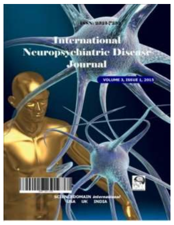

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Evaluation of Alexithymia in Patients Admitted to the Dermatology Clinic

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Authors' contributions

This work was carried out in collaboration between all authors. Author PO designed the study and wrote the protocol. Author SDK managed the literature search and author AHA wrote the first draft of the manuscript. Author BC collected the control groups. Author HU preformed the statistical analysis. All authors read and approved the final manuscript.

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ABSTRACT

Background and Aim: Alexithymia has been suggested to be an important symptom in psychodermatological patients. Our study aims to evaluate alexithymia by diseases groups in patients who were admitted at the dermatology clinic.
Materials and Methods: The Toronto Alexithymia Scale was used on 150 patients, aged 15-75 years, who were admitted to the Dermatology Clinic and 100 age-sex matched controls, without any skin disease, among the admissions to general surgery clinic. The patients were divided into 5 groups based on diagnoses. A $p<0.05$ was considered significant in all tests.
Results: While the overall alexithymic score in all patients was 51.27±10.71, these values were 45.30±7.50 in the healthy group, with the difference being statistically significant ($p \le 0.001$). While 56.7% of the patients were not alexithymic, 23.3% were diagnosed to have borderline alexithymia,

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and 20% alexithymia. And in the control group, alexithymia borderline was found in 11 out of 100 persons (11%). The patients were classified into Group 1 Acne vulgaris 28%, Group 2 papulosquamous diseases 10%, Group 3 infectious skin diseases 16.7%, Group 4 dermatitis 14.7%, and Group 5 other diseases 30.7%. While there was no statistically significant difference between these values, (TAS-B) difficulty identifying emotions was found to be statistically low (p=0.04) in the dermatitis group.

Conclusion: Some skin diseases may increase alexithymia or some dermatological diseases may predispose to alexithymia. Further studies with larger patient profiles organized in more specific groups are needed in order to elucidate possible alexithymia in the etiopathogenesis of dermatological diseases.

Keywords: Dermatological patients; alexithymia; Toronto Alexithymia Scale.

1. INTRODUCTION/PURPOSE

The effects of dermatological diseases on the emotional, social and mental structure of an individual can be different from and more complicated than other diseases as they affect the outer appearance. Recent studies have demonstrated that psychological factors are effective in skin diseases as well as stress, mood, anxiety disorders, social support and personality traits [1,2]. A wide range of skin diseases can be triggered or exacerbated by psychological stress. Recent studies have presented strong evidences showing a local neuroendocrine skin axis serving as a "brain-skin" connection [3].

The relationship of physical wellbeing and skin diseases can be studied in three groups:

1. As a symptom of emotional diseases,
2. Skin diseases caused by a person's psychological wellbeing,
3. Situations where organic diseases and emotional factors coexist [4,5].

Alexithymia has been suggested to be an important symptom in psychodermatological patients. By definition, alexithymia is the inability to recognize and verbalize emotions. It has been characterized as an emptiness of feelings, poverty of imagination or of a fantasy life, difficulties in communicating with other people, as well as a lack of positive emotions, and a high prevalence of negative emotions [6-8]. These individuals are highly predisposed to somatization. They can present with various variable somatic complaints. It is as if they listen to their bodies, and not their emotions. It has been suggested that a majority of psychosomatic patients intellectually fail to verbalize their emotions, that their emotions failed to reach the neocortex, so words were expressed by autonomic means rather than by symbolic communication, that is, they were translated into a kind of organ language [9]. Picardi et al. [10]. have reported in 2007 that it is no surprise to see alexithymia in patients with dermatological diseases. The prevalence of alexithymia was initially measured by Bagby et al. [11] in 1994 using the 20-item version of Toronto Alexithymia Scale (TAS-20) [12]. The Turkish version of TMS-20 has been reported to be validated in 2001 by Sayar et al. [13].

Alexithymia has been evaluated in patients diagnosed with acne, psoriasis, vitiligo, alopecia areata, and chronic idiopathic urticaria among dermatological diseases in studies conducted so far [14-22].

Our study aims to evaluate alexithymia by disease groups in voluntary patients were admitted to the dermatology clinic.

2. MATERIALS AND METHODS

The Toronto Alexithymia Scale was used on 150 patients, aged 15-75, who were consecutively seen in the dermatology outpatient clinic between October 2012 and February 2013. The control group consisted of 100 patients, who were dermatologically healthy, consistent in age, sex and other demographical traits, and admitted to a different outpatient clinic (the general surgery clinic).

