ORIGINAL RESEARCH PAPER

Dermatology

TO ASSESS THE QUALITY OF LIFE AMONG ANDROGENIC ALOPECIA PATIENTS

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ABSTRACT

Introduction- Androgenic alopecia is a male predominant condition associated with loss of hair. This condition has a significant effect on self esteem of a person plus it also creates an impact on social and psychological which leads to disturbance on quality of life. **Aims & objectives-** The aim of this research is to assess the quality of life among androgenic alopecia patients. **Observation & Results-** The condition was more prevalent among individuals of age 21 to 30 years. Mean DLQI score obtained was 13.55 ± 2.15 and hair index score was 73.12 ± 12.76. Both "hair-specific Skindex-29 and DLQI" had a significant correlation, thereby suggesting that AGA significantly affects subjects QOL. **Conclusion-** AGA effects the quality of life of patients which shows that there is need of doctors to put emphasis on the improvement of this condition and minimize the burden of disease.

INTRODUCTION

Mammals are easily recognised by their distinctive hair. It has always been important in shaping people's identities, both aesthetically & mentally. Humankind's cultural diversity is mirrored in our many hairdos & grooming habits. It's an indication of the individual's standing & character. Hair excess or loss, such as in hirsutism or alopecia, is socially & cosmetically unattractive because of hair hype by the community & media advertising.[1]

"Androgenetic alopecia (AGA)" is the major kind of hair loss, distressing approximately 70% of males & 50% of women, & is caused by a genetically set progressive procedure that causes the gradual change of terminal hair into vellus hair.[2] With AGA, an overabundance of androgens causes the anagen phase of hair follicles to shorten, resulting in hairs that are finer, shorter, & may not even reach the epidermis.[3] The typical ratio of "anagen:telogen" hair is 12:1, however the study of diseased specimens showed a far lower ratio of 5:0.[4]

Although AGA is not dangerous, it can have a profound effect on a person's mental health & is linked to hormonal & hereditary variables. Past research suggests that AGA might cause psychological & social difficulties, such as melancholy, low self-esteem & less satisfying social interactions. Patients with AGA have a decline in QOL as a result of the relentless advancement of their condition. As a result, help in the form of therapy & treatment is crucial. There is a dearth of research on AGA patients' quality of life. In light of the future population's potential exposure to the disease, it was important to conduct this study to learn how the patient's psychological well-being is affected by the current stage of the illness.[5] Therefore, the current study is done to learn how the patient's psychological well-being is affected by the current stage of the disease.

MATERIAL & METHODS

This prospective study was carried out in a tertiary care centre in department of dermatology among 100 male subjects. Approval for the plan was obtained by Institutional ethical committee. Inclusion criteria was subjects aged 18-60 years old having AGA of Grades I-VII according to the Hamilton-Norwood classification. Patient who had other skin diseases were excluded. Informed consent was obtained from all participating patients, & their participation was entirely voluntary.

The pro forma had fields for collecting information about the respondent's age, alopecia length, education, marital status, & onset history. Each individual was assigned a socioeconomic category based on the "BG Prasad classification system". Both the "Dermatology Life Quality Index (DLQI)" & "the hair-specific Skindex-29" scale was used to evaluate patients' quality of life. Each patient's "DLQI score" ranged from 0 to 3, with a total possible score of 30. Emotion, function, & symptoms were the three components that made up the Hairdex scale. Each question on the proforma might be worth a max. of 5 points & a min. of 1, for a total possible score of 115. Each patient's total score ranged from a minimum of 29 to a high of 145.

In order to analyse the data, we used SPSS version 23.0. The data is demonstrated in the form of Mean ± SD values. Mann-whitney & t test were used to find out the independent variable score.

RESULTS

The demographic data of the subjects are represented in Table 1. The minimum age was 18 yrs & maximum was 60 yrs. The 45% of subjects belong to 21 to 30 years of age. The average age was found to be 35 years. The maximum 75% of subjects belonged to middle class socioeconomic status. 60% of subjects had urban background. Almost 58 % of subjects had completed their graduation. Out of total subjects 60 % had habit of alcohol intake.

Table 1 showing demographic data of subjects

Demographic variable		Percentage
Age	18-20	10
	21-30	45
	31-40	25
	41-50	16
	50- 60	4
Socio-economic class	Class I	9
	Class II	8
	Class III	75
	Class IV	5
	Class V	3
Urban / rural	Urban	60
	Rural	40
Education	Illiterate	12
	Till 12th	18
	Graduate	58
	Post graduate	12
Alcoholic/ Non alcoholic	Yes	60
	No	40

Table 2 shows characteristics of hair fall among subjects. Maximum number of subjects (53%) had duration of hairfall from 0 to 5 years. Majority (76.4%) of subjects had never taken any treatment for the condition

Table 2 shows characteristics of hairfall among subjects

Characteristics		Percentage
Duration of hairfall (years)	0-5	53
	5-10	23.8
	11-15	12.5
	16-20	10.7
Treatment history of	No treatment	76.4
	Hair oil	10.9
	Minoxidil	5.6
	Vitamin	3.8
	Topical steriod	3.3

Table 3 shows distribution of subjects according to "Hamilton Norwood scale". There were a total of 55 patients classified as having Grade III, the most severe form of the disease. This was followed by 11 people with Grade II and 1 with Grade IIA. With only three patients, Grade VII was the least afflicted. The greatest concentration of patients in Grade IIA was among those aged 21 to 30.

