

Original Article

Association of Depression and Anxiety in Acne Vulgaris Patients

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Revised : December 03, 2015 Accepted : December 10, 2015

Abstract

Introduction: Acne vulgaris is a chronic, inflammatory disease of pilosebaceous follicle characterized by comedons, papules, pustules and nodules. Many psychological problems associated with acne have been reported. Among them depression and anxiety are more common psychiatric problems.

Methods: This was a cross sectional study carried out to diagnose depression and anxiety among patients with facial acne at North Bengal Medical College, Hospital during the period of 6 months study enrolling 110 acne patients who were selected by nonrandom purposive sampling.

Results: In this study, General Health Questionnaire (GHQ) positive case was 54 (49%). Among them Major Depressive Disorder (MDD) was 21(19.1%) and Generalized Anxiety Disorder (GAD) was 18 (16.4%). Total female was 75 (68.2%) and male 35 (31.8%). Mean age of female and male were 16.4 years and 19.2 years respectively. Married person were 42 (38.2%) and unmarried were 68 (61.8%) Middle class families were 37 (33.6%) and lower classes were 73(66.4%). Among social background urban were 49 (44.5%) and rural were 61 (55.5%). In severity of acne, mild were 13 (11.8%), moderate were 40 (36.3%) and severe were 57 (51.9%) cases.

Conclusion: Acne vulgaris may cause depression and anxiety. So physicians should pay attention to rule out psychiatric problems in patients with acne vulgaris.

Key words: Acne vulgaris, Depression, Anxiety

North Bengal Med. Coll.J. 2016; 2 (1) : 44-49

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Introduction

As a sense organ, the skin is the site of events and processes crucial to the way we think about, feel about, and interact with one another. To have normal skin seems to be a necessary prerequisite both in terms of an individual's physical and mental health, and also sexual attractiveness.¹ Acne vulgaris is a chronic inflammatory disease of pilosebaceous follicles characterized by comedones, papules, pustules and nodules. It is a common dermatological disorder in individuals aged 13-35 years which mostly involves face and trunk and lesions may vary in number during the natural course of the disease.² Acne vulgaris develops earlier in females than in males, which may reflect the earlier onset of puberty in females. The most severe form of acne vulgaris occur more frequently in males but this tends to be more persistent in females.³ In Bangladesh, the prevalence of acne is 6.25%.⁴ Adolescent are more affected and the incidence and severity of acne peaks at 14-17 years in 40% girls and at 35% in boys aged 16-19 years.⁵ Many psychological problems associated with acne have been reported to date. These include decrease in self-esteem, impaired overall perception of his/her well-being and self-image, embarrassment, fear of rejection, social withdrawal, anger, restrictions in lifestyle, problematic family relations, excessive mental engagement in his/her

acne, depression, and anxiety.¹ Assessing psychiatric morbidity can help patients providing better services by acknowledging their real needs and interfering with treatment decision. There are effective treatments for acne and administration of these therapies can cause an improvement in psychological health. To our knowledge, a very few studies had conducted regarding psychiatric morbidities of acne patients in our country. The aim of our study is to assess psychiatric morbidity in patients with acne vulgaris.

Materials and Methods

This was a descriptive cross sectional study; sampling technique was convenient and carried out in the Department of Psychiatry in collaboration with the Department of Dermatology and Venereology, North Bengal Medical College Hospital (NBMCH), Sirajganj from June 2015 to November 2015. Patients were diagnosed as acne vulgaris by consultant dermatologist of NBMCH.

A structured questionnaire was prepared to determine socio-demographic characteristics such as age, sex, marital status, economic status, social background etc. At first all 110 patients were screened by General Health Questionnaire (GHQ). Those who scored 15 or more out of 36 were further evaluated by Diagnostic and Statistical Manual for Mental disorder (DSM-5) criteria for

depression and anxiety. Both male and female patients aged over 12 years and have diagnosis of acne vulgaris with no family history of psychiatric disorder were included in the study. An informed written consent was taken from each and every patient by using consent form. The research was conducted in full accord with ethical principle.

Data collection tools and instruments:

1. Structured questionnaire for socio-demographic and relevant information
2. General Health Questionnaire - 12 (GHQ-12) Bengali versions.
3. Mental State examination (MSE) sheet
4. Diagnostic and statistical manual for mental disorders (DSM-5) criteria.

Measurement of severity of acne vulgaris

In this study all the manifestations of acne from comedones to nodules, not only by its presence but also number was recorded. The acne severity was then graded. The number of inflammatory lesions (red papules and pustules) and non-inflammatory lesions (comedones) on the face were counted at the initiation of the study. Lesion counting involved recording the number of each type of acne lesion and overall severity was determined. Lesion counting categorized acne into four groups based on the number

of inflammatory lesion on face and/or other location.⁶

- Mild: lesion counts 0-5 inflammatory lesions.
- Moderate: Between 6 and 20 inflammatory lesions.
- Severe: Between 21 and 50 inflammatory lesions.
- Very severe: More than 50 inflammatory lesions.

A GHQ-12 Bengali version sheet was supplied to all the selected subjects and advised to fill up the questionnaire. After that, those patients got 15 points or above were further evaluated by MSE and DSM-5 criteria for the diagnosis of depression and anxiety. All data were recorded for analysis.