The questionnaire included questions such as age, sex, marital status, education, income level, alcohol and smoking habits, and whether psychiatric treatment was sought.

The patients were divided into 5 groups based on diagnoses. Group 1: Acne vulgaris; Group 2: Papulosquamous Diseases: Psoriasis Vulgaris, lichen planus, pityriasis rubra pilaris etc.; Group 3: Infectious skin diseases; 4. Dermatitis:

Contact dermatitis, Atopic dermatitis, seborrheic dermatitis etc.; Group 5: Other: Pigment disorders, Urticaria, Hair diseases, Pruritus, Nail diseases, Connective tissue diseases etc.

2.1 Toronto Alexithymia Scale-20 (TAS-20)

This is a scale of 20 items scored between 1-5 points evaluating alexithymia. Scoring is done by adding up the assigned score to each item. Alexithymic condition is determined based on the resulting score. Scores ≤ 51 are considered non-alexithymia, scores ≥ 52 and ≤ 60 are considered mildly alexithymia, and scores ≥ 61 are considered alexithymia.

It has 3 sub-scales, namely:

Difficulty identifying emotions (TAS-A),
Difficulty verbalizing emotions (TAS-B), and
Externally-oriented thinking (TAS-C).

The respondents are asked to select the most appropriate choice from among “Never”, “Rarely”, “Sometimes”, “Frequently” and “Always” for each item. High scores show high alexithymic levels. The scale has been developed by Bagby et al. It has been tested for validity and reliability in Turkey in 2001 [11-13].

SPSS version 20.0 was used for data analysis. Mann Whitney U-test was used to compare the data between two groups, and Kruskal Wallis test was used to compare data between three or more groups. Descriptive analyses were expressed using mean and standard deviations. Visual (histograms and probability graphs) and analytical methods (Kolmogorov-Smirnov/ Shapiro-Wilk tests) were used to test for normal distribution of variables. Mann-Whitney U test was used to compare constant variables in non-normally distributed analyses. Kruskal-Wallis test was used to compare more than two groups. Chi-square test was used to compare non-continuous variables between the groups. A p value <0,05 was considered to be statistically significant in all tests.

3. RESULTS

The mean age of 150 patients was 32.62±16.37, and 64% were female and 36.0% male. 38.6% of the control group were female and 42.4% were male, with a mean age of 33.29±15.88. The differences between these two groups were not statistically significant. While the overall alexithymic score in all patients was 51.27±10.71, these values were 45.30±7.50 in the healthy group, with the difference being statistically significant (p≤0.001) (Table 1). While the patients’ score of difficulty identifying emotions (TAS-A) was 16.21±5.94, it was 13.46±3.68 in healthy controls. While the patients’ score of difficulty verbalizing emotions (TAS-B) was 12.76±3.68, it was 11.15±2.74 in the control group. While the patients’ score of externally-oriented thinking (TAS-C) was 22.29±3.68, it was 20.69±3.16 in the control group. There was a statistically significant difference in all three dimensions of alexithymia.

While 56.7% of the patients were not alexithymic, 23.3% were diagnosed to have borderline alexithymia, and 20% alexithymia. That is to say, 43.3% of the patients had borderline alexithymia. And in the control group, alexithymia borderline was found in 11 out of 100 persons (11%). And the patients were classified into Group 1 Acne vulgaris 28%, Group 2 papulosquamous diseases 10%, Group 3 infectious skin diseases 16.7%, Group 4 dermatitis 14.7%, and Group 5 other diseases 30.7%. A separate review of the patient groups showed the alexithymic score in Group 1 with acne vulgaris to be 50.61+10.87, 51.00+14.06 in Group 2 with papulosquamous diseases, 55.84+11.84 in Group 3 with infectious skin diseases, 47.54+10.59 in Group 4 with dermatitis and 51.26+8.07 in Group 5 with other diseases (Tables 2 and 3). While there was no statistically significant difference between these values, (TAS-B) difficulty identifying emotions was found to be statistically low (p=0.04) in the dermatitis group.

Disease periods were divided into 3 groups: 0-1 months, 2-6 months, and over 6 months. The percentage of group 1:44%, group 2:18.7% and group 3: 37.3%. Alexithymia scores were 54,12+10,66 in Group 1, 51,14+14,08 in Group 2, and 48,98+11,84 in Group 3 and the difference between these groups were statistically significant. There was also a statistically significant difference (p=0.02) between the scores in difficulty identifying emotions in Group 1.

