



Quality of Life in Patients with Alopecia Areata

¹Dr. K. Ravi. Rao, MD Dermatology, Dr. D. Y. Patil Medical College, Hospital and Research Pimpri, Pune, Maharashtra, India

²Dr. Sanjeev. B. Gupta, Professor, Department of Dermatology, Venereology and Leprosy, Dr. D. Y. Patil Medical College, Hospital and Research Pimpri, Pune, Maharashtra, India

³Dr. M. S. Deora, Professor & Head, Department of Dermatology, Venereology and Leprosy, Dr. D. Y. Patil Medical College, Hospital and Research Pimpri, Pune, Maharashtra, India

Citation of this Article: Dr. K. Ravi. Rao, Dr. Sanjeev. B. Gupta, Dr. M. S. Deora, “Quality of Life in Patients with Alopecia Areata” IJMSAR – July – 2021, Vol. – 4, Issue - 4, P. No. 50-57.

Copyright: © 2021, Dr. K. Ravi. Rao, et al. This is an open access journal and article distributed under the terms of the creative commons attribution noncommercial License. This allows others to remix, tweak, and build upon the work non commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Corresponding Author: Dr. K. Ravi. Rao, MD Dermatology, Dr. D. Y. Patil Medical College, Hospital and Research Pimpri, Pune, Maharashtra, India

Type of Publication: A Case Report

Conflicts of Interest: Nil

Abstract

Alopecia areata (AA) is common condition with limited treatment response can affect any age group individual. The objective of study was to assess quality of life in patients with alopecia areata and its relationship with severity, duration of illness.

265 patients attending dermatology department OPD in tertiary care centre were included in this study. Quality of life among them was assessed using Dermatology Life Quality Index (DLQI) questionnaire.

Mean age of study sample was 34.35 ± 9.74 years, there were 217 (82%) males and 48 (18%) females. Mean duration of onset of alopecia areata was 6.26 months with scalp (265) was most common site involved followed by beard (18).

Mean dermatology life quality index (DLQI) of study sample was 12.75 score (SD - 5.88) and mean SALT score was 9.03 (SD - 7.04). 119 (45%) subjects having very large effect on quality of life (11-20 score) followed by 84 (32%) subjects with moderate effect on quality of life (6-10 score). SALT shows highly positive correlation with DLQI ($p=0.00$). There was no significant difference between mean DLQI and SALT score among those with comorbid conditions like DM, HTN with those without it ($p > 0.05$).

Despite no significant difference between mean SALT score between two sexes while mean DLQI score among female (14.33) was higher than males (12.4) and the difference was statistically significant ($p = 0.039$).

Conclusion

Both genders are equally affected by alopecia areata having moderate to very large effect on quality of life.

Keywords

Alopecia areata, DLQI, SALT score

Introduction

Alopecia areata (spot baldness) is a dermatological condition in which hairs are lost from some part or all areas of the body. It can occur at any part of body but mainly affects scalp & beard.¹ It is autoimmune disease in which immune system act on own hairs and suppress or stop its growth.² The first usual symptoms are small bald patch; the underlying skin looks normal. These patches take mostly round or oval shaped later.³ It is diagnosed clinically, it might be heredity as it occurs more often in people who have affected family person.⁴

Alopecia areata (AA) affects 0.1%–0.2% of the total population,⁵ and males and females are equally affected. People affected with this condition have no other skin disorders.¹ Alopecia areata and androgenic alopecia moderately affects physiological aspect of quality of life (QoL) as well as the social and emotional aspect though they are not life-threatening conditions.⁶ AA has a negative impact on sexual quality of life.⁷ A high prevalence of comorbid conditions like thyroid disorders, diabetes mellitus and inflammatory bowel diseases among the individuals presenting with AA to academic medical centres in Boston. Physicians dealing with patients having AA should screen for other

autoimmune comorbid conditions.⁸ It can be the reason for psychological stress. Since baldness can lead huge changes in appearance, people with it might encounter social fear, tension, and depression.⁹

