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The relationship between alexithymia, anxiety, depression, and severity of the disease in psoriasis patients

Psoriasis hastalarında aleksitimi, anksiyete ve depresyonun hastalığın şiddeti ile ilişkisi

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Abstract

Aim: It is known that psychological factors are significant in the onset and exacerbation periods of psoriasis. The purpose of this study is to evaluate the levels of anxiety, depression, and alexithymia in psoriasis patients and to determine their relationship with the severity of disease and quality of life.

Methods: In this case-control study, 71 patients with psoriasis and 86 healthy people constituted the study and control groups, respectively. The clinical severity of psoriasis was determined by the "Psoriasis Area Severity Index" (PASI). "Dermatological Life Quality Index" (DLQI) form was conducted on the patients, and the "Toronto Alexithymia Scale", "Beck Depression Scale" and "Beck Anxiety Scale" questionnaires were used for both the patients and the controls.

Results: Anxiety and depression scores in psoriasis patients were significantly higher than controls (P=0.029, P=0.003, respectively), but there was no significant difference between alexithymia scores (P=0.158). A positive correlation was found between PASI and alexithymia scores (P=0.004), and between the DLQI score of psoriasis patients and anxiety, depression, alexithymia, and PASI scores (P<0.001, P=0.006, P=0.004, P=0.001, respectively).

Conclusion: In our study, anxiety and depression levels were high in psoriasis. As the levels of anxiety, depression, and alexithymia increased, the quality of life deteriorated. Psoriasis patients should be not evaluated dermatologically only, but also be assessed psychologically and directed to the psychiatry outpatient clinic when necessary.

Keywords: Anxiety, Depression, Alexithymia, Psoriasis, Quality of life

Öz

Amaç: Psoriasis hastalığının başlangıcında ve alevlenme dönemlerinde psikolojik faktörlerin önemli olduğu bilinmektedir. Bu çalışmanın amacı psoriasis hastalarında anksiyete, depresyon ve aleksitimi düzeylerinin değerlendirilmesi ve bunların hastalığın şiddeti ve yaşam kalitesi ile ilişkisinin saptanmasıdır.

Yöntemler: Bu vaka-kontrol çalışmasında, 71 psoriasis tanılı hasta çalışma grubumuzu, 86 sağlıklı kişi ise kontrol grubumuzu oluşturdu. Psoriasis hastalığının şiddeti Psoriasis Alan Şiddet İndeksi (PAŞİ) ile belirlendi. Psoriasis hastalarına "Dermatolojik Yaşam Kalite İndeksi" (DYKİ) formu, tüm katılımcılara ise "Toronto Aleksitimi Ölçeği", "Beck Depresyon Ölçeği" ve "Beck Anksiyete Ölçeği" anket formu uygulandı.

Bulgular: Psoriasis hastalarında anksiyete ve depresyon puanları kontrollerden anlamlı düzeyde yüksekti (sırasıyla P=0,029, P=0,003), ancak aleksitimi puanları arasında anlamlı bir fark yoktu (P=0,158). PAŞİ ile aleksitimi puanları arasında pozitif korelasyon saptandı (P=0,004). Ayrıca psoriasis hastalarının DYKİ puanı ile anksiyete, depresyon, aleksitimi ve PAŞİ arasında pozitif korelasyon mevcuttu (sırasıyla P<0,001, P=0,006, P=0,004, P=0,001).

Sonuç: Çalışmamızda psoriasisde depresyon ve anksiyete düzeyi yüksek olarak saptandı. Ayrıca anksiyete, depresyon ve aleksitimi düzeyleri arttıkça yaşam kalitesinin bozulduğu belirlendi. Sonuçlarımıza göre psoriasis hastaları sadece dermatolojik açısından değerlendirilmemeli, psikolojik olarak da değerlendirilmeli ve gerekli durumlarda psikiyatri polikliniğine yönlendirilmelidir.

Anahtar kelimeler: Anksiyete, Depresyon, Aleksitimi, Psoriasis, Yaşam kalitesi

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Introduction

Psoriasis is a chronic inflammatory disease that influences about 1-3% of the population [1]. Although the etiopathogenesis of the disease has not been fully elucidated, genetic, environmental, and immunological factors are considered significant. Presentation can often range from localized, erythematous, white-scaled papules and plaques to generalized severe involvement. Due to the comorbidities associated with psoriasis, it is now defined as a disease spectrum or a systemic disease rather than a limited disease in the skin [2].

