

Depression and quality of life in Iranian patients with Alopecia Areata

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Background: Alopecia Areata (AA) is a skin disease which affects 0.2 % of general population. Unlike its little physical impairment, Alopecia areata causes a lot of cosmetic problems but most clinicians do not pay attention to mood disorders and the impaired quality of life as the consequences of disease.

Objectives: To evaluate depression and quality of life in Iranian patients with Alopecia areata .

Methods: From January 2009 until January 2010 one hundred alopecia areata patients who were randomly selected (through simple random selection) from the outpatient clinic of Razi Hospital were asked to answer valid and reliable instruments such as Beck Depression Inventory (BDI), SF-36 and DLQI (Dermatology Life Quality Index) questionnaires.

Results: The mean scores of BDI, SF-36 and DLQI of the patients were 14.4 ± 9.7 , 68.04 ± 15.1 and 6.4 ± 5.5 , respectively. The BDI score was significantly different between male and female participants ($F=18.1 \pm 11.2$ vs. $M=12.7 \pm 8.5$, $p=0.01$) but SF -36 and DLQI scores did not significantly differ between the two gender groups. Duration of the disease, BDI and age had no significant correlation with DLQI scores. Patients with extensive beard involvement had the highest BDI score and the lowest SF-36 score.

Conclusion: mood disorders should be considered in Alopecia areata patients to address the risk of markedly impaired quality of life

Keywords: Alopecia areata, depression, quality of life, Iran

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INTRODUCTION

Alopecia Areata (AA) is a skin disease with a prevalence of 0.2 % in the general population and an unknown aetiology.¹ Some factors such as genetics, autoimmunity and stress have shown to play a role in AA development.² It manifests with sudden hair loss in restricted areas or the whole body.

Since hair is a vital part of the body, hair loss might have negative effects on patient's life. The different look, mostly in patients with visible patches, may cause a low self-esteem and body

disfigurement.

As a chronic disease, it may influence social activity, self -perception, economic state and feelings. Fifty eight percent of Iranian AA patients believe that the disease has a major effect on their lives.³

In a previous study, depression was reported in 31% of AA cases⁴ while Güleç et al found no significant differences between AA cases and healthy controls. Also, they found that components of quality of life were not impaired in affected cases.⁵

The goal of this study was to determine quality of life impairment and depression in Iranian patients with alopecia areata.

MATERIALS AND METHODS

From January 2009 until January 2010, one hundred alopecia areata patients who were randomly selected (by simple random selection through a random selection table) from the outpatient clinic of Razi Hospital (Center of Skin Diseases of Tehran University of Medical Sciences) and had the disease for at least three months were asked to answer valid and reliable instruments such as Beck Depression Inventory (BDI), SF-36 and DLQI (Dermatology Life Quality Index) questionnaires.

DLQI, which was introduced by Finlay and Khan ⁶, is a self-explanatory survey which consists of ten questions in which answers score from 0-30. High scores indicate further impairment in the quality of life. The Persian version was used for measuring the effects of alopecia areata on the quality of life. ⁷

The SF-36 questionnaire consists of 36 questions in eight aspects and is an instrument for the evaluation of the quality of life. All questions are scored on a scale of 0 to 100, with 100 representing the highest level of functioning possible. Higher scores indicate less impairment in the quality of life.

A valid and reliable version of this questionnaire in Persian was applied in our survey. ⁸

Beck Depression Inventory (BDI) should be answered according to the patient's feelings in the last week and consists of 21 questions. Each answer scores from 0-3 to determine how depressed a person is. Individuals with scores between 0 and 9 are not recognized as depressed, scores between 10 and 18 indicate mild to moderate depression, scores between 19 and 29 values indicate individuals with moderate to severe depression, and scores between 30 and 63 correspond to severe depression. ⁹ All cases were asked to fill informed consent forms.

The study was approved by the Ethics Committee of Tehran University of Medical sciences.

SPSS version 18.0 was used for data analysis and the differences between groups were evaluated by the Kruskal-Wallis test. Person correlation was used for association of DLQI and BDI. P value <0.005 was considered significant.

RESULTS

One hundred alopecia areata patients participated in this cross sectional study. The mean age of the participants was 23.02±33.4 years and the mean duration of the disease was 12.8±31.3 months. Thirty one patients were female and 69 were male with an M/F ratio of 2.22. Forty five were single, 53 were married and 2 were divorced.

The mean scores of BDI, SF-36 and DLQI of the patients were 14.4±9.7, 68.04±15.1 and 6.4±5.5, respectively. There was no significant association between DLQI and the duration of the disease (r=-0.04, p=0.6) along with no association between DLQI and age (r=-0.01, p value=0.1). There was a significant association between DLQI and BDI score (r=0.34 p value<0.001).

Thirty cases were mildly depressed, 22 were moderately depressed and 9 were severely depressed.

BDI scores were significantly different between male and female participants

(F=18.1 ±11.2 vs. M=12.7±8.5 p=0.01) but SF -36

Table 1. BDI, SF-36 and DLQI scores were not significantly different between different age groups.

Group	BDI	SF-36	DLQI
Less than 25 years old	17.6 ± 8.8	65.2 ± 15.8	6.8 ± 4.5
26-35 years old	13.5 ± 9.5	68.2 ± 14.8	6.9 ± 6.4
36-45 years old	12.9 ± 8.9	67.5 ± 16.8	5.7 ± 6
46-55 years old	10.2 ± 11.2	77.5 ± 11	3.7 ± 2.9
More than 55 years old	4 ± 1.4	77.5 ± 0.01	2.5 ± 1

P value for BDI: 0.08

P value for SF-36: 0.4

P value for DLQI: 0.2

Table 2. mean score in cases with the involvement of scalp.