Assessment of treatment effectiveness is very tough and spontaneous remission can occur, existing therapeutic options are neither curative nor preventive.¹⁰ A meta-analysis conducted in 2008 shows no benefit of topical ciclosporin, oral & topical corticosteroids, topical minoxidil and photodynamic therapy on hair growth over placebo, especially the long-term benefits.¹¹ Most of the time which start with few patches of balding, hair becomes back hardly after a month to a year. In cases with a higher number of patches, hair can either develop back or advancement to alopecia areata totalis or, in uncommon cases, alopecia areata universalis.¹²

Material & methods

A descriptive study was conducted on patients attending dermatology OPD in tertiary care hospital in western Maharashtra during period of September 2016 to August 2018. Ethical committee clearance was taken prior to study; Total 265 patients were included in this study, after obtaining informed verbal consent from patients.

Based on the selection criteria patient a detailed history will be recorded with particular emphasis on the site of involvement, duration of the current episode of hair loss, treatment, etc.

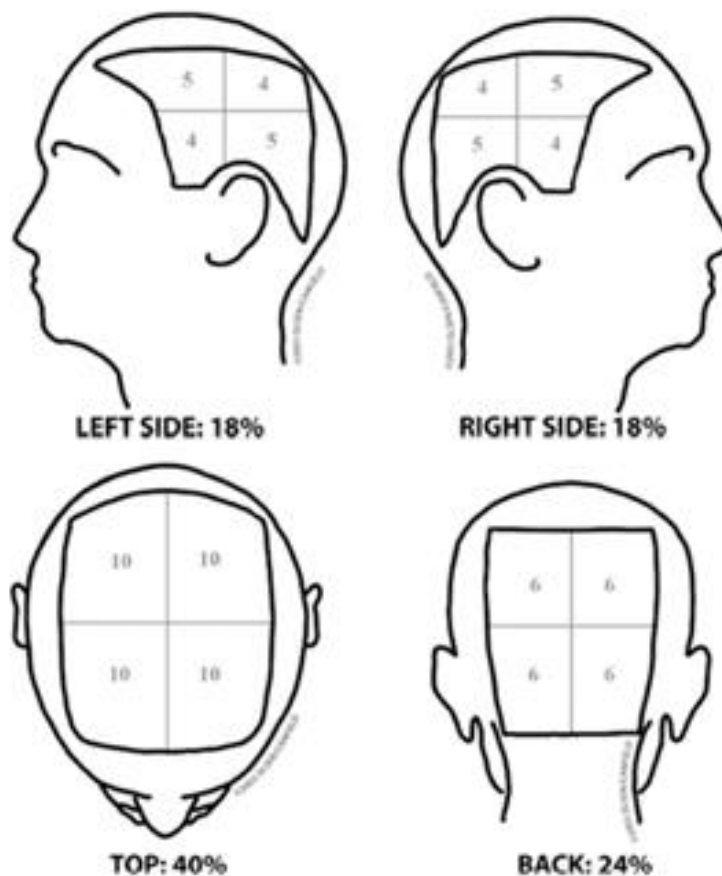


Figure: SALT Score

A global alopecia areata severity score “Severity of Alopecia Tool” (SALT), based on the combination of extent and density of scalp hair loss will be determined. The QoL assessment will be done with the help of a modified and prevalidated questionnaire based on the “Dermatological Life Quality Index” (DLQI) proposed by Finley and Kahn.

A. Inclusion Criteria

- All self-reported patients diagnosed clinically as alopecia areata of scalp reporting to the department of dermatology.
- Patients of the age range 18-60 years.

B. Exclusion Criteria

- Other types of alopecia (alopecia totalis, alopecia universalis).

- Alopecia involving other areas- eyebrows, moustache, beard, axillae and groin.
- Patients treated for alopecia areata in the past 6 months

Statistical analysis

Data was analyzed using SPSS software 16 version, Quantitative data are presented as means \pm standard deviations (SD) while qualitative data are presented as frequencies. The relationship between DLQI and other variables was evaluated by Spearman’s rank correlation coefficient.

Results

In 265 subjects, mean age of study sample was 34.35 years (SD - 9.74), with the highest 58 years and lowest 18 years. There were 217 (82%) males and 48

(18%) females, 92 (34.72%) samples were from 31-40 years age group.