The significance of psychological factors is known at the beginning of psoriasis and in periods of exacerbation. Therefore, psoriasis is considered a psychosomatic disease [3]. Psychiatric diseases or psychosocial factors accompany at least 25-30% of dermatological diseases [4]. Psoriasis is one of the most frequently investigated psychosomatic skin diseases. In 40-80% of the patients, psychosocial factors have been defined during the onset of disease or periods of exacerbation [5]. In a study, the rates of depression and anxiety are reported as 44% and 55%, respectively [6]. Depression is more widespread in psoriasis patients than in many other dermatological diseases. It may be a disease-independent diagnosis, or it may develop secondary to the disease [7,8]. Anxiety is characterized by feelings such as worry, and an expectation that something bad will happen. Anxiety disorders are more common in psoriasis than other dermatological illnesses [8,9].

Alexithymia is defined as difficulty in distinguishing, recognizing, identifying, and expressing the feelings of the individual and other people [10,11]. In some studies, it has been reported that alexithymia is observed not only in psychosomatic diseases but also in various medical and psychiatric diseases and the general population [12]. Alexithymic properties were found most frequently in psoriasis patients among those with other dermatological diseases [11,13].

While they are not life-threatening, chronic skin diseases in the visible areas of the skin generally affect patients' appearances, and embarrassment, distress, depression, and restriction from social and physical activities occur in these patients due to chronic stress. For these reasons, their psychosocial statuses, personal relationships, and daily activities are adversely affected, and their quality of life deteriorates [3,8]. Studies have reported that quality of life is impaired in psoriasis [3,9]. In these patients, along with the management of skin lesions, depression, anxiety and alexithymic properties should be evaluated and psychological support should be given when necessary. It will then be possible to increase the quality of life with treatment. In this study, we aimed to evaluate anxiety, depression and alexithymic features in psoriasis patients and determine their relationship with severity and quality of life.

Materials and methods

This case-control study was conducted between August 2017 and December 2017 at the Dermatology outpatient clinic of Kütahya Health Sciences University Evliya Çelebi Training and Research Hospital after obtaining the approval of the local ethics committee (19.07.2017, No=2017-9/9). Our study group consisted of patients diagnosed with psoriasis, and our control group consisted of age and sex-matched healthy subjects. Power analysis G*Power 3.1.9.2 software was used to determine the sample size. The power of this data was calculated as 1-β=0.90 with n_1=86, n_2=86, α=0.05 and an effect size of d=0.5. According to this calculation, we planned to include 86 people in each group, but 15 patients who did not answer more than 50% of the questionnaire in the study group were excluded. Consequently, the data of 71 psoriasis patients and 86 individuals in the control group were evaluated. Those who previously had psychiatric diagnoses and treatment and those with neurological diseases were excluded from the study. The gender, age, marital status, education level, duration of the disease of the psoriasis patients were noted, and the "Psoriasis Area Severity Index" (PASI) was conducted by the same doctor to assess the severity of the disease. The patients filled the "Dermatological Life Quality Index" (DLQI). All participants in the study filled the "Beck Depression Scale" (BDI), the "Beck Anxiety Scale" (BAI), and 20 question-long "Toronto Alexithymia Scale" (TAS-20).

Psoriasis Area Severity Index (PASI)

It is the most frequently used scale to determine the severity of the disease. It is calculated by grading the psoriasis lesions according to degrees of erythema, infiltration and desquamation and the involvement percentages of the affected areas in the body [3].

Beck Depression Inventory (BDI)

It is a self-assessment scale used to determine depressive symptoms and attitudes. It consists of 21 items; and each item gets is scored from 0 to 3. A high total score indicates increased severity of depression experienced by the person. The validity and reliability study of the scale developed by Beck et al. [14] was conducted by Hisli [15] in our country.

Beck Anxiety Inventory (BAI)

It is a self-assessment scale applied to evaluate the level of anxiety experienced by the person. In the scale comprising 21 items, each item scores between 0 and 3. The higher the total score, the higher the level of anxiety [16]. The validity and reliability study in our country was done by Ulusoy et al. [17].

Toronto Alexithymia Scale (TAS-20)

It is a scale of 20 questions evaluating alexithymia, and each item is scored between 1 and 5. High scores indicate a high alexithymic level [18]. In this scale, there are subgroups of difficulty in recognizing emotions, difficulty in expressing emotions, and extrovert thinking. Since the cutoff score of the Turkish version of the scale was 59, individuals scoring 59 and above were evaluated as alexithymic [19,20]. In our study, as in some studies, only a general alexithymia score was calculated [20].

Dermatology Life Quality Index (DLQI)

Consisting of a total of 10 questions evaluating the patient's quality of life, DLQI is a common test specific to dermatological diseases. Each question scores between 0 and 3, the height of the total score is related to poor quality of life [21,22].

