



RATIONALE FOR THE PHARMACOLOGICAL CORRECTION OF VEGETATIVE AND PSYCHO-EMOTIONAL CHARACTERISTICS IN PATIENTS WITH ROSACEA

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ABSTRACT

Objectives: The study investigates personal characteristics, assessment of life quality and anxiety disorders in patients with different subtypes of rosacea. **Material and methods:** 80 patients aged 25 to 73 with different subtypes of rosacea were interviewed with the questionnaires Dermatology "Life Quality", SKINDEX-29, The Zung Self-Rating Anxiety Scale and The Hamilton Anxiety Rating Scale. **Results:** Rosacea reduces patients' quality of life and induces the emergence of anxiety disorders.

KEYWORDS: rosacea, Dermatology Life Quality Index, SKINDEX-29, anxiety disorders.

INTRODUCTION

One of the features of chronic skin diseases is the interrelation between emotional, psychological and physical factors affecting both the development of disease and the effectiveness of its treatment. In recent years the role of psycho-neuro-immune interactions in the development of skin diseases including rosacea has been actively investigated. The pathophysiological mechanisms of origin and development of rosacea are still the subject of scientific debate. Numerous studies have shown the participation of a large number of immune cells, blood cells, proteases, inflammatory mediators and antimicrobial peptides consistently leading to hypervascularization, inflammation and hyperplasia. Rosacea is a chronic inflammatory skin disease that affects

mainly the central part of the face (cheeks, chin, nose and central part of the forehead) and is characterized by phasic flow. According to the literature, the pathogenetic factors such as changes in the immune response secondary to an increased amount of antimicrobial peptides (AMP), activation of vitamin forming function of keratinocytes after prolonged exposure to UV radiation, vascular disorders, and endocrine system pathology play a potential role in the development of the disease.^[1,2,3] Life quality of rosacea patients is influenced by a variety of factors such as clinical manifestations, disease duration, subjective symptoms, psycho-emotional state, and personality characteristics of patients. Life quality indicators form a clear view of whether a patient believes their life is productive and what is the extent of their satisfaction. Finding the relationship between personality characteristics and life quality of patients with chronic skin diseases including rosacea will allow to carry out preventive measures, treatment and rehabilitation more thoroughly, as well as to improve doctor-patient communication. Often, in addition to the time dependence between the effect of emotional stress and cutaneous manifestations of disease, there is a clear correlation with the severity, prevalence, activity, duration of the disease and intensity of the psycho-emotional disorders.^[4] Analysis of complex psychosomatic relations will certainly improve the efficiency of treatment of all subtypes of rosacea.

OBJECTIVES

The study examines a group of patients with different clinical subtypes of rosacea, indicators of their life quality and anxiety being assessed.

MATERIAL AND METHODS

The study involved 80 participants with different subtypes of rosacea. Age surveyed ranged from 25 to 73 years. According to the clinical criteria of National Rosacea Society analysing the distribution of patients by subtypes, 21 patients (26,3%) are estimated to have subtype 1 rosacea, 50 (62,5%) – subtype 2, and subtype 3 is observed in 9 (11,2%) patients. Patients were distributed by disease severity, thus 41 (51,3%) patients were estimated to have an average degree of severity; easy severity was recorded in 22 (27,5%) patients, and severe degree - in 17 (21,2%) patients. Life quality assessment was performed with the DLQI and SKINDEX-29. The Zung Self-Rating Anxiety Scale and The Hamilton Anxiety Rating Scale were used to assess the severity of anxiety. The control group included 20 healthy volunteers.

RESULTS

According to Dermatology Life Quality Index moderate rosacea impact on life was revealed in 49 (61,3%) of respondents. 22 patients (27,5%) believed that rosacea has a very strong impact on their lives. Slight rosacea impact was revealed in 7 (8,7%) patients. Two patients (2,5%) estimated an extremely strong degree of dermatitis impact on their lives. In a total evaluation of the responses of patients with rosacea, it was found that life quality was reduced by subjective sensations in 98,7%, in 93,7% of cases the dermatosis affected the performance, it had an impact on leisure activities in 83,8%. Questions associated with the treatment caused concern in 65 (81,2%) of respondents. Just over half of respondents (57,5%) were forced in any way to change their daily activities. And on the interpersonal relationships rosacea had less effect compared with other aspects of patients' lives. Only 39 (48,8%) patients with rosacea limited their relationships with others.

A positive correlation ($r = 0,32$; $p > 0,95$) between DLQI and the degree of severity of rosacea has been revealed (Table 1).