Results

In this study, we observed 31.8% male and 68.2% female patients with facial acne vulgaris, in which about 61.8% patients were unmarried and 38.2% were married (Figure 1).

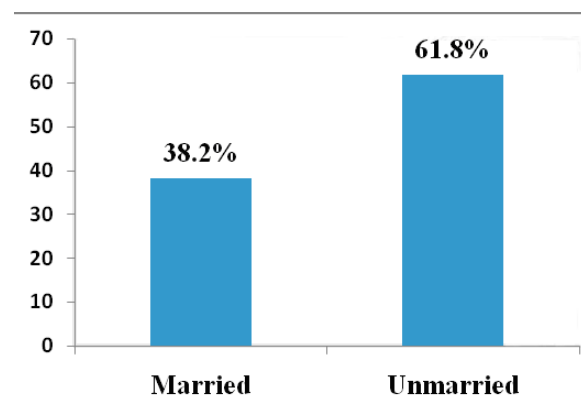


Figure 1: Distribution of Respondents by their Marital Status

The socio-economic status of acne patients were 73 (66.4%) in lower class followed by 37 (33.6%) in middle class group (Table 1).

Table I: Distribution of Acne patients by their Socioeconomic Status

Socioeconomic Status	Frequency (%)
Middle Class	33.6
Lower Class	66.4

The severity of acne vulgaris was categorized as mild 13 (11.8%), moderate 40 (36.3%) and severe 57 (51.9%) group (Figure 2).

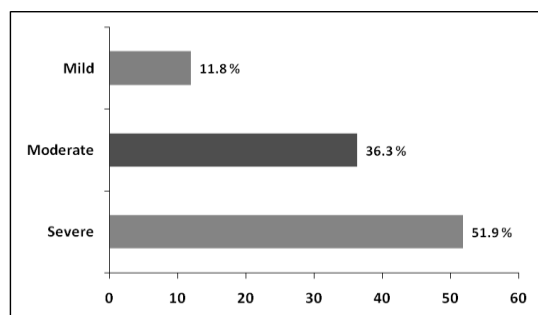


Figure 2: Distribution of the Acne Patients by Severity of Acne

The Patients were hailed from rural area were 61(55.5%) and from urban area were 49 (45.5%) (Table II).

Table II : Distribution of Acne Patients by their Social Background

Social background	Frequency (%)
Urban	44.5
Rural	55.5

The association of co-morbid depression and anxiety among the acne patients were 21 (19.1%) and 18 (16.4%) respectively (Table III).

Table III: Distribution of Acne Patients by Depression and Anxiety

Co morbid Psychiatric disorder	Frequency (%)
Major Depressive Disorder (MDD)	19.1
Generalized anxiety Disorder (GAD)	16.4

Discussion

Acne vulgaris is the most common dermatological condition encountered in adolescents. It affects almost 85% people of 12–24 years of age group. It commonly affects young people during the time when they are undergoing maximum psychological, social and physical changes.⁷ Acne commonly involves the face. Facial appearance represents important aspects of one’s perception of body image. Therefore, it is not surprising that a susceptible individual with facial acne may develop significant psychosocial disability. Emotional stress can also exacerbate acne, and patients with acne may develop psychiatric problems as a consequence of their problem.⁷ Even than mild acne can pose a significant problem for some patients, diminishing their quality of life and in some

cases their social functioning.⁸ Skin disease can have a major impact on one's quality of life. Overall quality of life is an all-inclusive concept incorporating all factors that impact upon an individual life. The concept can be divided into several components, including psychological, social and physical domains. The impact of acne on a particular patient is not always easy to judge clinically. It was found that both women and men find the effects of acne on appearance to be the most bothersome aspect of their disease and the negative effects of acne occur in both older and younger patients.

In this study the screening of psychiatric morbidity among facial acne vulgaris patients were done by using GHQ-12. GHQ-12 screening of psychiatric morbidity was positive in 54 (49%) respondents among the patients of facial acne vulgaris. The finding of the present study is in agreement with many similar studies.^{8, 9} In this study there were 35 (31.8%) male and 75 (68.2%) female among the patients of facial acne vulgaris indicating female preponderance of acne vulgaris. This result was in agreement with another study.¹⁰ But one study reported slight male preponderance of acne vulgaris.¹¹ The mean age of female was 16.4 years whereas mean age of male was 19.2 years.

The result of the present study may be due to young female were more conscious about their looking and there by visited more at skin outdoor and chronic skin lesions

produce disfigurement and more chance for economic burden. Regarding the marital status, majority patients with facial acne vulgaris were unmarried 68 (61.8%). These findings were consistent with another similar study.¹¹ Most of the patients with facial acne vulgaris were in young adult. So percentage of unmarried persons were increased. In the present study total number of MDD was 19.1% and GAD was 16.4%. Other studies have also reported frequencies of general psychiatric co-morbidity in acne patients ranging from 23% to 46%.¹²⁻¹⁵

Conclusion

Despite a number of limitations such as purposefully selected institution and relatively small sample size, this study has provided a baseline information on the proportion of depression and anxiety among acne patients. A high proportion of depression and anxiety was found in patients with acne vulgaris. So it is necessary for the physicians to pay attention for co morbid depression and anxiety during treating of acne patients.

Contribution of the Authors

First and second authors were directly involved in research for this study. Others helped in data collection and statistical analysis.

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