Mean duration of onset of alopecia areata was 6.26 months (SD - 5.175), 214 (81%) subjects were having insidious onset and 233 (88%) subjects were having insidious progression of AA.

Scalp (265) was most common site of AA followed by beard (18), mustache (4), eyebrows (3), and axilla (2). Occipital area (150) was most commonly involve area of scalp AA followed by temporal area (95).

8 (3%) each was having telogen Effluvium and vitiligo, 2 (0.8%) subjects were having family history of AA.

Mean dermatology life quality index (DLQI) of study sample was 12.75 score with standard deviation of 5.88, with the highest 27 score and lowest 3 score. Mean SALT score of study sample was 9.03 with standard deviation of 7.04, with the highest 42 and lowest 1.

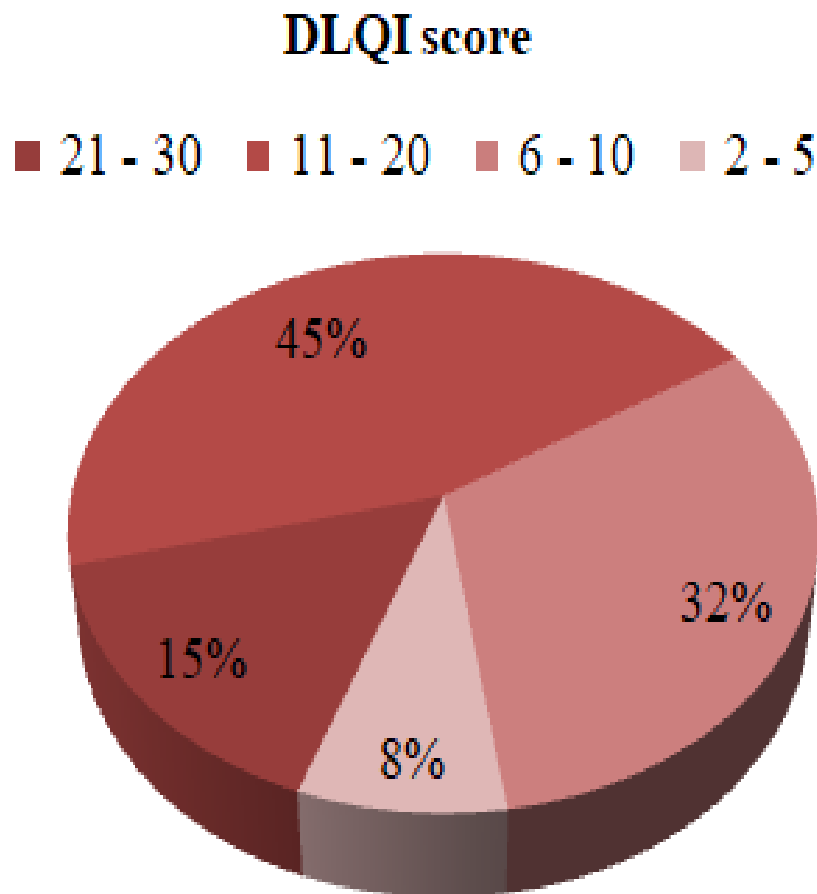


Image1. Bar diagram showing severity of DLQI among study subjects

119 (45%) subjects having very large effect on quality of life (11-20 score) followed by 84 (32%) subjects with moderate effect on quality of life (6-10 score). 41 (15%) subject were having extremely large effect on patients quality of life. (Image 1)

