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Psychiatric Morbidity in Patients with Vitiligo

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ABSTRACT

Psychiatric morbidity in patients with vitiligo

Objective: The aim of this study was to determine the frequency of psychiatric morbidity in vitiligo patients treated at the dermatology outpatient clinic and to investigate the relation between anxiety, depression, social anxiety levels, and self esteem and disability in these patients.

Method: Fourty-two patients with vitiligo were assessed with Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I), Hospital Anxiety Depression Scale (HADS), Rosenberg Self-Esteem Scale (RSES), Liebowitz Social Anxiety Scale (LSAS) and Sheehan Disability Scale (SDS). Control group included subjects matched to patients in terms of age, sex and education level.

Results: In comparison to healthy controls, the rate of psychiatric morbidity was found to be higher and mean self-esteem score was found to be lower in the vitiligo group. There was no significant difference between groups in terms of social anxiety. Majority of the patients were mildly disabled. Among the vitiligo cases, psychiatric morbidity was found more frequent in female and young participants. Anxiety and social avoidance scores negatively correlated with age.

Conclusion: These findings suggest that the rate of psychiatric morbidity is higher in patients with vitiligo than healthy control subjects. Patients with vitiligo treated at dermatology clinics should be assessed in terms of psychiatric disorders and psychiatric interventions may become necessary in the course of illness.

Key words: Self esteem, psychiatric morbidity, social anxiety, vitiligo

ÖZET

Vitiligolu hastalarda psikiyatrik morbidite

Amaç: Bu çalışmanın amacı, dermatoloji polikliniğinde ayakta tedavi gören vitiligolu hastalarda psikiyatrik morbidite sıklığını saptamak ve bu hastalardaki kaygı, depresyon ve sosyal kaygı düzeyleri ile benlik saygısı ve yeti yitimi arasındaki ilişkiyi incelemektir.

Yöntem: Çalışmaya alınan 42 vitiligo hastası, DSM-IV Eksen I Bozuklukları İçin Yapılandırılmış Klinik Görüşme (SCID-I), Hastane Anksiyete ve Depresyon Ölçeği (HADÖ), Rosenberg Benlik Saygısı Ölçeği (RBSÖ), Liebowitz Sosyal Kaygı Ölçeği (LSKÖ) ve Sheehan Yeti Yitimi Ölçeği (SYYÖ) ile değerlendirilmiştir. Kontrol grubu, hasta grubu ile yaş, cinsiyet ve eğitim düzeyi bakımından benzer olan 33 sağlıklı gönüllüden oluşturulmuştur.

Bulgular: Vitiligo grubunda, kontrol grubuna göre psikiyatrik morbidite sıklığı daha yüksek, benlik saygısı belirgin olarak daha düşük saptanmıştır. Sosyal kaygı, kontrol grubundakinden farklı olmayıp, yeti yitimi vitiligo olgularının çoğunda hafif derecede bildirilmiştir. Vitiligo olguları içinde gençlerde ve kadınlarda psikiyatrik morbidite daha sık saptanmıştır. Yaş ile kaygı ve sosyal kaçınma puanları arasında negatif korelasyon tespit edilmiştir.

Sonuç: Bulgular, vitiligo olgularında psikiyatrik morbidite sıklığının sağlıklı kontrol grubuna kıyasla daha yüksek olduğunu göstermektedir. Dermatoloji polikliniklerine başvuran vitiligo olguları psikiyatrik açıdan değerlendirilmeli, gerekli durumlarda hastaların psikiyatrik destek alması sağlanmalıdır.

Anahtar kelimeler: Benlik saygısı, psikiyatrik morbidite, sosyal kaygı, vitiligo

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INTRODUCTION

Skin has a special position in psychiatry due to its responsiveness to emotional stimuli and expressivity of emotions such as anger, fear and shame. It has an important role in development of self-esteem and ego integrity (1). Relationship between skin and brain is based on both being originated from the same ectodermal structure and being under influence of same hormones and neurotransmitters (2). At this point, psychodermatology makes up a common area of interest based on the mutual relationship and interaction between psychiatry and dermatology (3).

