

A CROSS-SECTIONAL STUDY OF QUALITY OF LIFE AND PSYCHIATRIC MORBIDITY IN PATIENTS WITH ACNE VULGARIS

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ABSTRACT

Objective: The objectives of the study were: (i) To assess the psychiatric morbidity and quality of life of patients with acne vulgaris. (ii) to evaluate the relationship between acne severity, anxiety, depression and disease specific quality of life in patients with acne vulgaris.

Design: Cross sectional study.

Place and duration of study: The study was conducted in the psychiatry outpatient department of a teaching medical institution in New Delhi, India during January to September 2006.

Subjects and Methods: Forty six patients of Acne vulgaris were studied in dermatology department of general hospital jointly by psychiatrists and dermatologists. Acne severity was graded by dermatologists using Global Acne Grading System, Psychiatric morbidity and Quality of life were assessed by psychiatrists. All patients were administered a General Health Questionnaire (GHQ) (12 item), a 17 item HAM-D Scale, a Hamilton Anxiety Rating Scale (HAM-A) and Dermatology specific quality of life (DSQL) Scale.

Results: Showed existence of clinically significant depression in 39.1% and anxiety in 4.35%. There were statistically significant differences between males and females with respect to GHQ but not with HAM-D and HAM-A. There was positive correlation between mean GHQ scores and perceived severity ($r = 0.327$, $p = 0.02$). We found no correlation between acne grading and HAM-D, HAM-A or DSQL.

Conclusion: The present study has clearly depicted higher psychiatric morbidity in patients with acne vulgaris. We found no correlation between disease severity, anxiety, depression and quality of life in patients with acne vulgaris. Patients' perception of their disease might be important consideration in the evaluation and treatment of acne vulgaris.

Key words: Acne vulgaris, Quality of life, Anxiety, Depression.

INTRODUCTION

Acne vulgaris items is commonly referred to as *acne*, is a chronic inflammatory disorder of the pilosebaceous unit. Acne vulgaris affects atleast 85% of adolescents and young adults^{1,2}. Acne can probably be exacerbated by psychological stress³.

The influence of acne on body image is believed to be the main factor associated with psychological morbidity. As the face is almost always site of involvement by acne, its presence can alter one's perception of body image.

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Psychiatric disorders can develop secondary to acne vulgaris^{4,8}. Clinical depression, social phobia and anxiety disorders have been associated with acne. Earlier studies have suggested that acne may be associated with decreased self - esteem / self - confidence, interpersonal difficulties, unemployment and increased prevalence of depression and anxiety. Cotterill and Cunliffe⁵ have described sixteen cases of completed suicide among dermatology patients, seven of whom had acne. The impact of acne upon the quality of life is a very important component of assuring its overall morbidity and often is the primary consideration in deciding

whether or not to institute therapy. Mallon et al⁷ reported that acne patients reported levels of social, psychological and emotional problems that were as great as those reported by patients with bronchial asthma, epilepsy, diabetes, back pain or arthritis.

MATERIAL AND METHODS

Sample:

The cross-sectional study consisted of 46 new, consecutive patients of acne vulgaris reporting to the dermatology out patients department of a tertiary care teaching hospital. The acne severity was graded by Dermatologists using Global Acne Grading Systems (GAGS)⁸.

Inclusion Criteria:

- (1) All patients of acne vulgaris from 14-30 years of age.
- (2) Patients who gave informed consent.

Exclusion Criteria:

- (1) All patients with comorbid skin conditions like Psoriasis, Lichen planus were excluded.
- (2) All patients with chronic medical, surgical conditions were excluded from the study.
- (3) All patients with organic brain syndrome, chronic mental illness were excluded from the study.

Informed consent was taken from the patient for their inclusion into the study. The sociodemographic profile of the sample was noted on the performa specially designed for the purpose of the study. Relevant case history including Psychiatric and dermatological history was also noted on the performa.

Assessment of Psychiatric morbidity

1. 12-item General Health Questionnaire (GHQ)⁹.
2. 17- item Hamilton Rating Scale for Depression (HAM-D)¹⁰.
3. Hamilton Rating Scale for Anxiety (HAM-A)¹¹.

Assessment of Quality of Life

Dermatology – Specific Quality of Life (DSQL) Instrument¹² :

In this instrument, QOL items form 5 general groupings

- (I) Physical symptoms and somatic complaints.
- (II) Activities of daily living (including functional status, personal care and grooming).
- (III) Social activities and functioning.
- (IV) Experiences at work or school or both.
- (V) Self-perception.

DSQL is intended as a self administered QOL profile which can be completed in 15 minutes or less. It assesses bothersome symptoms, quality of life and perceived severity in patients of acne vulgaris on a global item scale from 1 to 10.

The aims of this study were to assess psychiatric morbidity and quality of life in patients of acne vulgaris and also to evaluate the relationship between acne severity, anxiety, depression and disease specific quality of life in patients with acne vulgaris.

Apart from Psychiatric morbidity and Quality of Life of patients, their Socio-Demographic Profile was also assessed.

Statistical Analysis

Data were analyzed by using a statistical package for the computer. Scores obtained from the scales were compared by using the t-Test, correlations were examined by Pearson's Correlation Analysis.

RESULTS

The study group consisted of 26 males and 20 females. No patient dropped out from the study. 52% of patients had their age group in the range of 14-18 years which is representative the clinical population of acne vulgaris. 54% of total patients were students (Table1).