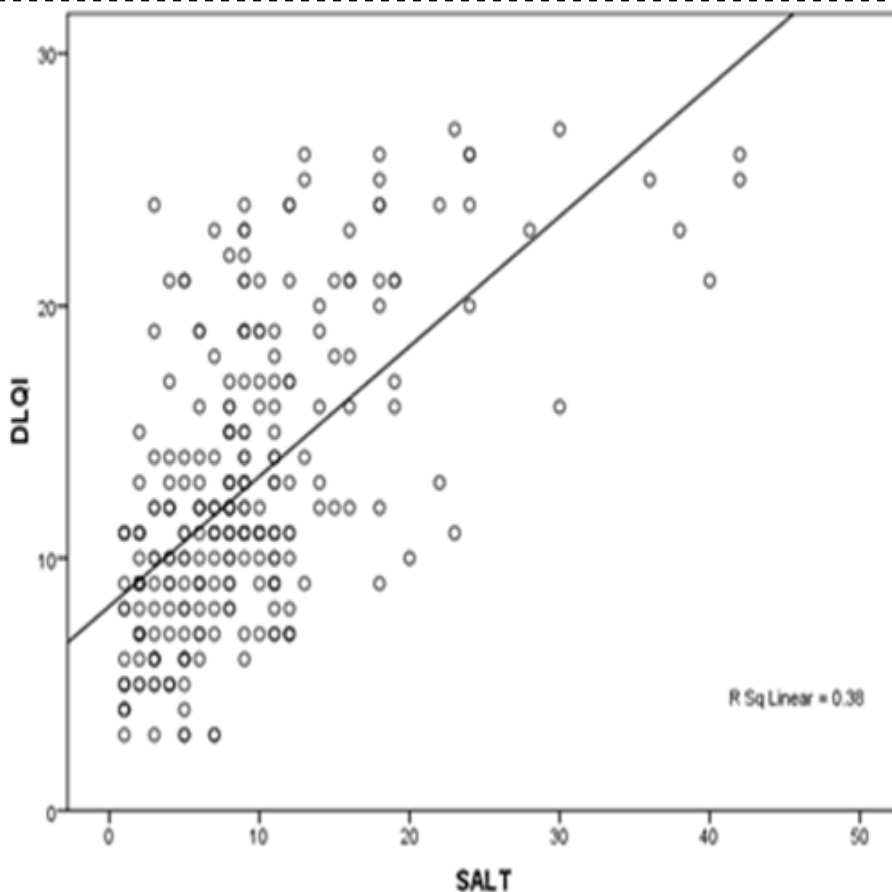


Image2. Correlation between SALT score & DLQI

Table 1: Correlation between DLQI with SALT score & age		
Parameter	Pearson correlation	p value
SALT with DLQI	0.617**	0.00
Duration of AA with DLQI	-0.010	0.866

On application of Pearson correlation, SALT shows highly positive correlation with DLQI (p=0.00). It means as SALT increases there was increase in DLQI. (Image 1) While duration of AA shows very weak negative correlation with DLQI but it was statistically not significant in this study (p = 0.866). (Table 1) There was no significant difference between mean DLQI and SALT score among those with

comorbid conditions like DM, HTN with those without it (p value 2.727 & 5.729 respectively).

There was no significant difference between mean SALT score between two sexes (p = 0.272) while mean DLQI score among female (14.33) was higher than males (12.4) and the difference was statistically significant (p = 0.039).

Discussion

Mean age of study sample was 34.35 (SD - 9.74), with the highest 58 years and lowest 18 years. It was approximately similar with other studied like 33.9±9.3 in FasalulAbideen, Anoop Thy Valappil et al¹³& 32.92±11.81 in Masmoudi J et al¹⁴ which suggest middle age predominance among subjects with affected quality of life. In this study, there was slight male majority for AA (M/F: 4.52), this is in agreement with other studies Min Zhang et al⁶, RobabehAbedini, Zahra Hallaji et al¹⁵ and FasalulAbideen, Anoop Thy Valappil et al.¹³

Atrophy was present in 10 (4%) subjects in this study while 5 (14.7%) in Dr.SalaimanAlsaieri, MohamadFatani¹⁶ and 31 (51.7%) in FasalulAbideen, Anoop Thy Valappil et al.¹³

All 265 subjects were having scalp involvement followed by beard (18) in this study. Similarly scalp (n=29, 48.3%) was most common site followed by beard area (n=15, 25%) in FasalulAbideen, Anoop Thy Valappil et al¹³ while 82.4% scalp & 41.2% beard in Dr.SalaimanAlsaieri, MohamadFatani.¹⁶