Table 1. Score DLQI depending on the severity of rosacea (M±s), in points

Index	The degree of severity			Control Group, n=20
	Mild, n=22	Moderate, n=41	Heavy severity, n=17	
DLQI	8,09±3,24*	9,78±3,93*	10,94±3,94*	0,05±0,22

* - indicators had significant differences with values in patients with first, second and third subtypes compared to the control group according to Student's t-test ($p > 0,95$).

Emotional state of a patient and his/her psychological response to the disease, manifested by some anxiety and depression most affected the SKINDEKS-29 indicators of life quality. In the analysis of the values obtained in the study of Dermatology Life Quality Index and SKINDEKS-29 a moderate decrease in the life quality of patients with different subtypes of rosacea was confirmed. A strong positive correlation between DLQI and SKINDEKS-29 values was revealed ($r = 0,81$, $p > 0,999$) (Figure 1).

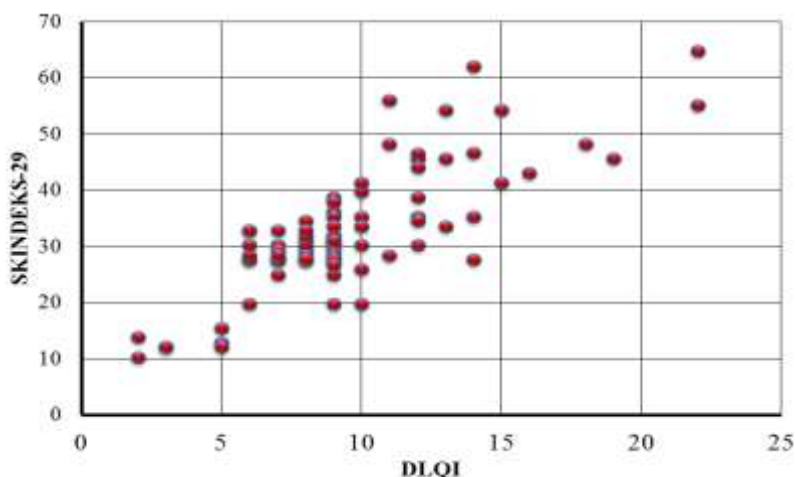


Figure 1: The dependence SKINDEX-29 scale from scoring DLQI in patients with rosacea.

Anxiety disorders in patients with rosacea were assessed with The Zung Self-Rating Anxiety Scale consisting of 20 points, the score being determined by each point according to the four gradations of symptom severity degree. The maximum total score was 80. According to the Zung scale 26 (32,5%) patients had a high level of anxiety corresponding to the range of scores from 61 to 80. Mostly these were patients with a second subtype of rosacea characterized by moderate and severe dermatosis severity. Middle and low levels of anxiety were revealed in 35 (43,7%) and 19 (23,8%) patients, respectively, with different clinical forms of dermatosis (Figure 2).

Also, the severity of anxiety symptoms was investigated with the Hamilton scale in patients with different clinical forms of rosacea. Interpreting the scale the score of 17 or less signified no anxiety in 19 (23,8%) patients with rosacea, 18 – 24 points indicated an average severity of anxiety disorder in 35 (43,7%), and over 25 points indicated severe anxiety in 26 (32,5%) patients (Figure 3).

Direct proportion with the severity degree of dermatosis has been detected on The Zung Self-Rating Anxiety Scale and The Hamilton Anxiety Rating Scale.

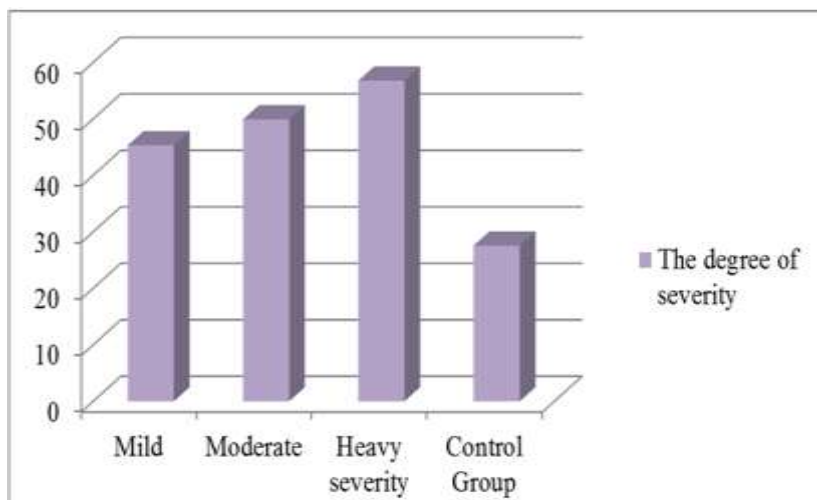


Figure 2: The values anxiety scale assessment The Zung Self-Rating Anxiety Scale depending on the severity of rosacea in comparison with the control group (mean value in points).

