

ORIGINAL ARTICLE

Quality of Life in Patients with Alopecia Areata presenting to the Department of Dermatology at a Tertiary Care Hospital of Lahore, Pakistan

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ABSTRACT

Background: Alopecia Areata (AA), also known as spot baldness is thought to be autoimmune in origin, marked by patchy, non-scarring hair loss. More recently, a strong association between the sufferers of AA and disorders of mood disturbances, anxiety and depression has been noted.

Aim: To determination the mean quality of life score in patients with alopecia areata (AA).

Study design: Prospective, cross-sectional study.

Place and duration: Department of Dermatology, Jinnah Hospital, Lahore from March 2021 to September 2021.

Methodology: After ethical approval, we included 124 patients irrespective of their gender aged between 18-60 years presenting with AA in this study after informed consent. Patient's demographic details were noted. Quality of life was assessed using Dermatology Life Quality Index (DLQI) score.

Results: Of the total 125 patients, about 59.2% patients were male and 40.8% females, with a mean of 29.72±11.01 years. The mean duration of disease was 9.45±8.56 months. DLQI score ranged from 2 to 24 with a mean of 6.74±4.60. When stratified, DLQI score was significantly higher among females ($p=0.008$), those with disease duration >12 months ($p=0.000$) and severe disease ($p=0.024$).

Conclusion: This study found that AA is associated with deterioration of quality of life of patients and the effect is more marked among female patients and those with more severe and chronic disease.

Key-words: alopecia areata, quality of life, dermatology, autoimmune disease

INTRODUCTION

Alopecia areata (AA) is characterized by immune-mediated, patchy, non-scarring hair loss¹. The scalp is most commonly involved site but in 1-2% of cases, the condition can extend to the entire scalp (alopecia totalis) or to the whole body (alopecia universalis) with equal risk in males and females. The exact etiology is unknown but there is an association with other autoimmune disorders like vitiligo, lichen planus, morphea, atopic dermatitis, Hashimoto's thyroiditis, pernicious anemia, and diabetes mellitus. Moreover, alopecia areata in its severe form is a refractory condition to treat.² Alopecia areata has a lifetime risk of approximately two percent³.

Males and females are equally affected by it. Children are frequently affected by the condition, which typically first manifests in young adults. The condition causes patchy areas of hair loss that can appear anywhere on the body or on the scalp with an abrupt onset. Patients with the condition usually underestimate their own level of psychological distress, which frequently results in severe psychological distress and social impairment.⁴

More recently, it has been noted that people with alopecia areata had a significant prevalence of mood, adjustment, depressive, and anxiety disorders. A few studies have been conducted as well to determine the relationship of alopecia areata with quality of life but the results of these studies have shown inconsistency.⁵

The aim of this study was to evaluate the quality of life in alopecia areata patients who presented to the dermatology department of a tertiary care hospital in Lahore. As the existing literature shows variation in the mean scores of quality of life as determined by DLQI with no local study available. The data obtained from this study will fill this gap by providing information regarding the quality of life in patients with alopecia areata an

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insight to the dermatologist about the psychiatric problems. Patients suffering from this condition not only get medical treatment for their condition but also to assess them and help them in improving their quality of life through psychological treatment for their low self-esteem and self-confidence. It will provide them thru extra counseling, psychological support, and timely referral to psychiatrist and relatively aggressive treatment for alopecia areata earlier in the course of the disease to decrease the morbidity in these patients.

MATERIALS AND METHODS

Ethical approval was taken from the Ethical Review Board of Jinnah Hospital, Lahore. This cross-sectional study was conducted at the Department of Dermatology, Unit-1 of the aforementioned hospital. After elaborated literature study, a sample size of 125 cases was calculated with 95% confidence level, $d=1$ and taking expected mean score on dermatology life quality index as 5.8+5.6⁵ The duration of study was six months, i.e. from March 10, 2021 to September 09, 2021. Patients were selected using the technique of non-probability, consecutive sampling.

Inclusion Criteria: Patients with alopecia areata (AA) from age 18 years to 60 years, irrespective of their gender who presented to our department for at least 3 months, with any kind of disease severity.

Exclusion Criteria: Patients suffering from any other dermatological, medical or psychiatric illness clinically determined on history, clinical examination and medical records.

Operational Definitions

Alopecia Areata: At least one round or oval patch of hair loss with the widest diameter of at least 1 cm occurring in scalp or any site of body hair (beard, eyebrows, eye lashes) with affected skin appearing normal and dear demarcation of the normal hair at the periphery of the lesion was labeled as alopecia areata.

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Quality of Life: This was assessed by Dermatology Life Quality Index (DLQI) questionnaire. The DLQI questionnaire is a preformed survey pro forma in English language, which was translated to our national language, i.e. Urdu for use among native speakers. It contains 10 questions assessing patient's feelings, thoughts and various aspects of the disease process in the previous week. The various themes of included questions are 'symptoms of alopecia', 'feelings', 'routine activities', 'kind of clothes', 'social or leisure activities', 'physical exercise', 'educational activities', 'sexual activities', 'interpersonal relationships' and 'treatment options'. Each item scores on a three-point scale (3= very much, 2=a lot, 1= a little, 0= not at all). Higher scores imply impaired quality of life.

Data Collection Procedure: Informed consent was taken from participants who met the aforementioned criteria. Information regarding their demographic data i.e. age, gender and address was noted in the pro forma. Quality of life was assessed by using DLQI questionnaire by the researcher herself and was scored as per operational definition. There was no breach of confidentiality throughout procedure of handling data.

