Full Length Research Article

ASSESSMENT OF ANXIETY SYMPTOMS IN ADULTS WITH ACNE VULGARIS

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ABSTRACT

Background: Acne vulgaris has been associated with psychiatric and psychological problems and it is one of the leading causes of anxiety in adolescents and adults.
Aim of this study: To assess the link between anxiety symptoms and patients with acne vulgaris in relation to the severity of the disease, its localization and socio-demographic data.
Material and Methods: A transverse cross-sectional study was undertaken from January 2010 to September 2011. In it participated 360 patients with acne vulgaris and 289 healthy individuals, of both sexes, 18-35 years old. For the assessment of the anxiety symptoms DASS questionnaire were used.
Results: Patients with acne had higher level of anxiety symptoms than did controls (P<0.05). The symptoms of anxiety in patient group were not significant in relation to the severity of the disease, its localization, gender, employment and education (P>0.05). The symptoms of anxiety were significantly related to the marital status (single status) and patients age (26-35 years old) (P<0.05).
Conclusion: There is a strong association of anxiety with acne vulgaris, but symptoms of anxiety are not affected by the the clinical features of the disease.

INTRODUCTION

Acne vulgaris, more commonly known simply as acne, affects at least 85 per cent of adolescents and young adults (Hanna *et al.*, 2003). Acne affects 25 % of adult men and 50 % of adult women at some point in their adult lives. People can have a display or recurrent acne in their twenties, thirties, forties or later (Kern, 2008). Acne has been associated with psychiatric and psychological processes more than most other dermatological diseases. Distribution of acne lesions is limited to areas rich in fatty glands including the face, back, chest and arms. Unlike other dermatological diseases, which may be limited to the covered parts of the body, acne is visible. The influence of acne on body image is believed to be the main factor associated with psychological morbidity. Acne is one of the leading causes of anxiety in adolescents and adults. Adult patients with acne report emotional effects related to their skin condition, which are similar in size to the reports made by patients with psoriasis, which is traditionally

seen as a skin condition that causes significant disability (Lasek and Chren, 1998). This may be due to prolonged illness, poor response to treatment, or social implications of acne in adult population Knowledge of the relationships between skin diseases and mental health is growing. Some studies have reported increased anxiety in patients with acne and positive relationship between the gravity of anxiety and the severity of acne vulgaris (Wu *et al.*, 1988; Cotterill and Cunliffe, 1997; Pearl *et al.*, 1998; Grahame *et al.*, 2002). However in some other studies there is no sufficient evidence of any correlation between acne and anxiety or gravity of anxiety is not associated with clinical severity of acne (Cotterill and Cunliffe, 1997; Grahame *et al.*, 2002; Yazici *et al.*, 2004). Some studies have reported that anxiety is not related to age or sex, but few have reported that it is more pronounced in women (Niemeier *et al.*, 1998; Kellett and Gawkrodger, 1999). Starting from confirmed studies in patients with acne, we decided to measure the anxiety symptoms in patients suffering with this pathology by comparing them with a healthy population.

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Aim of the study: The aim of the study is to assess the correlation between anxiety symptoms and patients with acne vulgaris, in relation to the severity of the disease, its localization and socio-demographic data such as age, gender, employment, education and marital status.

MATERIALS AND METHODS

To achieve our objectives, a transverse cross-sectional study was undertaken from January 2010 - September 2011. 360 patients with acne vulgaris and 289 healthy sample (no acne), 18-35 years old; mean (± SD) 21.5 ±2.6, participated in this study.

For the patient group, the inclusion criteria in the study were diagnosis of acnes that included the presence of open and closed comedones, papule, pustules, pseudocists, and all individuals between 18 and 35 years old, who gave their consent to take part in this study.

Exclusion criteria: patients or healthy individuals with other skin diseases, with history of a known mental disorder, patients with somatic diseases that affects their mental status; users of drugs or alcohol, patients that have used local or systemic medications that predispose to acne, one month before being referred for acne.

DASS 42 questionnaire was used to assess the anxiety symptoms in both groups (patient group and the control group) (Lovibond and Lovibond., 1995). This questionnaire contains 14 questions for the assessment of anxiety, 14 questions for the assessment of stress and 14 questions for the assessment of depression. In this study we evaluated only anxiety symptoms. The degree of anxiety assesses symptoms such as dry mouth, breathing difficulties, shaking of hands or feet, sweating in the absence of temperature or physical activity, difficulty in swallowing, fear and panic in different situations or feelings of fear without any reasons. Scoring is determined by the extent of symptoms of anxiety level: normal (0-7), mild (8-9), moderate (10-14), severe (15-19) and extremely severe (over 20). Patients were grouped according to the severity of acne vulgaris (mild, moderate, severe) according to the localization of acne (in the face, chest and back, face, chest and back), according to age (age 18-21, 22-25 and 26-35 years); gender (male, female); education (high, medium, low); employment (employed, unemployed, student) and civil status (married, engaged, separated, single). Data processing was done using SPSS version 15:00. In statistical analysis, Chi-square test was used to compare proportional data (between patients group and control group) and logistic regression to see the relationship between variables in the two groups. P-values below 0.05 were considered statistically significant.