Statistical analysis

Kolmogorov-Smirnov test was used to evaluate the conformity of the data to normal distribution. Descriptive statistical methods were used to evaluate frequency, percentage,

mean (standard deviation (SD)). Chi-square test was used for univariate analysis. A non-parametric test, Mann-Whitney U test, was used to compare mean values between the groups, and Spearman's correlation analysis was utilized to evaluate correlation. *P*-value <0.05 was considered statistically significant.

Results

In our study, there were 157 people, 55% constituted by the control group and 45% by the psoriasis patients. The mean age of the participants was 35.8 (13.9) years. Among them, 46.5% were male and 53.5% were female. There was no significant difference between the study and control groups in terms of age, gender, and marital status (*P*>0.05). Control individuals were found to have a higher education level than the study group (*P*=0.001) (Table 1).

Anxiety and depression scores in the study group were significantly higher than that among the controls (*P*=0.029, *P*=0.003, respectively), but there was no meaningful differentiation between alexithymia scores (*P*=0.158) (Table 2). According to the Alexithymia cut-off scores, 25.3% of psoriasis patients and 21.7% of the whole study group were alexithymic. There was no statistical difference between both groups in terms of alexithymia status (*P*=0.307) (Table 2). Alexithymic and non-alexithymic groups were similar in terms of gender, age, education period and marital status (*P*>0.05) (Table 3).

The mean (SD) PASI scores of psoriasis patients in our study was 5.8 (4.0). There was no significant correlation between the PASI, BDI and BAI scores. PASI score and TAS scores were positively correlated (r=0.34; *P*=0.004). The mean DLQI score of psoriasis patients was 8.9 (6.6). There was a positive correlation between the DLQI score of psoriasis patients and anxiety, depression, alexithymia and PASI (*P*<0.001, *P*=0.006, *P*=0.004, *P*=0.001 respectively). No significant correlation was found between the disease duration of the patients and DLQI, BDI, BAI, and TAS scores (*P*>0.05) (Table 4).

There was a significant positive correlation between the total TAS score of the study group and the BDI and BAI scores (*P*<0.001, *P*<0.001 respectively). A significant positive correlation was also found between DLQI scores and the TAS score of the study group (*P*=0.004).

Table 1: Sociodemographic characteristics of the study and control groups

	Control group (n=86) n(%)	Study group (n=71) n(%)	Total (n=157)	Statistics
Age (Year) mean (SD)	37.1 (13.6)	34.1 (14.1)	35.8 (13.8)	*Z*=-1,512 *P*=0.131
Gender				
Male	37 (50.7)	36 (49.3)	73 (46.5)	X^2=0.922
Female	49 (58.3)	35 (41.7)	84 (53.5)	*P*=0.337
Marital status				
Single	38 (61.3)	24 (38.7)	62 (39.5)	X^2=1.755
Married	48 (50.5)	47 (49.5)	95 (60.5)	*P*=0.185
Educational level				
Primary school	18 (36.0)	32 (64.0)	50 (31.8)	X^2=15.718
Secondary school	24 (51.1)	23 (48.9)	47 (29.9)	*P*=0.001
University	44 (73.3)	16 (26.7)	60 (38.3)	

Table 2: Scores of study and control group questionnaires

	Control group	Study group	Total	Statistics
BDI mean (SD)	11.3 (10.7)	15.2 (9.8)	13.0 (10.5)	*Z*=-2.942 *P*=0.003
BAI mean (SD)	9.1 (8.1)	12.6 (10.7)	10.9 (9.9)	*Z*=-2.188 *P*=0.029
TAS mean (SD)	48.8 (9.8)	51.3 (9.5)	49.9 (9.7)	*Z*=-2.412 *P*=0.158
Alexithymia* n (%)				
No	70 (56.9)	53 (43.1)	123 (78.3)	X^2=1.04
Yes	16 (47.1)	18 (52.9)	34 (21.7)	*P*=0.307

* Row percentage taken, BDI: Beck Depression Inventory, BAI: Beck Anxiety Inventory, TAS: Toronto Alexithymia Scale

Table 3: Comparison of demographic characteristics of the group with and without alexithymia

	Non-Alexithymia (n=123) n (%)	Alexithymia (N=34) n (%)	Total (N=157)	Statistics
Age (Year) mean (SD)	36.3 (13.9)	33.8 (13.7)	35.8 (13.9)	*Z*=-0.944 *P*=0.345
Gender				
Male	55 (75.3)	18 (24.7)	73 (46.5)	X^2=0.724
Female	68 (81.0)	16 (19.0)	84 (53.5)	*P*=0.395
Marital status				
Single	47 (75.8)	15 (24.2)	62 (39.5)	X^2=0.389
Married	76 (80.0)	19 (20.0)	95 (60.5)	*P*=0.533
Educational level				
Primary school	40 (80.0)	10 (20.0)	50 (31.8)	X^2=1.470
Secondary school	34 (72.3)	13 (27.7)	47 (29.9)	*P*=0.480
University	49 (81.7)	11 (18.3)	60 (38.3)	

