ from their study done in the northern India. Yet, it was comparable with other findings reported by Tan E et al from their study at Singapore² and by Safavi KH et al⁴ in United States of America. From the current study, 21% of the alopecia areata patients were found to be children aged less than 14 years. This also was found comparable with the findings made by Sharma VK et al in northern India. The youngest case seen from the current study was only 14 days old, which is much younger than reported by Muller SA et al⁷.

The male:female ratio of 1.43:1 of the alopecia areata patients was in accordance with earlier study finding made by Tan E et al², Safavi KH et al⁴, Al-Mutani N et al⁵ and Bhat YJ et al⁶. The low male:female ratio among patients aged 60 years or more might be because of the fact that females in this age-group took the disease more seriously compared to male patients. The later finding could not be compared with other study findings as no other study has reported on this aspect.

More than two-thirds of the alopecia areata patients in the current study belonged to rural areas of the state. This finding was in support of the reports made by Sehgal BN et al¹² that socioeconomic factors might play a role in the initiation, development, and persistence of alopecia areata.

CONCLUSION AND RECOMMENDATION

The estimated prevalence rate of alopecia areata among all patients who attended the outpatient department of the Department of Dermatology in JNIMS, the state medical college of Manipur in the last ten years was found to be 2.17%. There was male preponderance for the cases. All age groups were affected. The highest being among adults aged 15-30 years. Even infants suffered from the disease. Patients from the rural areas outnumbered patients from the urban areas of the state.

A community-based study might be taken up in future, so that an accurate community-based prevalence of the disease may be made.

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REFERENCES

1. Sharma VK, Dawn G, Kumar B. Profile of alopecia areata in northern India. *Arch Dermatol* 1992;128(5):702.
2. Tan E, Tay YK, Giam CY, et al. The pattern and profile of alopecia areata in Singapore - a study of 219 Asians. *Int J Dermatol* 2002;41(11):748-53.
3. Frickle VAC, Miterva M. Epidemiology and burden of alopecia areata: a systematic review. *Clin Cosmet Investig Dermatol* 2015;8:397-403.
4. Safavi KH, Muller SA, Suman VJ, et al. Incidence of alopecia areata in Olmsted County, Minnesota, 1975 through 1989. *Mayo Clin Proc* 1995;70(7):628-33.
5. Al-Mutani N, Eldin ON. Clinical profile and impact on quality of life: seven years' experience with patients of alopecia areata. *Ind J Dermatol Venerol Leprol* 2011;77(4):489-93.
6. Bhat YJ, Manzoor S, Khan AR, et al. Trace element levels in alopecia areata. *Ind J Dermatol Venerol Leprol* 2009;75(1):29-31.
7. Muller SA, Winkelmann RK. Alopecia areata - an evaluation of 736 patients. *Arch Dermatol* 1993;88:290-7.
8. Ranawake RR. An observational study of alopecia areata in Sri Lankan adult patients. *Ceylon Med J* 2014;59(4):128-31.
9. McMichael AJ, Pearce DJ, Wasserman D, et al. Alopecia in the United States: outpatient utilisation and common prescribing patterns. *J Am Acad Dermatol* 2007;57(2Suppl):S49-51.
10. Amer E, Khallid J, Majid S, et al. Pattern and profile of alopecia areata in Pakistan. *J. of Pakistan Assoc of Dermatol* 2009;19:136-40.
11. Hassan S, Maryam A, Hamid A, et al. Evaluation of the profile of alopecia areata and prevalence of thyroid function test abnormalities and serum autoantibodies in Iranian patients. *BMC Dermatol* 2005;5:11.
12. Sehgal VN, Srivastava G, Aggarawal A, et al. Alopecia areata in the Indian subcontinent. *Skinmed* 2007;6(2):63-9.