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Original Research Article

Associations of the quality of life and psychoemotional state with sociodemographic factors in patients with psoriasis

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ABSTRACT

Objective: The aim of this study was to evaluate the interrelationships between the quality of life and psycho-emotional, demographic, and clinical factors in patients with psoriasis.
Materials and methods: The study included 18-year-old or older patients with psoriasis recruited from the university hospital ($n = 385$). Their sociodemographic data, Psoriasis Area and Severity Index score and disease duration were assessed. The quality of life was evaluated by using the Dermatology Life Quality Index. Depression and anxiety were assessed using the Hospital Anxiety and Depression scale.
Results: A severe change in the quality of life (DLQI ≥ 10 points) was found by 1.8 times more commonly in females, by 2.7 times more commonly in patients with moderate and severe psoriasis (PASI ≤ 10) than in those with a mild psoriasis (PASI ≤ 10), and by about 2 times more commonly in patients with nail psoriasis than in those without, as well as in patients with psoriasis-related anxiety or depression than in subjects without those symptoms. Anxiety and depression were observed in 37.4% and 23.4% of the patients, respectively. Depression was more frequent in patients older than 55 years than in those <35 years of age. Anxiety was more frequent in females and in the respondents with primary and unfinished secondary education.
Conclusions: One-half of patients with psoriasis, women more often than men, regardless of the severity of the disease, reported a significant change in their quality of life. Patients with psoriasis, especially women and older people (aged more than 55 years), experienced anxiety and symptoms of depression.

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1. Introduction

Psoriasis is a chronic recurrent inflammatory disease that affects the skin, the scalp, and nails. According to the World Health Organization (WHO) data, about 3% of the global population has psoriasis [1], and 15%–30% of the affected patients develop psoriatic arthritis [2]. To the best of our knowledge, no research data on the prevalence of psoriasis have been published in Lithuania.

Various environmental factors have been suggested as aggravating factors for psoriasis, including stress, physical trauma, excessive alcohol consumption and smoking [3–7]. Psoriasis has a greater impact on the quality of life of patients aged 18–45 years and affects the socialization of both sexes equally. Men face greater work-related stresses as a result of their psoriasis [8].

Psoriasis is one of the chronic diseases that are characterized by a high risk of depression and anxiety [9]. The disease has been linked to the depression and suicidal tendencies in the patients. Gupta et al. have found that 9.7% of psoriasis patients thought about death, and 5.5% of such patients considered suicide [10]. In addition, patients with psoriasis generally have low self-esteem. Thus 81% have reported feeling embarrassment and shame, whereas 75% reported feeling physically unattractive or sexually undesirable [11]. Psychological stress results in unwillingness to undergo regular treatment of psoriasis [12]. Several studies have shown that in patients with psoriasis or other chronic inflammatory skin diseases, the risk of anxiety and depression is associated with intensive pruritus [13–15]. The itchiness, scaling and localization of skin lesions on body sites not covered with clothes, are major symptoms that cause the most suffering in patients with psoriasis [2,16,17]. Therefore psoriasis affects not only the patients', but also their relatives' quality of life [18].

According to our data, so far only one small-scale cross-sectional study has been conducted comparing associations in the quality of life in Lithuanian ($n = 157$) and Ukrainian ($n = 136$) psoriasis patients [19]. In this study, the majority of Lithuanian patients – in contrast to Ukrainian patients – reported a very large or an extremely large effect of psoriasis on their quality of life. The aim of this study was to evaluate demographic and clinical factors that affect the quality of life and psycho-emotional status of patients with psoriasis. To the best of our knowledge, this is the first large study in Lithuania in this field.

2. Materials and methods

The study included 18 year-old or older male and female patients with psoriasis who were treated at the inpatient and outpatient units of the Department of Skin and Venereal Diseases, Hospital of the Lithuanian University of Health Sciences. The study was carried out during 2012–2014 with the permission of Kaunas Regional Biomedical Research Ethics Committee (No BE-2-38).

Patients who agreed to participate in the study filled out the questionnaire prior to the physicians' consultations at the outpatient unit. Subjects of treated in the inpatient unit were interviewed on the first day of their arrival. The exclusion criteria were attending psychiatric consultations and treatment with psychotropic drugs. In total, 385 anonymous questionnaires were distributed (response rate, 100%).

For the survey, we used an anonymous questionnaire including questions on the patients' sociodemographic data, disease duration, height, and weight. The body mass index (BMI) was calculated following the WHO recommendations, dividing the patients into the following categories: underweight, BMI up to 18.4 kg/m^2; normal body weight, BMI 18.5–24.9 kg/m^2; overweight, BMI 25.0–29.9 kg/m^2; and obesity, BMI ≥ 30 kg/m^2 [20,21].

The subjects' quality of life was evaluated by applying the standardized Dermatology Life Quality Index (DLQI) using 10 questions about the patients' everyday activity, work or studies/learning, personal relationships, and treatment [22]. A validated Lithuanian version of the DLQI questionnaire was used [23]. If the DLQI score ranged from 0 to 1 point, the skin condition had no effect on the subject's life; 2–5 points, the effect was mild; 6–10 points, moderate; 11–20 points, large; and 21–30 points, extremely large.

Using data from medical documentation, the severity of psoriasis was determined by applying the Psoriasis Area and Severity Index (PASI) evaluated by the physician. The total PASI score ranged from 0 to 72 points. Psoriasis was classified as moderate and severe when the PASI score was >10 points [24,25].

Anxiety and depression in patients with psoriasis were evaluated using the Hospital Anxiety and Depression (HAD) questionnaire. This scale is used for surveys of patients treated in general and specialized non-mental healthcare institutions [26]. In 1991, the HAD scale was translated into Lithuanian and has been widely used since [27]. The HAD questionnaire consists of 14 items, 7 of which relate to anxiety and 7 to depression. The evaluation of anxiety and depression was the following: no symptoms (0–7 points), mild symptoms (8–10 points), moderate symptoms (11–14 points), and severe symptoms (≥15 points). Anxiety and depression states were diagnosed when the total score in each subscale of the HAD was ≥8 points.

Statistical analysis. Statistical data analysis was conducted using SPSS 20.0 and Microsoft Office Excel 2007 software. To assess the internal consistency of DLQI and HAD scales, Cronbach's alpha coefficient was used. It evaluates whether all questions of the scale sufficiently reflect the research value, and allows for adjusting the required number of questions on the scale. The internal consistency of the DLQI questionnaire was high in the general scale (0.906). The internal consistency of the HAD questionnaire in the general scale was 0.890; in the anxiety domain, it was 0.779, and in the depression domain, 0.868.

Statistical relationships between qualitative characteristics were evaluated by applying the χ^2 test. Logistic regression analysis was used to determine the factors that significantly severely affected psoriasis patients' quality of life (DLQI ≥ 10). For this purpose, the values of the DLQI were distributed into two groups: DLQI < 10 and DLQI ≥ 10. The initial logistic regression model contained such variables as sex, age, duration of psoriasis, diagnosed psoriatic arthritis, treatment (inpatient/outpatient), PASI, nail lesions, anxiety

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