Table 4: Relationship between PASI, disease duration, DLQI and BDI, BDI, TAS in patients with psoriasis, correlation

	PASI		Disease duration		DLQI	
	r	*P*-value	r	*P-value*	r	*P*-value
DLQI	0.389	0.001	0.156	0.200	-	-
BDI	0.138	0. 254	-0.117	0.335	0.327	0.006
BAI	0.127	0. 291	0.130	0.280	0.432	<0.001
TAS	0.340	0.004	0.023	0.849	0.341	0.004

DLQI: Dermatology Life Quality Index, BDI: Beck Depression Inventory, BAI: Beck Anxiety Inventory, TAS: Toronto Alexithymia Scale, PASI: Psoriasis Area Severity Index

Discussion

Since psoriasis is considered a psychosomatic disease, its relationship with psychiatric disorders has been examined by researchers for a long time. It was found that stress was important at the onset and during psoriasis episodes, and anxiety and depression levels were higher in psoriasis patients [3,7,9]. Similarly, we found elevated levels of depression and anxiety in our study group. On the contrary, Güleç et al. [23] reported that depression is common among psoriasis patients, but not significantly higher than healthy controls.

Different results have been reported in studies investigating the relationship between psoriasis severity, depression, and anxiety. Ozguven et al. [24] found that there is a relationship between depression and psoriasis severity, but not anxiety and psoriasis severity. In their study, Kılıç et al. [25] reported that there was no link among the severity of psoriasis, anxiety, and depression, a finding akin to our study. Similar to the studies in the literature, we found no relationship between the duration of psoriasis disease, depression and anxiety [25].

Studies investigating alexithymia are increasing in psoriasis patients. Different rates ranging from 21% to 42.2% have been found in studies for alexithymia among various clinical groups [20]. We found alexithymia in 25.3% of patients with psoriasis, but the difference was not significant compared to the controls as in the other two studies conducted in our country [11,23]. However, some studies have found a relationship between psoriasis and alexithymia [26]. In the study of Richards et al., the rate of alexithymia was 33% among psoriasis patients, while it was reportedly not related to the severity and duration of the disease [27]. Similarly, in another study conducted in our country, it was stated that there was no relationship between the total score of alexithymia and the severity and duration of the disease [23]. In our study, while a relationship was found between alexithymia score and the severity of the disease, the duration of the disease was not related. In addition, there was a relationship between alexithymia, depression, and anxiety in our study. This result makes us think that we should pay attention to the possibility of alexithymia in patients with depression and anxiety.

Although different scales have been used in studies regarding the quality of life in psoriasis patients, it has been found that it is frequently decreased [3,9,28]. In one study, the effect of psoriasis on quality of life was reported to be similar to those of serious medical conditions such as hypertension, cancer, diabetes, and depression [28].

Different results have been reported in studies on the relation between quality of life and severity of the disease. In a study conducted in our country, the mean PASI score was 5.76 and a negative correlation was found between the PASI score and quality of life [29]. Similarly, in our study, we found the mean PASI value of 5.87, and as the PASI score increased, the quality of life decreased. However, in two studies conducted in our country, no significant relationship was found between the quality of life and the severity of the disease [3,9]. In our study, we also found a negative correlation between patients' quality of life and depression and anxiety, that is, the quality of life deteriorated as the level of depression and anxiety increased. Sesliokuyucu et al. [9] found a relationship between quality of life, depression and anxiety in their studies using different questionnaires in psoriasis patients. In another study, it was reported that depression is highly effective in the quality of life in psoriasis patients and affects the quality of life as much as the severity of the disease [7].

Limitations

This study had several limitations. Firstly, the sample group was relatively small. Secondly, the data obtained depend on the participants' own statements, and no psychiatric interviews were conducted. Therefore, we believe that our results should be supported by prospective studies with a larger population and diagnostic psychiatric interviews.

Conclusion

Psoriasis, considered a psychosomatic disease, negatively affects patients' lives in most aspects. These patients should be managed both dermatologically and psychologically. In addition, we believe that methods which will likely improve the quality of life will increase the compliance of the patients, rendering the treatment more successful and reducing the severity of the disease. In this respect, we believe that the levels of depression, anxiety, and alexithymia, all of which are related to the quality of life in psoriasis patients, should be evaluated in each patient during follow-up and treatment.

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