RESEARCH ARTICLE

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Received: 01.12.2020
Acceptance: 14.04.2021
DOI: 10.18521/ktd.834163

This study was presented at 1. International cosmetology and dermatology congress (Indercos) 16-20 march 2016

Konuralp Medical Journal
e-ISSN1309–3878
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Alexithymia and Behçet's Disease

ABSTRACT

Objective: Behçet's Disease (BD) is an immunoinflammatory systemic disease. In young adults it seen as genital ulceration, uveitis and oral aphthae. In some patients, BD may affect the central nervous system and some psyschiatric symptoms may accompany this disease. There are few studies in the literature evaluating the relationship between BD and alexithymia. In this study, the relationship between BD and alexithymia is evaluated.

Methods: Fifty patients diagnosed according to the International Study Group for Behçet's Disease diagnostic criteria and fifty age and gender-matched healthy individuals were included in the study. Turkish versions of Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI) and Toronto Alexithymia Scale (TAS-20) were applied to the patients and controls.

Results: According to TAS-20 scale, alexithymia was classified as: non-alexithymia, moderate and severe alexithymia. In the classification of TAS, there was a significant difference between the cases and the control group (p = 0.019).In patients with BD, alexithymia was 6 times higher than control group (OR = 6.139)(95% CI = 1,657-23.913).

Conclusions: Behçet's disease is strongly associated with alexithymia. Recognizing of these psychiatric symptoms is important for management of BD patients. Psychotherapeutic interventions should planned by dermatologist.

Keywords: Behçet's Disease, Alexithymia, Toronto Alexithymia Scale

Aleksitimi ve Behçet Hastalığı

ÖZET

Amaç: Behçet Hastalığı (BH) immunoinflamatuar sistemik bir hastalıktır. Genç erişkinlerde sıklıkla genital ülserasyon, üveit ve oral aft ile seyretmektedir. Bazı hastalarda BH santral sinir sistemini etkileyebilmektedir ve bazen psikiyatrik semptomlar hastalığa eşlik edebilmektedir.Literatürde BH'nın aleksitimi ile ilişkisini değerlendiren az sayıda çalışma bulunmaktadır. Bu çalışmada BH ve aleksitimi arasındaki ilişki değerlendirilmektedir.

Gereç ve Yöntem: İnternasyonal Çalışma Grubu Behçet hastalığı tanı kriterlerine göre tanı almış 50 olgu çalışmaya dahil edildi. Olgulara, yaş cinsiyet eşlemeli 50 kişilik kontrol grubu oluşturuldu. Beck Depresyon Envanteri (BDE), Beck Anksiyete Envanteri (BAE) ve Toronto Aleksitimi s kalasının (TAS) Türkçe versiyonu olgulara ve kontrollere uygulandı.

Bulgular: TAS skalasının aleksitimi: yok, orta ve şiddetli aleksitimik olarak sınıflandırıldı. TAS sınıflandırılmasında olgu ve kontrol grubu arasında anlamlı fark saptandı (p = 0.019). Behçet hastalığı olan olgularda aleksitimi kontrole göre 6 kat daha fazlaydı (OR = 6.139) (95% CI = 1,657-23.913).

Sonuç: Behçet hastalığı aleksitimi ile kuvvetle ilişkilidir. Bu psikiyatrik semptomları farketmek Behçet olgularını tedavi etmek açısından önemlidir. Dermatologların olgularında psikoterapotik değerlendirmeleri unutmaması gerektiğini düşünmekteyiz.

Anahtar Kelimeler: Behçet Hastalığı, Aleksitimi, Toronto Aleksitimi Skalası

INTRODUCTION

Turkish physician Prof. Hulusi BEHÇET defined Behçet's disease (BD) in 1937. It is an immunoinflammatory system disease and widely seen in in young adults as genital ulceration, uveitis and oral aphthae. Moreover, it can be characterized by vasculitis of veins and arteries. The exact etiopathogenesis of Behçet's disease has not been clarified (1).