Psychodermatological disorders can be classified under three main titles according to relationship between

dermatological diseases and psychiatric disorders (3,4): 1-) Psychophysiological (psychosomatic) disorders (acne, alopesia areata, atopic dermatitis, psoriasis, psychogenic purpura, rosea, seborrheic dermatitis and urticaria etc.); 2-) Conditions which the primary disorder is psychiatric but patient him/herself causes the skin disease (parasitosis delusion, dysmorphophobia, artificial dermatitis, neurotic itches, trichottilomania etc.); 3-) Psychiatric disorders developing secondary to morphological changes caused by dermatological disorder (alopesia areata, cystic acne, hemangioma, ichtyosis, psoriasis, vitiligo etc.).

According to this classification, vitiligo which is in the third group is the most prevalently acquired pigmental disorder affecting 0.1-2% of the world population independent from race and gender (5). Although it does not cause physical disability or pain, it may have a substantial psychosocial impact on the functionality of patient and people with vitiligo have to struggle against feeling of embarrassment and low self-esteem more than other dermatological patients (6). Psychological effects of vitiligo may vary from person to person but it may cause problems up to severe loss of self-esteem and social anxiety in people with dark skin and with lesions in visible skin areas (7,8). Moreover, factors such as being in adolescence or young adulthood, female gender, living alone and low socio-economic status negatively affect adherence to the disease (9,10). In at least one third of patients, a psychiatric disorder, mainly affective and anxiety disorders accompany vitiligo (7,11,12). It is already known that one should cope with related psychiatric or psychological factors in a substantial portion of patients in order to treat skin lesions effectively (13).

Aim of this study is to investigate the anxiety and depression level, social anxiety and avoidance, self-esteem and functional losses of patients with vitiligo admitted to dermatology outpatient clinic and examine them for psychiatric morbidity by comparing to healthy control group.

METHODS

Sample

Vitiligo patients between 18 and 65 years old admitted to Ankara University Medical School, Dermatology Outpatient Clinic were invited to the study and this study was introduced to them. Forty-two patients (23 women, 19 men) with vitiligo who gave consent to participate in the study were recruited. Control group consisted of 33 (19 women, 14 men) people from hospital personnel and their relatives who have no known dermatological or psychiatric disorders and similar to patients for age, gender and educational levels. Subjects with mental retardation, psychotic disorder, dementia, delirium and other amnestic disorders and did not consent after preliminary interview were not recruited in the study.

Tools

Informed consent and socio-demographic data forms were given to the participants and following scales were administered:

1. Structured Clinical Interview for DSM-IV Axis I Disorders, Clinical Version (SCID-I): This is a structured clinical interview administered by interviewer to assess diagnosis of axis I psychiatric disorder according to DSM-IV (14). It can be administered by a trained interviewer to people over 18 years old who have adequate cognitive abilities to conduct this structured interview. This scale consists of six modules and examines 38 DSM-IV axis I disorders with diagnostic criteria and 10 axis I disorders without diagnostic criteria for "present" and "lifelong" options. Adaptation and reliability study of the Turkish version was done by Özkürkçügil et al. (15).

2. Hospital Anxiety and Depression Scale (HADS): This is a self-rating scale developed to determine the risk, level and change of severity of anxiety and depression in patients with somatic diseases and admitted to first level healthcare (16). It was translated to Turkish and its validity and reliability study was done (17). It has anxiety (HAD-A) and depression (HAD-D) subscales and consists of 14 items. Seven of them assess anxiety and remaining seven items assess depression. It provides quadruple Likert type assessment. In the study done in Turkey, cut-off point was found 10/11 for anxiety subscale and 7/8 for depression subscale. According to this, subjects

receiving scores over this point are evaluated as risk group.

3. Rosenberg Self-Esteem Scale (RSE): The scale developed by Rosenberg (18) has 63 items and 12 subscales. First 10 items are used to assess self-esteem. In our study, self-esteem subscale consisting of 10 questions was used. This scale is a quadruple Likert type self-rating scale consisting of 10 items. Validity and reliability study of Turkish version was done by Çuhadaroğlu (19). If total score from first 10 items are 0-1 then self-esteem is evaluated as high, if the score is 2-4, it is evaluated as moderate, if 5-6 it is evaluated as low.

