

## PSYCHOSOMATIC ASPECTS OF ACNE

***Mirvasidov Mirkamol Mukhtar ugli***

*Assistant of the department of dermatovenerology and cosmetology  
Tashkent Medical Academy*

**Abstract.** In today's modern cosmetology, acne is an important problem. This article discusses the modern methodology of acne treatment.

**Keywords:** acne, comorbid mental disorders, anxiety, depression, temper, psychological types of reaction to disease

Foreign authors classify acne as a group of dermatoses that cause somatopsychic resonance due to real or perceived aesthetic discomfort. [1]. In this case, the skin problem in the case of psychological fixation on one's illness is a psychotraumatic factor [2]. A negative impact has been found acne on self-esteem and self-perception of patients, assessment state of one's own health, interpersonal interactions and social functions [2-5]. Against the background of acne, avoidance behavior, social phobias, anxiety, depression [4-6]. Acne can provoke sensitive reactions and hypochondriacal disorders, leading to the formation of suicidal thoughts and attempts [4, 5, 7]. All mental disorders that develop against the background of acne, are the causes of maladaptation in social, professional and family life, and are capable of disrupting compliance with the treatment carried out for skin pathology therapy [8, 9]. The formation of mental disorders secondary to somatic pathology depends on a number of factors social and demographic factors, characteristics course of the underlying disease, premorbid properties personality. In relation to acne, this issue has not been studied enough. Enough. In terms of the premorbid background of personality, the influence of accentuations is of scientific research interest. character on the development of secondary mental disorders. Accentuation is a vivid expression of a personality trait is considered as an extreme variant of the norm, since adaptation and a stable social position are preserved [10, 11]. According to the classification of K. Leonhard, 10 types are distinguished accentuations: demonstrative, pedantic, stuck, excitable, hyperthymic, dysthymic, anxious-fearful, cyclothymic, affectively exalted, emotive [12]. Against the background of accentuation it is possible an increased risk of developing a mental disorder, especially in cases where a specific (fitting as a "key to a lock"), unfavorable for this type of psychotraumatic situation. Thus, the personality type determines reactions to psychotraumatic events [11]. K. Bonhoeffer argued that the symptoms of mental diseases do not reflect its cause, but the characteristics of the patient's response [11]. In 1977, A.G. Luria proposed the term "internal picture of the disease", reflecting the patient's attitude towards his illness, which plays a significant role among psychological and social influences on the

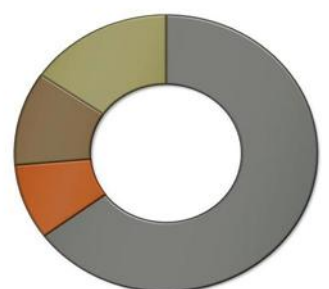
patient himself [13, 14]. According to the classification of A.E. Lichko and N.Ya. Ivanov, there are 12 types of response to disease, which can be combined into 3 blocks. The first block includes harmonious, ergopathic and anosognosic types. Within the framework the first block maintains psychological adaptation patient. The second and third blocks are characterized by the formation of psychological maladaptation with a predominantly intra- or interpsychic focus.

**The structure of mental disorders in the study group.** response to the disease accordingly. The second block includes anxious, hypochondriacal, neurasthenic, melancholic, apathetic types of attitude; the third is sensitive, egocentric, dysphoric and paranoid [15]. Internal picture of the disease as the main complex secondary symptoms, psychological in nature diseases, in some cases can complicate the course of the disease, hinder the success of treatment measures, and slow down the rehabilitation process. Secondary the symptom complex itself can become a source persistent mental maladaptation of the patient [14]. A.B. Smulevich asserts: "under the combined influence of a number of unfavorable factors, the reaction the disease can acquire such a pronounced character, that its relief in the first stages of therapy seems to be no less an important task than direct treatment of somatic suffering" (cited from [13]). The aim of this study is to investigate comorbid acne mental disorders and factors that determine the formation of the latter. The presented work revealed the frequency of mental disorders of the anxiety-depressive spectrum Among acne patients, initial indicators of quality of life were determined, and an analysis of psychosomatic relationships in the structure of the pathology under study was conducted.