Mean duration of onset of alopecia areata among study sample was 6.26 months (SD - 5.175),

which was slightly lower than 1.4±3.6 years in FasalulAbideen, Anoop Thy Valappil et al.¹³ Duration of AA shows very weak negative correlation with DLQI but it was statistically not significant (p > 0.05) in this study similar observation was made by Al-Mutairi and Eldin.¹⁷

In this study SALT shows highly significant positive correlation with DLQI (Pearson correlation 0.617, p=0.00) while Janković S, Perić J et al¹⁸ shows severity of disease (SALT) correlated only with personal relationship - dimension of DLQI (ρ = 0.29, P < 0.05).

There was no significant difference between mean SALT score between two sexes (p = 0.272) similarly in Dr.SalaimanAlsaieri, MohamadFatani¹⁶ disease severity did not differ between males and females (P= 0.68).

All 265 (100%) subjects were affected quality of life which was higher than 70% affected cases in FasalulAbideen, Anoop Thy Valappil et al.¹³ This study having more subjects with moderate to higher affected quality of life than FasalulAbideen, Anoop Thy Valappil et al¹³ were most of subjects having no or small effect on quality of life.

Study	Mean DLQI
Current study	12.75±5.88
Robabeh Abedini, Zahra Hallaji et al ¹⁵	7.9±7.6
Ghajarzadeh et al. ¹⁹	6.4 ± 5.5
Al-Mutairi and Eldin ²⁰	13.54
Min Zhang et al ⁶	6.3±6.3
Williamson et al ²¹	8.3±5.6
Cartwright et al ²²	13.5
Qi et al ²³	5.8±5.6

Mean DLQI score among female (14.33) was higher than males (12.4) and the difference was statistically significant ($p = 0.039$). Similarly higher mean score in female (9.6 ± 7.6) than male group (6.8 ± 7.4) with statistically significant difference ($P = 0.02$) was observed by RobabehAbedini, Zahra Hallaji et al¹⁵ while Min Zhang et al⁶ found that mean score in female was (7.6415 ± 6.970) again higher than mean male score (5.7760 ± 5.8283) but there was no statistically significant difference. ($p = 0.087$)

In this study it was observed that hair falling created such a psychological impact on individual which make him feel guilty for not taking care of hairs and felt need of treatment from physician. Most of them used sentence such as “*hamari hi galtihai, hamneapnebalonkadhyannahirakha, isliye baal jhadgaih ai*” (it’s my own mistake; I have not taken proper care of my hair, that’s why they have fall).

Conclusion

In this study there was moderate to very large effect on quality of life was observed among alopecia areata subjects. There was no gender discrimination as most of subjects were middle aged men; Quality of life in females was more impaired than males due to involvement of scalp which is exposed part of body.

This study suggest that patient having alopecia areata are experiencing poor quality of life which affects their overall sense of wellbeing. Treating physician should stress over counselling to patient along with treatment as current treatment modalities having limitation effect.

References

1. Alopecia Areata at Merck Manual of Diagnosis and Therapy Professional Edition
2. Rajabi, F.; Drake, L.A.; Senna, M.M.; Rezaei, N. (2018). "Alopecia areata: A review of disease pathogenesis". British Journal of Dermatology. doi:10.1111/bjd.16808.
3. Freedberg IM, Fitzpatrick TB (2003). *Fitzpatrick's dermatology in medicine*. New York: McGraw-Hill, Medical Pub. Division. ISBN 978-0-07-138076-8.
4. Zoe Diana Draelos (August 30, 2007), Alopecia Areata Archived 2007-12-08 at the Wayback Machine. MedicineNet.com. Retrieved on December 2, 2007
5. Safavi KH, Muller SA, Suman VJ, Moshell AN, Melton LJ (July 1995). "Incidence of alopecia areata in Olmsted County, Minnesota, 1975 through 1989". Mayo Clinic Proceedings. 70 (7): 628–33. doi:10.4065/70.7.628. PMID 7791384.
6. Min Zhang, Nan Zhang. Quality of life assessment in patients with alopecia areata and androgenetic alopecia in the People’s Republic of China. Patient Prefer Adherence. 2017; 11: 151–155. Published online 2017 Jan 27. doi: 10.2147/PPA.S121218
7. Sara J Li, Kathie P Huang, Cara Joyce, ArashMostaghimi. The Impact of Alopecia Areata on Sexual Quality of Life. International Journal of Trichology / Volume 10 / Issue 6 / November-December 2018
8. Huang KP, Mullangi S, Guo Y, Qureshi AA. Autoimmune, atopic, and mental health comorbid conditions associated with alopecia areata in the United States. JAMA Dermatol. 2013 Jul;149(7):789-94. doi: 10.1001/jamadermatol.2013.3049.
9. Hunt N, McHale S. "The psychological impact of alopecia". BMJ. 2005 Oct 22; 331(7522): 951–953. doi: 10.1136/bmj.331.7522.951
10. Shapiro J (December 2013). "Current treatment of alopecia areata". The Journal of Investigative