Table 1
Socio demographic profile of patients with Acne vulgaris (N = 46)

1.	Age Group (Years)	Number	Percentage
	14-18	24	52.10
	19-24	16	34.70
	25-30	6	13.20
2.	Sex		
	Male	26	56.50
	Female	20	43.50
3.	Literacy		
	Literate	40	86.90
	Illiterate	6	43.50
4.	Occupation		
	Employed	12	26.00
	Unemployed	9	19.70
	Student	25	54.30

Mean GHQ of the study sample was 3.56. The number of patients with clinically significant depression was eighteen and mild, moderate and severe depression was noted in six patients each respectively, clinically

significant anxiety symptoms were noted in two patients. A score of 14 has been suggested as threshold for clinically significant anxiety in Hamilton Rating Scale for Anxiety (HAM-A). A score of 8-13 for mild depression, 14-18 for moderate depression, >18 for severe depression has been suggested for 17- item Hamilton Rating Scale for Depression (HAM-D) (Table 2).

Table 2
Psychiatric Morbidity in patients with Acne Vulgaris

Rating Scale	Number of patients with clinically significant scores	Percentage (%)
HAM-D (N = 46)	18	39.1
HAM-A (N = 46)	2	4.35
GHQ (N=46)	25	54.35

When the male and female patients of acne were grouped according to HAM-D, HAM-A scores and GHQ, statistically significant differences were observed between males and females with respect to GHQ, though no such differences were observed with respect to HAM-D and HAM-A (Table 3).

Table 3
The Mean Scores of Male and Female Patients on the Psychiatric Morbidity Rating Scales

	Female N=20	Male N=26	t-Test		
			T	df	p
GHQ	5.50± 4.52	2.08± 2.62	3.016	28.63	0.005
HAM-D	10.75± 9.85	7.77± 8.49	1.080	37.6	0.287
HAM-A	5.05± 3.98	3.12± 3.83	1.661	40.2	0.104

Quality of Life had negative correlation with GHQ ($r=-0.412, p=0.004$) and perceived severity ($r=0.327, p=0.02$). Positive correlation was found between mean GHQ scores and perceived severity ($r=0.327, p=0.02$). No relationship was found between acne Grading and HAM-D, HAM-A scores and DSQL items. (Bothersome symptoms, Quality of life and perceived severity).

DISCUSSION

Quality of life(QOL) has been defined as a useful measure which assesses the functioning, well-being, and life satisfaction of an individual. QOL refers to , not only the subjective sense of well-being but also objec-

tive indicators such as health status and external life situations. QOL is emerging as one of the recent trends in assessing treatment response from the patient's point of view.

The present study has reiterated the fact that the patient's perception of acne might be an important indicator for the treatment. Our study found out that patient's perception of severity did correlate with psychiatric morbidity. Interestingly, we found no correlation was seen between clinician rated acne severity and perceived severity as noted on DSQL

We reported no correlation between acne vulgaris severity, DSQL, HAM-D, HAM-A, GHQ . Similarly, the previous study by Aktan et al. of 2657 high-school students, also reported no correlation between acne severity and HAM-D or HAM-A scores.¹³

The patients' perception of acne might include factors other than the size and number of lesions. Patients' perception of their disease might be important consideration in the evaluation and treatment of acne because facial acne is highly visible and carries a certain degree of social negativity, it has been hypothesized that even mild acne can decrease a person's self confidence, body image, willingness to be seen in public and social interactions.¹⁴ Martin et al¹⁵ observed that quality of life scores correlated more strongly with patient reported severity than with physician reported severity.

Dermatology outpatients had a higher prevalence of psychiatric disorder than the general population. Our findings are similar to previous studies which also reported higher depression and anxiety scores in patients of acne. The previous studies also made comparisons with other dermatological conditions.^{13,16-19}

Gupta and Gupta⁵ examined depression and suicidal ideation in dermatology patients and found that patients with mild to moderate clinical significant gender differences were seen on mean scores of GHQ. This was also reported by Hughes et al²⁰ and Rubinow et al²¹ .We also found that female patients of acne had significantly higher mean scores of GHQ. We found no gender differences in HAM - D, HAM – A scores. Previous study by Yazici et al. also found no gender differences in acne quality of life scale and hospital anxiety and depression scale.¹⁶

The major strengths of the study is sound methodology including the use of a disease specific measure for the assessment of QOL of patients with acne vulgaris, collaborative work of psychiatrist and dermatologist in throwing light into this relatively recent area for research which has direct treatment implications.

The major limitation for the study were absence of a control group, larger sample size, longitudinal follow up of the study sample both before and after treatment, the use of a generic QOL instrument which makes comparison with other disease group easier.

Future work in the area needs to use a control group, bigger sample size and longitudinal follow up of acne vulgaris patients.

CONCLUSIONS

Some conclusions can be drawn from this study. First, patients with acne vulgaris has clearly depicted higher psychiatric morbidity and positive correlation between GHQ scores and perceived severity. Hence, treatment needs to be addressed both the primary skin condition and psychiatric manifestations. Second, acne negatively affects quality of life. We could not find any relationship between acne severity, anxiety, depression and disease specific quality of life in patients with acne vulgaris. Third, patient's perception of the disease has emerged as an important factor which is associated with increase in anxiety and depressive symptoms.

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