In some patients, BD may affect the central nervous system and some psychiatric symptoms may accompany this disease. These symptoms can be caused by central nervous system involvement in BD patients. It has been reported that the incidence of psychiatric symptoms is about 85% after the first symptoms of BD. Although the etiology of these symptoms is not clear, the progression of BD, involvement of central nervous system, using steroid for treatment in some patients and functional deterioration are thought to be related with the psychiatric symptoms (2,3,4). Alexithymia is a personality disorder of cognitive function and emotional disturbance and described as the state of being alienated at the level of which one cannot express himself or herself. It causes a reduced symbolic thinking and limited ability to verbally express emotions which cannot be differentiated and identified well. Some studies reported that the prevalence of alexithymia is approximately 7–9% and it is a post-traumatic disorder seen generally in schizoid structure (5,6). The word "alexithymia" emerged with the integration of the words a- (not), lexis (words, speech) and thymos (anger, nervousness, emotion) in Greek, introduced firstly by Sifneos in 1973. Its definition as "no speech for emotions" has been changed and refined since its first introduction and actual definition can be considered as the following factors: (i) difficulty in describing feelings to other people;(ii) difficulty in distinguishing between feelings and the bodily emotions (iii) constricted imaginative processes; and (iv) an externally oriented stimulated sensation (7). Other pathologies can be accompanied in alexithymia such as somatoform disorders, alcoholism, drug addiction, posttraumatic stress, asthma, depression, eating disorders (EDs) and so on (8). Furthermore, people with alexithymia have difficulty in distinguishing and appreciating the emotions to regulate in the neuroendocrine and, also, autonomic system which causes some somatic diseases. In the etiology of alexithymia, many factors such as neurobiological deficits, variations in brain neuronal system or genetic influences can play a role. Numerous physiological causes of alexithymia are reported. However, inconsistencies exist between the information given about the pathways. It is known that alexithymia is associated with depression, psychoticism and anxiety. Neuroticism and introversion are also known to have a positive correlation with alexithymia. On the other hand, it is a fact that extraversion and sociability are in a negative relationship with alexithymia (9).

Taylor et al created Toronto Alexithymia Scale (TAS). This is the most reliable measure to evaluate alexithymia (10). Therefore, it is observed that individuals who have difficulty in expressing emotions are at risk for some specific dermatological diseases. Although previous studies have shown conflicting results, it is seen that acne, psoriasis or alopecia areata diseases are accompanied by alexithymia (11,12,13).

There were studies about the association of BD with depression and anxiety but not enough about the relationship between alexithymia and BD. In out patient practice, we observed that the patients with BD have decreased symbolic thinking, and restricted ability to identify, differentiate and verbally express emotions. The aim of this study was to establish whether presence of alexithymia in Behçet patients.

MATERIAL AND METHODS

Study Design: This study was approved by the institutional ethics committee. All patients were recruited from Dermatology outpatient clinic. After explaining purpose of the study to the patients, those who were willing to participate were enrolled to study.

A total of 50 patients (25 men, 25 women) diagnosed with BD according to the criteria of the International Study Group for Behçet's Disease (14) and 50 age-, sex-, economic status- and education status matched healthy control volunteers (24 men, 26 women) were included.

Exclusion criteria for the patient group were as follows: cognitive impairment,having a psychiatric disease, neurologic involvement and using systemic steroids, having any skin diseases such as psoriasis, vitiligo, alopecia areata related with alexithymia. Exclusion criteria for the control group were as follows: cognitive impairment,having a psychiatric disease, neurologic involvement, having any skin diseases such as psoriasis, vitiligo, alopecia areata related with alexithymia. Patients and healthy controls were evaluated with Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI) and Turkish version of TAS-20.