- Dermatology. Symposium Proceedings (Review). 16 (1): S42–4.
11. Delamere, Finola M; Sladden, Michael J; Dobbins, Helen M; Leonardi-Bee, Jo (2008-04-23). "Interventions for alopecia areata". *Cochrane Database of Systematic Reviews* (2): CD004413. doi:10.1002/14651858.CD004413.pub2 . ISSN 1465-1858. PMID 18425901.
12. American Osteopathic College of Dermatology. Alopecia Areata. Archived 2007-12-13 at the Wayback Machine Dermatologic Disease Database. Aocd.org. Retrieved on December 3, 2007.
13. FasalulAbideen, Anoop Thy Valappil, Pretty Mathew, AjayakumarSreenivasan, Rajiv Sridharan. Quality of life in patients with alopecia areata attending dermatology department in a tertiary care centre - A cross-sectional study. *Journal of Pakistan Association of Dermatologists*. 2018; 28 (2): 175-180
14. Masmoudi J, Sellami R, Ouali U, Mnif L, Feki I, Amouri M, Turki H, Jaoua A. Quality of life in alopecia areata: a sample of Tunisian patients. *Dermatology research and practice*. 2013 Jan 1;2013.
15. RobabehAbedini , Zahra Hallaji , VahidehLajevardi ,Maryam Nasimi , Mona KarimiKhaledi , Hamid Reza Tohidinik. Quality of life in mild and severe alopecia areata patients. *International Journal of Women's Dermatology* 4 (2018) 91–94.
16. Dr. SalaimanAlsaiari, MohamadFatani. Demographic and clinical profile of alopecia areata in Makkah, Saudi Arabia and it's impact on quality of life. *International Journal of Medical and Health Research*, Volume 4; Issue 3; March 2018; Page No. 61-67.
17. Al-Mutairi N, Eldin ON. Clinical profile and impact on quality of life: Seven years experience with patients of alopecia areata. *Indian J DermatolVenereolLeprol*. 2011;77:489-93.
18. Janković S, Perić J, Maksimović N, Ćirković A, Marinković J, Janković J, Reljić V, Medenica L. Quality of life in patients with alopecia areata: a hospital-based cross-sectional study. *J EurAcadDermatolVenereol*. 2016 May; 30(5):840-6.
19. Ghajarzadeh M., Ghiasi M., Kheirkhah S. Depression and quality of life in Iranian patients with Alopecia Areata. *Iran J Dermatol*. 2011;14:140–143
20. Al-Mutairi N, Eldin ON. Clinical profile and impact on quality of life: Seven years experience with patients of alopecia areata. *Indian J DermatolVenereolLeprol*. 2011;77:489-93.
21. Williamson D, Gonzalez M, Finlay AY. The effect of hair loss on quality of life. *J EurAcadDermatolVenereol*. 2001;15(2):137–139.
22. Cartwright T, Endean N, Porter A. Illness perceptions, coping and quality of life in patients with alopecia. *Br J Dermatol*. 2009;160(5):1034–1039.
23. Qi S, Xu F, Sheng Y, Yang Q. Assessing quality of life in alopecia areata patients in China. *Psychol Health Med*. 2015;20(1):97–102.