4. DISCUSSION

Cutaneous Sensory Disorder (CSD) represents a heterogeneous clinical situation where the patient presents with either disagreeable skin sensations (ie, itching, burning) or pain (ie, allodynia) and/or negative sensory symptoms (ie hypoaesthesia). These patients have no apparent diagnosable dermatologic or medical condition that explains the cutaneous symptom, and typically have negative findings upon medical workup. Skin regions that normally have a greater density of epidermal innervation tend to be more susceptible to the development of CSD. Somatization and dissociation can play a central role in the pathogenesis of CSDs. A review of the literature suggests that CSDs represent a complex, and often poorly understood interplay between neurobiological factors associated with neuropathic pain, neuropathic itch and neurologic/neuropsychiatric states. These neurologic/neuropsychiatric states can modulate pain and itch perception by potentially affecting the pain and itch pathways at a structural and/or functional level [23].

Our study compared the groups with and without a dermatological diagnosis for their alexithymia symptoms, with the aim of revealing the relationship of different dermatological diseases with the level of alexithymia. There is a large literature and consensus about skin diseases and psychological morbidity. A study by Aksu et al. [24] has reported a high rate of psychiatric morbidity in 25% of 2579 patients who admitted to the dermatology clinic. In another study psychological problems has been reported in 60% of hospitalized patients, and 30% of outpatients of dermatology clinics [25].

Few studies have been conducted so far to evaluate alexithymia in dermatological diseases [4,26,27]. Multiple factors including genetic factors, neurobiological deficiencies-problems, and differences in brain organization play roles in the etiology of alexithymia. A study by Sunay et al. [14] has investigated the relationship of acne vulgaris patients and alexithymia, and found no statistically significant meaning in alexithymia scores between acne patients and the control group. Our acne patients had a score of 50, 61, and although this was similar to the values in this study, the values were statistically significantly higher compared with our control group.

Table 1. Patients'and controls' demographical datas

	Patient (n: 150)	Control (n: 100)
Age*	32.62±16.37	33.29±15.88
Sex*	64.7% female 35.3% male	62.4% female 37.6% male
Marital Status*	48.0% married 52.0% single	45.0% married 55.0% single
Occupation*	26.7% housewife 19.3% employee 39.3% student 14.7% unemployed	30.0% housewife 18.2% employee 40.8% student 11% unemployed
Education*	44.7% primary school and lower 24.7% high school 30.7% higher education	42% primary school and lower 22.8% high school 35.2% higher education
Economic Status*	3.3% poor 78.7% normal 18% good	5% poor 80% normal 15% good
Smooking*	10%	7.3%
Alchocol use*	3.3%	3%

**: p value >0.05*

Table 2. Patients'and controls' alexithymia values

	Patients groups	Control groups	P value
Alexithymia rates	Non-alexithymia 56.7% 23.3% borderline alexityhimia 20% alexithymia	Non-alexithymic 89% 11% Borderline alexithymia -	P<0.05
Alexithymia scores (total)	51.27±10.71	45.30±7.50	**p<0.001**
TAS-A	16.21±5.94	13.46±3.68	P<0.05
TAS-B	12.76±3.68	11.15±2.74	P<0.05
TAS-C	22.29±3.68	20.69±3.16	P<0.05

TAS-A: Toronto Alexithymia Score-A;TAS-B: Toronto Alexithymia Score-B; TAS-C: Toronto Alexithymia Score-C

The study by Masmoudi et al. [15]. evaluated alexithymia in psoriasis patients and found that the disease did not cause alexithymia by itself only, but together with a psychological disorder, e.g. alcohol addiction These findings are supported in another study recruited among psoriatic patients, which demonstrated depressive features, not alexithymic or anxious. It has also been found that the patient's state of anxiety was continuous and their means of expressing anxiety was related particularly with the emotional dimension of alexithymia [28].

Table 3. Alexithymia scores by patient groups and controls

Patients subgroups	Alexithymia scores
Group 1: Acne Vulgaris	50,61
Group 2: Papulosquamous Diseases	51,00
Group 3: Infectious Diseases	55,84
Group 4: Dermatitis	47,54
Group 5: Other Diseases	51,26
Controls	45.30

An evaluation of alexithymia in alopecia areata, a hair disease, revealed a higher rate of alexithymia in adult alopecia patients. And the scores were significantly lower in patients with higher education level [16]. In our study, there were no significant differences between the education levels of the patient and control groups.