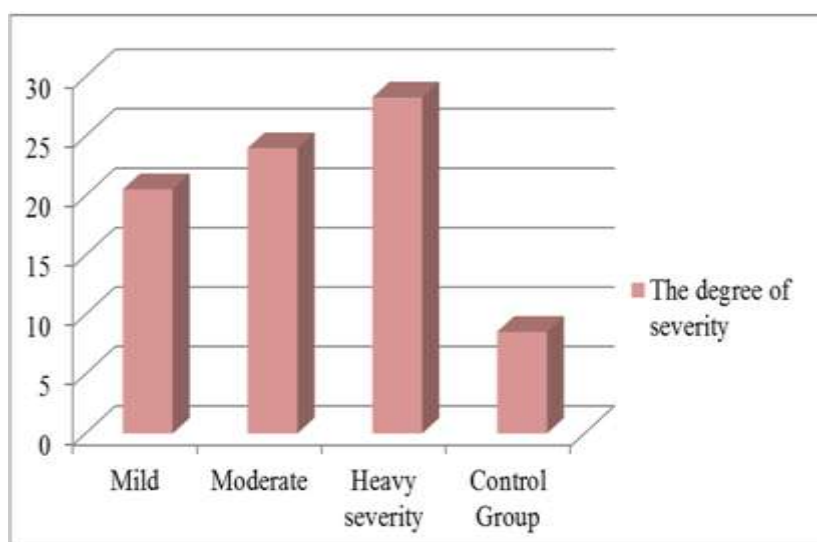


Figure 3: The values anxiety scale assessment The Hamilton Anxiety Rating Scale (HARS) depending on the severity of rosacea in comparison with the control group (mean value in points).

Thus, the sensitivity and interchangeability of The Zung Self-Rating Anxiety Scale and The Hamilton Anxiety Rating Scale (HARS) in patients with different subtypes of rosacea was confirmed.

The overall rate in patients with rosacea according to The Zung Self-Rating Anxiety Scale and The Hamilton Anxiety Rating Scale (HARS) indicated an average level of anxiety. A

strong positive correlation between scores on the Hamilton and the Zung scales of anxiety was revealed ($r = 0,85, p > 0,999$).

DISCUSSION

For dermatology patients both physical well-being indicators and psychological satisfaction are of great importance. According to the study carried the presence of rosacea affects patients' quality of life. Thus, knowledge of the structure of psycho-emotional response of patients with rosacea contributes to proper understanding and evaluation of a patient's condition and provide them timely and effective psychological care, which in turn may facilitate the overall positive dynamics of treatment and long-lasting remission. Further research is needed, which would link together the mechanisms of rosacea development and determine innovative treatment and prognosis of rosacea. In practice, the knowledge of psychological structure of the personal response of patients with various diseases is important for a doctor. Since it allows choosing the best way to correct psycho-emotional component of any dermatosis.

CONCLUSIONS

1. Rosacea reduces patients' quality of life. A moderate degree of impact on life has been found in 61,3% of patients with rosacea based on the DLQI.
2. In groups with all subtypes of rosacea there are the lowest life quality indicators that assess self-perception, performance, leisure activities, as well as issues related to the treatment. 57,5% of respondents are compelled in any way to change their daily activities. Interpersonal relationships are less likely to suffer from the disease. Social adaptation of patients with such dermatosis is broken and requires special attention.
3. Correlation analysis has revealed a strong positive correlative interaction between patients' quality of life and the severity of skin manifestations ($r = 0,81, p > 0,999$). There is a progressive deterioration of patients' quality of life with such dermatosis with increase of the severity of rosacea.
4. The DLQI and SKINDEX-29 are interchangeable.
5. Sensitivity and interchangeability of The Zung Self-Rating Anxiety Scale and The Hamilton Anxiety Rating Scale (HARS) in patients with different subtypes of rosacea have been confirmed.
6. The degree of rosacea severity is directly proportional to the possibility of developing anxiety disorders.

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