4. Liebowitz Social Anxiety Scale (LSAS): This scale was developed by Heimberg et al. (20). It was developed to determine fear and/or avoidance levels of patients with social anxiety disorder in case of social communication or performance. A total of 24 items are evaluated in quadruple Likert type for anxiety and avoidance subtitles separately. Cut-off point was not calculated in the study of Turkish version of the scale. Validity and reliability of Turkish version was done by Soykan et al. (21).

5. Sheehan Disability Scale (SDS): This scale consists of "work", "social life/leisure time activities" and "family life/responsibilities at home" subscales and is used to determine disability in these domains. Scoring is done by the subject according to grading between 0 and 10. Impairment in different levels such as none (0), mild (1,2,3), moderate (4,5,6), evident (7,8,9) and very much (10) in this scale (22).

Statistical Analyses

Analyses of data were done by SPSS (Statistical Package for Social Science) 11.5 software. Descriptive statistics were shown as mean and standard deviation values. Presence of statistically significant difference between independent groups in subscales and total scale scores were evaluated by using Mann-Whitney U-test when there were two independent groups. Categorical comparisons were done by using chi-square test. Correlation between age and subscales and total scale scores within groups were analyzed by Spearman correlation test. Level of significance was taken as $p<0.05$.

RESULTS

Socio-demographic characteristics of study groups can be seen in Table 1. Mean age in vitiligo and control group was 39.70±12.90 and 35.12±9.07, consecutively. There were no statistically significant differences between patients with vitiligo and healthy control

Table 1: Demographic characteristics of vitiligo and control groups

		Vitiligo Group (n=42)	Control Group (n=33)	z	p
Age, Mean±S.D		39.70±12.90	35.12±9.07	-1.79	0.074
		Vitiligo Group (n=42)	**Control Group (n=33)**	**χ^2**	**p**
Gender	Woman, n (%)	23 (54.8%)	19 (57.6%)	0.76	0.54
	Man, n (%)	19 (45.2%)	14 (42.4%)		
Marital status	Married, n (%)	29 (69.0%)	20 (60.6%)	0.58	0.45
	Single, n (%)	13 (31.0%)	13 (39.4%)		
Educational level	Primary school and lower, n (%)	7 (16.7%)	4 (12.1%)	6.04	0.2
	Secondary school, n (%)	9 (21.4%)	10 (30.3%)		
	High school or equivalent, n (%)	11 (26.2%)	13 (21.4%)		
	Undergraduate, n (%)	5 (11.9%)	-		
	Graduate, n (%)	10 (23.8%)	6 (18.2%)		
Work status	Working, n (%)	25 (59.5%)	21 (63.6%)	0.13	0.72
	Not working, n (%)	17 (40.5%)	12 (36.4%)		

χ^2: Chi-square test, z: Mann Whitney U test, S.D.: Standard Deviation

Table 2: Comparison of vitiligo and control groups according to SCID-I diagnoses and distribution of diagnoses

SCID-I		Vitiligo Group (n=42)	Control Group (n=33)	χ^2	p
Diagnosis present/absent		13/29	3/30	5.26	0.02
Diagnoses:	Major Depresssion	6	2		
	Dysthymic Disorder	2	-		
	Social Phobia	1	-		
	Specific Phobia	1	-		
	Alcohol Addiction	1	-		
	Generalize Anxiety Disorder	2	1		

χ^2: Chi-square test

Table 3: Comparison of vitiligo and control groups according to scores from Rosenberg Self-Esteem Scale (RSE), Hospital Anxiety and Depression Scale (HADS) and Liebowitz Social Anxiety Scale (LSAS) and their correlations with age

		Vitiligo Group (n=42) Mean±S.D.	Control Group (n=33) Mean±S.D.	z	r¥
RSE		0.79±0.99	1.64±1.54	2.67**	-0.02
HADS	Anxiety	4.50±2.48	6.00±4.25	-1.17	-0.37*
	Depression	4.40±2.72	6.80±5.10		-0.07
LSAS	Anxiety	14.40±8.89	14.50±12.33	-0.99	-0.18
	Avoidance	11.80±9.26	16.20±14.75		-0.32*

*p<0.05, **p<0.01, ¥Spearman correlation coefficient, z: Mann Whitney U test, S.D.: Standard Deviation

group for age, gender, educational level, marital status and working status (Table 1).