There are studies reporting that alexithymia is more common in males as well as studies suggesting that it does not discriminate between sexes [29-31]. In our study, the alexithymia scores did not differ between both gender.

Although the alexithymia scores in patient group were not significantly different according to the proffession, significantly lower scores were yielded in students in the control group. This result can be related with the presence of the means and opportunities by which they can better express their emotions.

43,3% of the patients, and 11% of the control group had borderline alexithymia. This difference showed that the incidence of alexithymia was significantly higher in individuals with dermatological diseases. Further studies are also required to investigate and elucidate this aspect of the etiopathogenesis of dermatological diseases.

While a separate evaluation of patient groups showed a significantly lower score in the dermatitis group, the highest score was found in Group 3. While the difference between these values were not statistically significant, it was found to be statistically low in the (TAS-A) dermatitis group with difficulty identifying emotions. Considering that psychiatric condition also affects immunity, there could also be differences in the sense of predisposition to infections. So, we consider that the psychiatric aspects should also be investigated particularly in the etiopathogenesis of infectious skin diseases.

The study by Ari et al. [32] has observed no statistically significant differences in the severity of anxiety symptoms and the level of alexithymia properties between patients with alopecia areata and the control group. The severity of the patient's depressive symptoms has been found to be statistically significantly high compared with healthy controls. No statistically significant correlation was observed between the severity of depressive symptoms and the duration of existing alopecia areata attack.

Barbosa et al. [33] found that alexithymia was as high (56%) as anxiety in patients with chronic urticaria. No statistically significant difference was found in chronic urticaria between alexithymia and clinical variables. However, they have found a positive correlation between insecure attachment style and psycho-pathological symptoms, and a negative correlation between insecure attachment style and the quality of life.

A study by Bozkurt et al. [34] investigated depression and alexithymia in cases with seborrheic dermatitis (SD). Depressive symptom and trait anxiety and alexithymia levels were found high in the SD group compared with the control group. 36.7% of the SD group and 10.0% of the control group had alexithymia according to TAS. It is remarkable that alexithymia percentages are similar in our control group and in this study. In this study, a positive correlation has been found between alexithymia scores and anxiety levels (trait and state) and the severity of depressive symptoms in the SD group. The relationship of alexithymia with trait anxiety has been reported to be more significant compared with state anxiety.

Table 4. Alexithymia TAS-A, TAS-B, TAS-C scores by patient groups

	TAS-A P value	TAS-B P value	TAS-C P value
Group 1: Acne vulgaris	14.40±4.26 p>0.05	12.46±3.25 p>0.05	21.97±3.23 p>0.05
Group 2: Papulosquamous diseases	15.66±5.86 p>0.05	11.46±3.56 p>0.05	23.06±3.12 p>0.05
Group 3: Infectious diseases	15.80±5.88 p>0.05	12.24±3.67 p>0.05	21.80±3.54 p>0.05
Group 4: Dermatitis	19.27±6.13 P<0.05	13.04±4.24 p>0.05	22.81±3.56 p>0.05
Group 5: Other diseases	17.04±6.65 p>0.05	13.89±4.57 p>0.05	22.34±3.01 p>0.05

Patient population was larger as our study generally focuses on dermatological diseases. It is remarkable that alexithymia scores were higher compared with the control group in all patient groups. Moreover, alexithymia score was found to be low in the dermatitis group, which was not previously considered as a separate group.

Therefore, we recommend that the possible role of alexithymia in the etiology of dermatological diseases should be tested by longitudinal studies.

5. LIMITATIONS OF THE STUDY

Lack of a more specific, homogenous and larger patient group were the limitations of our study.

6. CONCLUSION

It is very important to consider psychological and emotional factors in establishing whether the disease state is psychosomatic or somatopsychic in patients with skin lesions. As dermatological diseases are visual, it should be kept in mind that they could also cause psychological problems in patients, creating risks of an alexithymic personality. Psychological aspects of the disease should not be overlooked by concentrating only on the organic diseases of the patients. One has to be aware that alexithymia score is higher in the period when the patients present with acute symptoms and that it can create problems particularly in verbalizing emotions. It should be noted that the patients will, in time, identify their symptoms, with or without adopting them, thus reducing the problems in verbalizing their emotions. In addition, some dermatological diseases may predispose to alexithymia. Further studies with larger patient profiles organized in more specific groups are needed in order to elucidate possible alexithymia in the etiopathogenesis of dermatological diseases.

CONSENT

All authors declare that written informed consent was obtained from the patient for publication of this study.

ETHICAL APPROVAL

All authors hereby declare that all experiments have been examined and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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