RESULTS

In our study, there were 360 patients with acne vulgaris, of which 210 had mild form (58.33%), 113 with moderate form (31.38%) and 37 (27.10%) with severe form. According to acne localization: 220 patients (61.11%) had acne in the face, 42 (11.6%) in the chest and back, 98 (27.22%) in the face, chest, back; by age: 184 (51.11%) of patients were 18-21 years old, 105 (29.16%) of patients were 22-25 years old; 71 (19.72%) of patients were 26-35 years old; by gender: 252

(70%) of patients were women, 108 (29.8%) were males; by employment: 22 (62%) were students, 54 (15.5%) were employed, 81 (22.4%) were unemployed; by level of education: 274 (76.5%) of patients were with higher education, 83 (23.2%) were with medium education, 3% with low education; by civil status: 281 (78.2%) were single, 60 (16.6%) were engaged, 17 (4.7%) were married and 2 (6%) were divorced. The level of anxiety symptoms in patients proved to be very significant (p <0.05) compared with the control group. (Chi-square test). From the questionnaire the results on symptoms of anxiety on patient group were: 141 (39%) patients with level 0 (normal), 48 (13.3%) with mild anxiety, 93 (25.75%) with moderate anxiety, 78 (22.1%) with severity anxiety. Most patients had a moderate level of anxiety symptoms. Level of anxiety symptoms was more severe in the severe clinical forms of acne, but it did not result significant in relation to the severity of the disease (P> 0.05). The level of anxiety symptoms were not significantly related to acne localization, age, gender, education and marital status (P> 0.05). The symptoms of anxiety were significantly related to the marital status (single status) and patients age (26-35 years old) (P <0.05).

DISCUSSION

Correlation between symptoms of anxiety and acne vulgaris appears different in different studies. Some studies have shown an increase of anxiety symptoms in patients with acne and a positive correlation between the severity of these symptoms and severity of acne (Wu *el al.*, 1988, Lasek and Chren, 1998; Pearl *et al.,* 1998, Yazici *et al.*, 2004). But in some other studies no correlation is observed between symptoms of anxiety and acne and between the severity of these symptoms and the severity of the disease (Cotterill and Cunliffe, 1997; Grahame *et al*., 2002; Yazici *et al.*, 2004). In our study, the level of anxiety symptoms in patients with acne compared with the control group was significant (p <0.05). The severity of acne in the patient group resulted in no significant relationship to the symptoms of anxiety, despite the fact that their level was higher in clinical severe forms. Thus, adults with a mild form of acne can be just as anxious as those with the severe form of acne vulgaris. This means that the severity of the disease does not play a significant role when it comes to predicting the level of anxiety symptoms in patients with acne vulgaris.

In different study, when acne localises primarily on the face, it has a greater effect on psychological functioning. When it is on the back or the chest, because it can be covered with clothing, it causes less distress. It was reported that after recovery, patients that had acne localized on the face experienced significant positive changes in anxiety, while patients with acne localized on the body experienced less degree of change in relation with these symptoms (Rubinow *et al.*, 1987; Kellett and Gawkrodger, 1999). In our study most of the patients had facial acne localization, however, there wasn't a significant relationship between acne localization and symptoms of anxiety. In our study there was no significant correlation between the symptoms of anxiety and gender, marital status, education and employment in the group of patients. The symptoms of anxiety were significantly related to the marital status (single status) and patients age. Some studies report that anxiety is not related to age and gender (Wu

et al., 1988; Grahame *et al*., 2002; Tadinac *et al.*, 2006), but several other studies report that is evident in women (Niemeier *et al.*, 1998; Kellett and Gawkrodger,1999; Aktan *et al.*, 2000).

Conclusions

Our study showed that acne vulgaris can be a source of significant of anxiety symptoms. Anxiety sinjificantly dominated to the group of patients when compared to the control group. Symptoms of anxiety are not affected by the severity of the disease, which means that we cannot use the clinical features of the disease as a basis to assess the psychological state of patients, when it comes to symptoms of anxiety.

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