When presence of a psychiatric diagnosis was compared between vitiligo and control groups after interviews with SCID-I, prevalence of a psychiatric disorder in vitiligo group (n=13; %31) was found higher than control group (n=3; %9.1) and difference between groups was statistically significant (p<0.05). Distribution of diagnoses by SCID-I were shown in Table 2 in detail for both groups. Major depression was the most prevalent diagnosis of note.

According to Rosenberg Self-Esteem Scale (RSE) scores, self-esteem of vitiligo groups was found statistically significantly lower than control group (p<0.01). No statistically significant difference was found between HADS and LSAS scores of two groups (Table 3).

Cases from vitiligo group were classified according to disability levels in Table 4 and most of the cases reported mild disability at all three life domains.

Table 4: Distribution of cases according to Sheehan Disability Scale (SDS) in vitiligo group

	Work Life	Family Life	Social Life
Mild	34	39	30
Moderate	4	2	6
Severe	4	1	6

When scale scores of female and male vitiligo patients were compared, women scored higher than men at all scales and differences in HADS scores and SDS-family life scales were found statistically significant as can be seen in Table 5. Comparison according to being married (n=29) or single (n=13) and having limited (n=33) or diffuse (n=9) lesions were not done due to asymmetric distribution of groups and low number of patients in single patient groups. Negative correlation was found between HAD-anxiety and LSAS-avoidance scores in correlation analysis (p<0.05).

Table 5: Comparison between genders in vitiligo group according to scales (mean score±Standard deviation)

		Women (n=23) Mean±S.D.	Men (n=19) Mean±SD	z	p
RSE		2.00±1.69	1.20±1.21	-1.7	0.089
HADS	Anxiety	7.50±4.19	4.20±3.66	-0.9	0.005
	Depression	8.70±5.42	4.60±3.70	-0.9	0.010
LSAS	Anxiety	15.60±12.50	13.20±12.34	-0.7	0.403
	Avoidance	17.70±13.40	14.40±16.43	-1.6	0.100
SDS	Work	1.90±2.99	1.00±1.86	-0.6	0.547
	Social	3.00±2.75	1.50±2.39	-1.9	0.054
	Family	1.60±2.17	0.30±0.73	-2.4	0.018

z: Mann Whitney U test, S.D.: Standard Deviation, RSE: Rosenberg Self-Esteem Scale, HADS: Hospital Anxiety and Depression Scale, LSAS: Liebowitz Social Anxiety Scale, SDS: Sheehan Disability Scale

DISCUSSION

We found in our study that first axis psychiatric disorders were more frequent in vitiligo group than control group. Major depression was the most prevalent diagnosis of note. Self-esteem was also found statistically significantly lower in vitiligo group than control group. No statistical difference was found between anxiety, depression and social depression scores. In the majority of cases of vitiligo group at least mild disability was found at all three life domains. Negative correlation was found between age and anxiety and social withdrawal scores in correlation analysis.

In several studies, psychiatric disorders were reported to be observed more in people with dermatological diseases (23-28). In a study done in cases with vitiligo, 40% of cases were found to be depressive and had low self-esteem (29). In the study of Sukan and Maner (11) which they compared patients with vitiligo and chronic urticaria for SCID-I diagnoses, they found high prevalence of psychiatric morbidity such as social phobia (26%), dysthymia (26%), obsessive compulsive disorder (26%) and specific phobia (36%) in cases with vitiligo. In the study of Mattoo et al. (7) which 113 vitiligo cases and 55 healthy controls were assessed with general health questionnaire, psychiatric morbidity prevalence was found 25% in vitiligo cases and concluded that vitiligo is correlated with high psychiatric morbidity. Sharma et al. (27) evaluated psychiatric morbidity by examining 30 newly diagnosed and untreated psoriasis or vitiligo patients between 18 and 60 years old by Hindu Version of General Health Questionnaire and found psychiatric morbidity in 53.3% of patients with psoriasis and in 16.2% of patients with vitiligo. In our study, we found a psychiatric disorder in 31% of vitiligo cases and majority of them were affective or anxiety disorders. This finding is consistent with current literature. This finding suggests that people with vitiligo are under risk of psychiatric disorders.