BDI is a self-rating 5 point-Likert-type scale consisting of 21 items which evaluates the level of depression (15).The Turkish version of the scale was reliable and valid and used for the study. The test was scored as 0-9= Minimal, 10-16= Mild, 17-29= Moderate, 30-63= Severe depression (16).

BAI is a self-rating 5 point-Likert-type scale composed of 21 items of anxiety (17). Each question is rated from zero to three points. The Turkish version of the scale was reliable and valid and used for the study. The total score shows the level of anxiety (18).

Taylor et al created Toronto Alexithymia Scale (TAS). This is the most reliable measure to evaluate alexithymia (10). The first form has changed and has reached its current state (TAS-20) of 20 items (19). TAS-20 is a self-report scale consisting of 20-items structured by three factors. First factor describes the difficulty in identifying feelings (DIF=TAS-A), second factor is related with the difficulty in describing feelings (DDF=TAS-B), and third one measures the externally oriented thinking (EOT-TAS-C). All items are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with five items negatively keyed. The range of TAS-20 is between 20 to 100, and the score above 61 is defined as alexithymia, whereas below 51 as non-alexithymia. If the score is between 52 and 60, then it can be suggested as intermediate alexithymia. It was shown that Turkish adaptation of the scale is valid and reliable (20).

Statistical Analyses: The analyses were performed by SPSS 11.0 (SPSS Inc., Chicago, IL, USA). Descriptive statistics were calculated and presented as mean ± SD for continuous variables / Median (IQR) for discrete variables, frequency and percentages for categorical variables. Continuous variables were detected by Kolmogrov–Smirnov test whether they are distributed normally. In comparison of two independent groups . Student t-test and Mann-Whitney U test as a non-parametric test were used and Kruskal-Wallis test was used to compare multiple groups. Chi-square test was used to determine the relation between categorical variables. The relationship between depression, anxiety and alexithymia was analyzed by Spearman's Rho correlation test. In all analyses, $p<0.05$ was considered as statistically significant for 5% type-I error.

RESULTS

Patients with BD were evaluated in terms of gender and alexithymia, and it was found that 32% of female and 20% of males had alexithymia, 28% of female, 24% of males had moderate alexithymia. In patients with BD there was no significant difference between alexithymia and gender (*p=0.488*). There was no significant difference between median values of the disease duration in terms of alexithymia status of patients with BD (*p=0.588*). Other sociodemographic features of patients were shown on Table 1.

Table 1 The comparison of sociodemographic features of patients with BD and controls in terms of control variables

	BD patients	**Control**	*p*
Age (Mean±SD)	37.7±11.8	36.4±11.4	*0.566*
	n (%)	**n (%)**	
Sex			
Female	25 (50)	26 (52)	*0.841*
Male	25 (50)	24 (48)	
Education			
Primary school	22 (44)	18 (36)	
Secondaryschool	9 (18)	9 (18)	
High school	15 (30)	17 (34)	*0.819*
University	4 (8)	6 (12)	
EconomicStatus(TL)			
≤500	3 (6)	5 (10)	
500-1500	40 (80)	41 (82)	*0.514*
≥1500	7 (14)	4 (8)	

BD:Behçet Disease

TAS is the important classification method for alexithymia patients and significant difference was found between control and patient groups in terms of TAS-20 scores which is higher in patients' group (*p=0.003*).The comparison of BD patients and controls in terms of TAS, BDI, BAI were in Table 2.

Table 2. The comparison of patients with BD between controls in terms of TAS-20, BDI, BAI

	Patients with BD	**Controls**	
	Mean±SD	Mean ±SD	*p*
TAS-20	50.76±12.69	42.96±12.87	*0.003**
TAS-A	14.50±5.50	12.26±4.58	*0.029**
TAS-B	12.70±3.55	10.68±3.79	*0.007**
TAS-C	23.36±6.49	19.82±7.28	*0.012**
BDI	10.5 (9.00)	7.5 (7.50)	*0.100*
BAI	8.00 (3.00-18.25)	8.00 (3.75-11.00)	*0.374*