Data Analysis Procedure: We entered and analyzed gathered data using SPSS version 20.0. Quantitative variables, like, patient's age, disease duration and DLQI score have been presented using both, measures of central tendency and central dispersion, i.e. mean and standard deviation (mean±SD). Qualitative variables, i.e. gender and severity of disease are represented by frequency and percentage. Obtained data has been organized and ordered for age, gender, duration and severity of disease separately. Independent sample t-test was applied setting p value ≤0.05 as statistically significant.

RESULTS

The mean age of presentation was 29.72±11.01 years. More than 78% of the included patients were aged under 40 years. There were 74, i.e. 59.2% male patients and the remainder being females with a male to female ratio of 1.5:1. The disease duration range was from 3 months to 36 months, with a mean of 9.45±8.56 months. In 96(76.8%) patients duration of disease was ≤12 months. 73(58.4%) patients had mild, 34(27.2%) had moderate, 16(12.8%) had severe disease while 2(1.6%) patients had ophiasis as shown in Table 1.

Table 1. Demographic Features of the Studied Sample

Characteristics	Studied Sample (n=125)
Age (years)	29.72±11.01
<40 years	98 (78.4%)
≥40 years	27 (21.6%)
Gender	
Male	74(59.2%)
Female	51 (40.8%)
Duration of Disease (months)	9.45±8.56
• ≤12 months	96 (76.8%)
• >12 months	29 (23.2%)
Severity of Disease	
Mild	73(58.4%)
Moderate	34(27.2%)
Severe	16(12.8%)
Ophiasis	2(1.6%)
DLQI Score	6.74±4.60

Table 2. Stratification of DQLI Score.

Characteristics	n	DLQI Score Mean ± SD	P value
Age Groups			
• <40 years	98	6.79±5.07	0.848
• ≥40 years	27	6.59±2.29	
Gender			
• Male	74	5.85±3.06	0.008*
• Female	51	8.04±5.99	
Duration of Disease			
• ≤12 months	96	5.44±3.15	0.000*
• >12 months	29	11.07±5.90	

Severity of Disease			
• Mild – Moderate	107	6.36±4.24	0.024*
• Severe/ Ophiasis Disease	18	9.00±6.01	

DLQI score ranged from 2 to 24 with a mean of 6.74±4.60 as shown in Table 8.1. When stratified, DLQI score was significantly higher among females (p=0.008), those with disease duration >12 months (p=0.000) and severe disease (p=0.024) as depicted in Table 2.

DISCUSSION

The dermatology department of Lahore General Hospital did this study to determine the mean quality of life score in patients with alopecia areata. The mean age was 29.72±11.01 years with a range of 18-60 years. Saleem et al (2009) in another local study reported similar mean age of 27±6.8 years⁶. Relatively lower mean age of 23.2±12.5 years was observed by Jameel et al (2008) among such patients presenting at Combined Military Hospital, Kharian Cantt⁷. Masmoudi et al in 2013 (32.92±11.81 years) and Qi et al. in 2015 (38.8±12.0 years) reported much higher mean age among such patients in Tunisia and China respectively^{8,9}. Majority 98(78.4%) of the patients were aged under 40 years. A similar higher proportion of this age group has been reported by Al-Mutairi et al (2011) who reported that 74.3% of patients with alopecia areata were aged less than 40 years in Kuwait¹⁰.

The male-to-female ratio was 1.5:1 with 74(59.2%) male patients and 51(40.8%) female patients. A similar male predominance among such patients has been observed by Saleem et al (1.5:1), Jameel et al. (2.6:1) in Pakistani population, Al-Mutairi et al (1.86:1) in Kuwait and Sharma et al (2:1) in Indian population^{6,7,10,11}. However, Chaitra et al (2010) in another study reported the same gender ratio (1:1) among the Indian population¹².

DLQI score ranged from 2 to 24 with a mean of 6.74±4.60. Our results are similar to those of Qi et al (2014) who reported similar mean quality of life score (5.8±5.6) among Chinese patients of alopecia areata and 7.9±7.6. Our research, however, contrasts with another study done in Kuwait, which found that patients with alopecia areata had a mean DLQI score of 13.54, which had a significant negative impact on their quality of life^{6,9}. When stratified, the DLQI score was significantly higher among females (p=0.008), those with disease duration >12 months (p=0.000) and severe disease (p=0.024)¹³. In our study DLQI in mild to moderate cases was found to be 6.36±4.24 and in severe case it was 9.00±6.01 which is almost comparable to results in a study done by Abedini where DLQI IS 5.4±6.8 in mild cases while in severe case it was found to be 10.7±7.5¹³ but it is in contrast to a study done by Maryam which showed DLQI 12.19±5.66 in mild cases, 9±4.77 in moderate cases and 7.45±6.25 in severe cases¹⁴.

CONCLUSION

In this study, individuals with more severe and chronic diseases as well as those who are female are more likely to experience alopecia areata-related quality of life decline. According to the findings of the current study, it is recommended that in the future, these patients be screened for psychiatric disorders and that appropriate action be taken to address these problems in addition to the standard medical treatment for alopecia areata.

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Limitations of the study: None.

Ethical consideration: The written consent was taken from patients and Ethical review was also obtained.

Conflict of interest: None

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