Healthy and normal skin is important for physical and mental health of people and has an important role in development of self-esteem (30). In a study done in Turkey which patients with vitiligo and urticaria were compared to control group, self-esteems of both patients groups were found significantly lower than control group (31). In particular, childhood-onset vitiligo was found to be correlated with important psychosocial trauma leading to negative self-esteem (32). In another study, 16 vitiligo cases were evaluated by RSE. Patients having low self-esteem were divided into two groups and cognitive-behavioral therapy was administered to one group. When patients were re-evaluated at the end of the study, significant elevation of self-esteem and decreasing of lesions were observed in the group receiving psychotherapy (33). In our study, self-esteem evaluated by RSE was found lower in vitiligo group which is consistent with the literature. This finding supports the mutual agreement of negative effects of dermatological diseases such as vitiligo which affect body image without physical disability or pain on self-esteem and self-respect.

In a study with a large sample (n=610), HADS was

used and depressive symptoms in 4% and anxiety symptoms in 22% of patients vitiligo were found over cut-off score (34). Prcic et al. (35) compared 33 adolescent vitiligo patients and 60 healthy controls and found no significant difference between depression and anxiety scores. In our study, HADS scores from anxiety and depression subscales of vitiligo group were higher than control group but difference was not found statistically significant. Different results were reported in the related literature. Comprehensive studies with higher number of patients will give us more information about this issue.

Although no specific study investigating comorbidity of vitiligo and social anxiety disorder has been found, there is a study done by Özgüven et al. (36) investigated secondary social anxiety in another chronic dermatological disease, psoriasis. In this study, 32 psoriasis patients and 32 healthy controls were compared by LSES and scale scores were found significantly higher in psoriasis patients. No significant difference was found between vitiligo and healthy control groups according to social anxiety scores. Generally, visibility of lesions by others and contamination anxiety due to superstitions in patients with dermatological diseases may cause problems in social acceptance of individual. Not observing this situation might have been originated from the lower number of cases in our study. Similarly, when vitiligo cases were evaluated according to SDS, majority of the cases were mildly affected in family, professional and daily lives. Another reason of indifference between LSAS scores of vitiligo and control groups might have been due to subjective mild disability of vitiligo cases.

When patients with dermatological diseases were compared according to their genders, it was found that women are affected more than men from psychiatric point of view (37). In another study, psychiatric morbidity was found more frequent in women and singles than men and married people (26). In our study, psyhcopathology was found more frequent in women than men which is consistent with literature. In a study which vitiligo cases were evaluated by general health questionnaire and open-ended questions, it was seen that quality of life and self-esteem decrease, but psychiatric morbidity and perceived stigmatization increase, by lower ages (38). In our study, anxiety and avoidance sub scores of social anxiety scale increase but no correlation between depression and self-esteem and age was detected. Thoughts and judgment about how a person is appraised by others have important roles in the development of social anxiety. Self-esteem and depression concepts have wider dimensions compared to social anxiety. Inner appraisal instead of appraisal by outer world and environment affect these concepts. Body image makes up an important portion of self-esteem in adolescence but decreases by increasing age. A similar correlation was found in patients with acne by Yarpuz et al. (28). This finding is not surprising when it is thought that physical appearance plays an important role in young adulthood.

There are studies showing that when psychiatric morbidity increases by increasing severity or increasing area of the dermatological disease (26,36,37). In a study done with vitiligo patients, by increasing visibility of lesions, perceived stigmatization feeling also increases and self-esteem decreases (39). No statistical comparison was done due to lower number of patients (n=9) in our study.

Limitations of our study were its cross-sectional nature, low number of patients recruited in both patient and control groups, composition of the study group from outpatient clinic and not including data about duration and history of treatment of vitiligo.

In conclusion, our findings showed that prevalence of psychiatric morbidity is higher than healthy controls in vitiligo cases. This risk seemed to be higher in young people and women and patients having wider lesions and lesions in visible areas. All vitiligo patients should be screened for psychiatric morbidity if possible and case should be evaluated in collaboration with psychiatry for better outcomes. Psychiatric support should be considered as first-line especially in risk groups.

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