**: Significant according to p<0.05 level*

BD:Behçet Disease, SD: standard deviation, TAS-20, TAS-A,TAS-B,TAS-C: Toronto Alexithymia Scale 20, A,B,C, BDI:Beck Depression Inventory, BAI: Beck Anxiety Inventory

The risk of having severe alexithymia in patients was about 6 times more than patients who had no alexithymia(OR = 6.14 (95% CI = 1.58 - 23.91); *p=0.002*),and the ratio was significant. The relationship between patients with BD and controls in terms of alexithymia are shown in Table 3. There was no statistically significant difference between median scores of BDI (*p=0.100*) and BAI (*p=0.374*) between patient and control groups.

Table 3. The relationship between patient with BD and controls in terms of subtypes of alexithymia

Alexithymia	**Behçet Disease Patients (n)**	**Controls (n)**	**OR (95% CI)**	***p***
None	24	34	1	- - -
Moderate	13	13	1.42 (0.56-3.59)	*0.108*
Severe	13	3	6.14 (1.58-23.91)	*0.002**

*OR: Odds ratio, CI: Confidence Interval, *: Significant according to p<0.05 level*

However, in patient group, BAI scores were significantly higher in severe alexithymia patients than other subgroups of alexithymia (*p=0.019*) whereas BDI scores were similar in subgroups and with control group (*p=0.238*).

Moreover, we have calculated the correlation coefficients between depression, anxiety and alexithymia scores in BD patients. We found that there was a moderate positive correlation between Behçet's disease and anxiety (r=0.69, *p<0.001*), weak correlation between depression and alexithymia (r=0.33, *p=0.020*), weak association between anxiety and alexithymia (r=0.30, *p=0.037*).

DISCUSSION

Recurrent oral ulcers, ocular involvement, genital ulcers, and skin lesions are main symptoms of BD, and Behçet disease is chronic, multisystemic inflammatory disorder. Arthritis, gastrointestinal lesions, vasculitis, epididymitis, and central nervous system lesions are the other manifestations of BD patients (21). Studies reporting the relationship between BD and anxiety, depression are available in literature (22). Alexithymia is a personality disorder of cognitive function and emotional disturbance and described as the state of being alienated at the level of which one cannot express himself or herself. There are a few studies in the literature evaluating the relationship between BD and alexithymia. We found that BD is strongly associated with alexithymia. In our study; the risk of having severe alexithymia in BD patients was about 6 times more than patients who had no alexithymia and this ratio was significant. In a study; investigators applied TAS-26 scale to 34 BD patients and they found the scores significantly different between patients with BD and controls, also Hamilton depression scale (HAM-D) and BAI scores were significantly different. The stress–immune system axis is important for BD. The remission and relapse period of the disease results damage in the functions of various systems of BD patients. In the progressive course from stress to illness, life events can be a stimulatory factor in promoting the disease by impairing homeostasis. So, because of these patients need to adapt themselves secondarily to situation. In this time coping mechanisms are important (23). Stress is the main cause of anxiety and depression (24). Berthozet al. showed a positive and significant correlation between the level of alexithymia and the state anxiety in their study among 144 university students. It has been argued that reduction in anxiety may cause a reduction in alexithymia and alexithymia has developed a protective defensive mechanism against pain and disturbing feelings (25). Karukiviet al. found a correlation between alexithymia and anxiety, and the patients with anxiety disorders tend to become alexithymic to prevent disturbing bodily sensations (26). Our study showed no difference between patients and controls for anxiety and depression but BAI scores were significantly higher in severe alexithyhimic patients than other subgroups of alexythimia. So; we evaluated if there were linear association with Behçet's disease patients' depression, anxiety, alexithymia parameters or not. We found that there was a moderate linear association with BD and anxiety, mild association between depression and alexithymia, mild association between anxiety and alexithymia. This may be similar to the literature but our patient group sample size was smaller. If we had studied this topic in a larger group, we could find the same association as the literature. So; we thought alexiyhmia is more related with anxiety than depression in Behçet disease. And treatment of anxiety will help to reduce alexithymia in BD patients.