**Materials and methods.** Clinical and statistical analysis of acne patients carried out on the basis of the Central City Hospital (Central City Hospital) No. 2 named after A.A. Mislavsky, Central City Hospital No. 3, Dermatovenereology Department No. 2 (Ekaterinburg). Inclusion criteria: diagnosis of acne, male and female subjects aged 16–45 years. Exclusion criteria: presence of chronic diseases. in the stage of decompensation or incomplete remission, severe infectious processes in the anamnesis (including including HIV, tuberculosis, hepatitis B and C), the presence of mental disorders of a psychotic level, abuse of alcohol and drugs by patients and psychoactive substances, for women - the period of pregnancy and lactation. Table 1 Clinical characteristics of mental disorders degrees of severity Mental disorder Anxiety Depression Lightweight stump 0 4 Moderate degree number of patients 22 Heavy degree 0 5 15 Research methods: clinical examination with assessment severity of acne according to the classification of G. Plewig, M. Kligman, modified by the Russian Society of Acne (2004) [16], determination of quality of life indicators (DLQI), psychosocial impact of acne (APSEA) [17], clinical psychodiagnostic examination, testing according to scales anxiety (ZARS) [18], depression (CES-D) [19], definition the presence and type of character accentuation (K. Leonhard test)

[12], psychological diagnostics of the type of attitude towards the disease (TOBOL test) [15]. Statistical processing of the results was carried out using the Mann-Whitney U test,  $\chi^2$  -criterion. In each the average value is calculated for a group of homogeneous data and standard deviation. The applied package was used Microsoft Excel programs.

**Results and discussion.** The study involved 91 outpatients with acne (33 men and 58 women) aged 16 to 35 years (mean age  $22.55 \pm 3.95$  years; in men  $21.39 \pm 3.55$  years, in women  $23.21 \pm 4.04$  years). The ratio of men to women is 1:1.75. Grade I acne severity was observed in 41 (45%) patients (4 men, 37 women), grade II - in 42 (46.2%) patients (21 men, 21 women), grade III - in 8 (8.8%) men.



- Отсутствие симптомов психических расстройств,  $n=59$  (64,8%)
- Клинически выраженная тревога,  $n=8$  (8,8%)
- Клинически выраженная депрессия,  $n=10$  (11%)
- Тревожно-депрессивное расстройство,  $n=15$  (15,4%)

Table 1			
Clinical characteristics of mental disorders			
degrees of severity			
Mental disorder	Lightweight stump	Moderate degree	Heavy degree
	number of patients		
Anxiety	0	22	0
Depression	4	5	15

Table 2  
Life quality indicators (DLQI) in the study group, taking into account gender factor and the presence of mental disorders

Subject group	Women	Men	Total
General sample	8.05 ± 5.58*	5.42 ± 4.68*	7.10 ± 5.40
Patients without mental disorders	6.48 ± 4.60*	5.19 ± 3.55	5.92 ± 4.60*
Patients with mental disorders	10.12 ± 6.16*	6.29 ± 7.93*	9.28 ± 6.64*

\* —  $p < 0,005$ .

Table 3  
APSEA acne psychosocial impact scores by gender and mental health conditions (mean ± standard deviation)

Subject group	Women	Men	Total
Total sample	64.24 ± 23.32*	49.30 ± 20.02*	58.82 ± 23.22
Patients without mental disorders	54.18 ± 20.50*	44.39 ± 16.39*	49.86 ± 19.28*
Patients with mental disorders	77.52 ± 20.23*	67.57 ± 22.89*	75.34 ± 20.87*

\* —  $p < 0,005$ .

Table 4  
Distribution of patients by acne severity

Degree gravity	General sample		Patients			
			without mental sci- disorders		with mental disorders	
	abs.	%	abs.	%	abs.	%
I	41	45	25	42.4	16	50
II	42	46.2	28	47.5	14	43.8
III	8	8.8	6	10.1	2	6.2

Table 5  
Distribution of patients by presence/absence character accentuations

Accentuation character	Patients			
	without mental disorders		with mental disorders	
	abs.	%	abs.	%
Absence	22	42.3	9	31
Availability	30	57.7	20	69

In 32 (35.2%) patients, mental disorders of the anxiety depressive cluster were diagnosed, in 22 (24.2%) - clinically expressed anxiety, in 24 (26.4%) — depression. The structure of mental disorders in the surveyed group is presented in the figure. Anxiety-depressive disorders were detected in 25 (43.1%) women and in 7 (21.2%) men, which corresponds to statistically significant differences ( $p < 0.005$ ). Assessment of the severity of mental disorders was carried out on the basis of the results clinical psychodiagnostic examination, testing on anxiety and depression scales (Table 1). Average value of the quality of life indicator on the scale DLQI in the general group was  $7.10 \pm 5.40$ , in the group of patients without mental disorders -  $5.92 \pm 4.60$ , with mental disorders -  $9.28 \pm 6.64$ . Gender differences in the quality