Scalp involvement	Number of cases(percent)	Beck	DLQI	SF-36
less than 25%	49 (49%)	16.5 ± 10.8	5.9 ± 4	66.8 ± 15.8
50%-26	12 (12%)	12 ± 7.5	9.7 ± 8.05	67.6 ± 14.1
51-75%	6 (6%)	16.1 ± 5.9	14.1 ± 7.02	59.7 ± 11.7
76-100%	5 (5%)	11.4 ± 12.3	7.8 ± 6.6	69.9 ± 15.6

BDI and SF-36 were not significantly different between four groups (p=0.4, p=0.6) but DLQI was significantly different (p=0.002)

Table 3. mean score in cases with the involvement of eyebrow.

Eyebrow involvement	Number of cases(percent)	Beck	DLQI	SF-36
less than 25%	4 (4%)	10.7 ± 8.5	3.7 ± 2.8	70.2 ± 17.8
50%-26	2 (2%)	9.5 ± 9.1	15.5 ± 2.1	58.6 ± 7.9
51-75%	1 (1%)	21	6	75.6
76-100%	4 (4%)	12.2 ± 14.1	8.2 ± 7.6	69.8 ± 18.01

None of the scores were significantly different between the four groups

Table 4. mean score in cases with the involvement of eyelashes

Eyelash involvement	Number of cases (percent)	beck	DLQI	SF-36
less than 25%	5 (4%)	17 ± 5.4	8.8 ± 4.7	68.8 ± 5.1
50%-26	1 (1%)	3	14	53
51-75%	0 (0%)			
76-100%	4 (4%)	12.2 ± 14.1	8.2 ± 7.6	69.8 ± 18.01

Table 5. mean score in cases with the involvement of beard

Beard Involvement	Number of cases (percent)	beck	DLQI	SF-36
less than 25%	31 (31%)	12.8 ± 6.7	5.7 ± 5.6	68.4 ± 14.01
50%-26	8 (8%)	6.8 ± 3.6	3 ± 2.6	80.8 ± 6.9
51-75%	3 (3%)	17.3 ± 15	9.6 ± 5.8	46.7 ± 7.01
76-100%	5 (5%)	13.2 ± 12.1	10.2 ± 7.3	65.6 ± 15.8

SF-36 scores were significantly different between four groups.

and DLQI scores did not significantly differ between the two groups (DLQI: 6.4±6.04 vs. 6.2±4.3, $p=0.8$, SF-36: 68.1±15.03 vs. 67.7±15.7, $p=0.8$).

DISCUSSION

To our knowledge, this is the first study to evaluate the quality of life and depression in Iranian alopecia areata patients. Alopecia areata is a chronic skin disease which influences personal and social aspects of the patients' lives. Most dermatologists do not consider consequences of the disease such as psychological and emotional problems, so most AA cases do not receive consultation for their mental and emotional problems by their physicians. In a previous study, Firooz et al found that fifty eight percent of AA cases believed that the disease had major effects on their lives and 53% inferred that AA strongly affected their self concept.³

In the current study, 61% of the participants were depressed and the mean BDI score of all the cases was 14.4 ± 9.7 which was significantly different between male and female patients; it was higher than the BDI score calculated in the study conducted by Güleç et al (11.52±9.1 in a survey of 52 patients).⁵ Our results were in agreement with a study conducted by Colon et al which showed depression in 39% of AA cases.⁴

The higher BDI score in women may be due to the importance of hair loss to them and the impact of hair loss on their appearance. In a study by Maffei et al, it was suggested that hair loss in women could be associated with psychological problems such as depression.¹⁰

The location and extension of the patches is considered to have important roles in self concept. Cases with extensive beard involvement had the highest BDI score and the lowest SF-36 score, but the disease adjusted quality of life impairment was higher in patients whose eyebrows were moderately involved (highest DLQI).

In the present study, most AA patients were male (63%) and the mean duration of the disease was 12.8±31.3 months which is consistent with the findings of Güleç et al. In their study, 65 % of the participants were male and the duration of AA was 8.55±14.09 months.⁵ We found no association between the duration of the disease and DLQI and noted no difference between male and female cases.

This survey quantified the burden of alopecia areata on the quality of life of a sample of 100 Iranian patients expressed as an overall mean DLQI and SF-36 scores of 6.4± 5.5 and 68.04 ± 15.1, respectively. A positive correlation between BDI and DLQI indicated that patients with severe

depression caused by the disease might have further impairment in the quality of life. In a survey conducted by Güleç et al, they reported lower vitality and mental health scores in alopecia areata patients rather than the controls whereas social functioning scores were higher in patients.⁵

On the other hand, depression was noted in 21% of the women with alopecia in a study by Hirsso et al, whereas physical functioning, general health and role limitation aspects of the quality of life were significantly lower in patients as compared to the healthy controls in their experience.¹¹ Actually, Schmidt et al reported reduced scores in social and emotional components of the quality of life in female patients with alopecia by an instrument specific for patients with hair loss (Hairdex).¹²

Conclusions

Quality of life impairment and mood disorders should be considered in alopecia areata. So, effective treatment of the cases of alopecia areata should include different aspects of the disease such as the psychological aspects.

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