Table 3 shows division of subjects according to "Hamilton Norwood scale"

Grading	Age					Total
	18-20 yr	21-30 yr	31-40 yr	41-50 yr	>50 yr	
Grade 1	0	4	2	1	0	7
Grade 2	0	8	1	2	0	11
Grade 2 anterior	2	4	2	2	1	11
Grade 3	0	10	5	3	1	19
Grade 3 anterior	2	9	8	1	0	20
Grade 3 vertex	4	4	3	5	0	16
Grade 4	0	2	1	0	1	4
Grade 4 anterior	0	0	0	1	0	1
Grade 5	0	1	1	1	1	4
Grade 5 anterior	0	1	1	0	0	2
Grade 6	1	1	0	0	0	2
Grade 7	1	1	1	0	0	3
Total	10	45	25	16	4	100

Table 4 represent the mean ± SD score of "DLQI" & it was 13.55 ± 2.15. The total mean ± SD score of "Hairdex-29" was 73.12 ± 12.76. The various subscale parameter in "Skindex-29" were symptoms, emotions; functions, with score of 21.2 ± 4.015, 26.73 ± 4.123 & 24.99 ± 5.714 repectively.

Table 4 shows Mean ± SD values of different scales & subscales

Scales	Mean ± SD
DLQI scores	13.55 ± 2.15
Hairdex -29 score	73.12 ± 12.76
Symptom	21.2 ± 4.015
Function	24.99 ± 5.714
Emotion	26.73 ± 4.123

DISCUSSION

The aim of the current research was "to assess the quality of life among Androgenic alopecia patients". Experts agree that AGA is a harmless disease whose symptoms are largely aesthetic.[6] Yet, hair loss can have serious mental & social consequences. Hair loss can diminish one's physical attractiveness, lower self-esteem, instill a fear of ageing, & negatively impact one's social life. 19 One's quality of life is measured by how well they can go about their normal, age- & role-appropriate daily activities (QoL).[7] Patients with AGA have been shown to experience a decline in "quality of life" as a result of the chronic nature of the disease, as described in previous research. Hence, alongside conventional treatment, psychosocial management is crucial in these cases.[8-10]

The impact of AGA on quality of life was found to be consistent with previous research.[11-13] Our results mirrored those of earlier research showing that young adults are disproportionately affected. All age groups reported feeling the consequences of hair loss, but younger males seemed particularly vulnerable.

According to Goldberg-Huxley, people who seek out both specialised care & their primary care physician have a lower quality of life than those who simply "cope" with their illness.[14]

Our results show that the psychological effect of alopecia & its role in defining identity persists, as more than half of the individuals in our study reported an analysis more than 5 years ago & were still taking medical treatment.

Patients tended to be middle class, city-dwelling, & single. The major precipitating factors in the development of AGA are an emotionally distressing environment (typical of modern metropolitan households) & the fear of hair loss. Younger people, who are more vulnerable to the stresses of modern city life, were the most aware of these shifts.

Patients with alopecia reported an increase in symptoms including always irritated, scalp irritation, itching sensation, which is consistent with earlier findings addressing the psychological results of alopecia[15-17]. Several patients felt an overwhelming aversion to socialising with anyone outside of their own family & friends. In line with the results of Wells et al., people suffering from MPHL (Male pattern hair loss) often felt ashamed, humiliated, & depressed.[18] Our results are consistent with those of a previous research by Alfonso et al[19], which found that social isolation & depression were common outcomes.

Anxiety & stress over hair loss, as well as clinical symptoms, emotional stability & functional behaviour, all impact quality of life. The patients' overall condition worsened. In line with Tahir et al., the mean "DLQI" was quite high.[20] According to the low DLQI score, it appears that AGA has a detrimental effect on the person's quality of life. Alterations in mood brought on by coming to terms with hair loss perpetuated the cycle of despair & anxiety by causing people to cut back on activities like going to the gym & spending time outside. Patients had no choice but to seek out unconventional ways, such as donning hats & wigs, to alleviate the psychological & social strain caused by these issues. Patients' financial burdens & sense of worth would both increase with the use of such methods.

In our research, among symptoms, emotions & functions in the "hair-specific Skindex-29", the symptom scale was the most skewed, which may explain why individuals with AGA tend to focus on their itchy, burning scalps before coming to terms with the fact that their condition is progressive & chronic. The majority of our patients experienced just Grade III condition, which may be seen as a natural occurrence in today's lifestyle, limiting their reaction in terms of losses at emotional & functional level. Acceptance of the condition & the realisation that it may ultimately result in full baldness are the first steps towards coping with the emotional & functional consequences of AGA.[21-23] Illness identification, disease results, & a robust emotional response were deemed to be the most crucial aspects of sickness perceptions. Emotional conditions are rising as a significant predictor of QOL, joining the ranks of identity & consequences as major predictors of outcomes in other

researches with chronic illness.[24,25]

Genetic testing for the "androgen receptor gene" has recently been introduced to aid in the diagnosis of male pattern of baldness & provide insight into the patient's prognosis. Better management of AGA is now possible thanks to the availability of novel therapies including "platelet-rich plasma (PRP) therapy" & "low-level laser light therapy (LLLT)", in addition to the use of established medication treatments like minoxidil & finasteride. Yet, current treatments can only postpone the inevitable; they cannot stop the process altogether. Maintaining a regular schedule of PRP & LLLT treatments can increase hair thickness by 30%, but these gains are lost once treatment stops. Research is needed to determine if these kinds of interventions are helpful in enhancing subject outcome & decreasing psychological issues in the middle of persons who suffer from alopecia.

CONCLUSION

AGA is a skin disorder that can have negative psychological & social effects. Visible hair loss has been shown to have a moderately unfavourable impact on physical health, mental health, social functioning, & psychological outlook. Not to mention, AGA is often felt to be a highly stressful situation that lowers self-esteem due to negative perceptions of one's physical appearance. Physicians can aid in QOL enhancement by identifying & treating the emotional effects of alopecia on their patients.

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