of life indicator taking into account anxiety-depressive disorders are presented in Table 2. When analyzing the obtained data, statistically significant differences in the indicator in groups of patients of both sexes with and without mental disorders, as well as among women compared to men regardless of the factor presence of mental disorders ( $p < 0.005$ ). However, among men, no statistically significant correlation was found. lation of the quality of life indicator with the presence of mental disorders ( $p > 0.005$ ). Assessment of the psychosocial impact of acne using a scale APSEA is presented in Table 3. The average value of the indicator in the general group was  $58.82 \pm 23.22$ , in the group patients without mental disorders -  $49.86 \pm 19.28$ , s mental disorders -  $75.34 \pm 20.87$ . Analysis of the obtained data revealed the presence of statistically significant correlation between the APSEA score and gender factor, presence or absence of mental disorders ( $p < 0.005$ ). % 31 69 The severity of the skin process in the groups of subjects with and without mental disorders is presented in Table 4. Statistically significant correlation between the severity of acne and anxiety depressive disorders no cluster was identified ( $p > 0.005$ ). The premorbid background of the personality of patients with acne was considered in the aspect of character accentuations. The presence or absence of accentuated features was examined. 81 patients, including 52 patients without signs of mental disorders and 29 with anxiety-depressive spectrum disorders. In the group of mentally healthy subjects, accentuations were detected in 30 (57.7%) patients, in the group of patients with anxiety and depression - in 20 (69%), which corresponds to statistically significant differences ( $p < 0.005$ ) (Table 5). Psychological diagnostics of attitude towards illness was conducted on 40 patients (30 patients without signs of mental disorders and 10 with anxiety-depressive spectrum disorders). The results of the study on the subject types of personal response are presented in Table 6. A statistically significant correlation was found between the presence of mental disorders and pathological types response to the disease, accompanied by psychological maladjustment of patients ( $p < 0.005$ ). All patients were prescribed treatment in accordance with clinical recommendations of the Russian Society of Ophthalmologists for acne therapy (systemic doxycycline, external baziron gel AC, gel klenzit S, gel klenzit in accordance with the regulated. Patients with identified mental disorders were referred for consultation to a psychiatrist. Individuals diagnosed with anxiety ( $n = 8$ ) were prescribed mebicar (Adaptol) at a dosage of 0.5 g 2 times a day for 2 weeks. In the presence of depression in in accordance with the recommendations of the psychiatrist, patients ( $n = 10$ ) received fluoxetine (Prozac) at a dose of 0.2 g per day within 2 weeks. In case of combination of anxiety and depression ( $n = 14$ ) — mebicar (Adaptol) at a dose of 0.5 g 2 times a day in within 2 weeks The observation period for patients was 8 weeks. 2 weeks after the start of psychotropic therapy, a repeat test was performed clinical psychodiagnostic examination and testing on the anxiety scale (ZARS) and depression scale (CES-D). Reduction of anxiety was observed in 100%



of cases (22 patients), depression - in 100% of cases (10 patients) of fluoxetine use, in 71.4% of cases (10 patients) of mebicar use. Side effects due to taking psychotropic drugs were not detected. After 8 weeks from the start of treatment, all patients underwent an assessment of the dermatological status. All patients showed significant improvement of the skin process. Dermatological treatment was continued in accordance with clinical recommendations of the Russian Children's Fund.

**Conclusions** 1. The prevalence of mental disorders of the anxiety-depressive spectrum among outpatients diagnosed with acne is 35.2%, anxiety - 24.2%, depression - 26.2%, a combination of anxiety and depression - 43.74% 2. Quality of life is significantly lower among patients acne with anxiety-depressive disorders than in the category of persons suffering from acne, but without identified mental symptoms. The association of life quality indicators (DLQI) and the psychosocial impact of acne (APSEA) with mental disorders reflects the relationship of the skin process with the development of anxiety and depression. 3. Females are more susceptible development of mental disorders. The influence of the severity of the skin process on the development of anxiety-depressive No disorders were identified. 4. The development of mental disorders is interrelated with individual personality traits. The presence of accentuation can be considered as a premorbid background, risk factor for the development of anxiety and depression. In addition Moreover, mental disorders are interconnected with pathological types of personality reactions to illness, which are secondary psychological symptom complexes and capable of independently leading to social maladjustment. 5. Use of psychotropic drugs - atypical tranquilizer (mebicar), antidepressant from group of selective serotonin reuptake inhibitors (fluoxetine) - leads to the relief of comorbid mental disorders of the anxiety-depressive spectrum

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