Alexithymic people are not successful to regulate distressing emotions, and hence, this case causes irritated responses in the neuroendocrine and autonomic system due to some somatic diseases. Many researchers working on this issue tried to determine the physiological pathways of alexithymia, but consistent results have not been achieved (27). However, it is clear that alexithymia patients having difficulty to overcome the stress are at risk of the emerging dermatologic diseases. We found that there was no significant difference in median values of the disease duration and alexithymia status of patients with BD. Therefore, we think that the duration of the disease isn't playing a role in alexithymia process but stress of being BD or severity of disease may play a role in alexithymic people.

Talamonti et al; evaluated the relationship between psoriasis and alexithymia in 250 psoriasis patient and 215 healthy individuals with TAS-20 scale. According to this study psoriasis patients had significant alexithymia features (32.4 vs. 9.3%), and there wasno significant differences between alexithymia and patients with severe and mild psoriasis (13).Korkoliakou et al. evaluated 108 psoriasis patients with TAS- 20 and reported that there is a relationship between psychopathology and alexithymia. They found that female patients with psoriasis had higher somatization, depression, anxiety, phobic anxiety, and psychoticism scores compared to male patients. The significance of alexithymia understood because of alexithymia patient's presentation. They have higher somatization, interpersonal sensitivity, anxiety, and phobic anxiety levels than non-alexithymia patients (29). Sellami et. al. found no significant differences between alopecia areata (AA) and alexithymia prevalence and the control group, but overall alexithymia prevalence was high. They reported that this study had no clear results about a possible relationship between alexithymia and AA and they suggested that this topic required more studies to clarify this association between two disease (14).Vitiligo is another dermatologic disease that

was evaluated for alexithymia. A study, performed by Picardi et al. on vitiligo patients, showed that TAS-20 scores of patients were significantly higher than control cohort and the number of alexithymia patients in severe and moderate classifications are higher almost twice than in vitiligo patients (30). Bozkurt et al. found a significantly greater rate of alexithymia in patients with seborrheic dermatitis compared with controls according to TAS-20 (31). In contrast to these results; Sunay et al. evaluated association acne vulgaris with alexithymia and they reported that there was no relationship between acne vulgaris and alexithymia (12). Cömert et al. didn't find any statistically significant difference in the average of alexithymia scores between the seborrheic patient and control groups. However, patients with high anxiety scores were found to be more alexithymic in this study (32). Moreover, our results showed patients with BD had severe or moderate alexithymia six times higher than controls according to TAS-20 scores. According to literature review, this is the first study evaluating the relationship between BD and alexithymia with TAS-20.

We found significant difference between patients with BD and controls regarding alexithymia TAS-20 scores and subgroups of TAS-A, TAS-B, TAS-C. Patients with BD significantly had higher scores than controls on TAS-20, and odd's ratio of severe alexithymia patients had nearly six times higher than the patients in reference category.

CONCLUSION

We found that Behçet's disease is strongly associated with alexithymia. Because of this BD patients require a more detailed examination for psychiatric status, and further studies are required to find possible association of alexithymia and Behçet disease. Alexithymia is an antecedent thing or a consequence thing in the development of Behçet disease. The results show that a psychiatric evaluation and the treatment of alexithymia is important in early follow-up of BD patients. The treatment of psychiatric disorders may also affect the tolerance of stress in these patients to reduce relapses. We think that psychiatric symptoms can accompany BD because of its long term clinical course. These patients must take appropriate psychotherapeutic interventions

Limitations: If we enrolled two- or three-fold higher BD patient and control group there may be a difference of anxiety and depression scores. In this study, we didn't calculate the disease activity index. Severity of disease may play a role in being alexithymic individual..

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