
Psychiatric morbidity and quality of life in patients with chronic idiopathic urticaria

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Background: Chronic idiopathic urticaria (CIU) is a frequently occurring disease that has a great impact on the health-related quality of life (HRQL) of patients and seems to be associated with a number of psychological factors.

Objectives: To determine the prevalence of psychiatric morbidity in patients with CIU and to determine HRQL of CIU patients compared with controls.

Methods: A semistructured interview form, a generic form of the HRQL questionnaire (Medical Outcomes Study 36-Item Short-Form Health Survey [SF-36]), and the Structured Clinical Interview for *DSM-IV* Axis Disorders (SCID-I) were administered to CIU patients who presented to the Allergy Department of the University of Istanbul (from January 1 to April 30, 2005). Healthy subjects matched sociodemographically with the study group were used as the control group.

Results: Eighty-four CIU patients and 75 controls were included in the study. The mean $\pm$ SD age of the study participants was 36.83 ± 10.26 years, and 84% were women. The mean $\pm$ SD duration of the disease was 6.34 ± 7.2 years, and symptoms were intermittent in 51%. The SCID-I revealed a psychiatric diagnosis in 60% of the patients. In terms of the distribution of psychiatric diagnoses, the most frequently occurring diagnosis was depressive disorders (40%). Most patients (81%) believed that their illnesses were due to stress. The subdomains on the SF-36 measurements were significantly lower than those of the control subjects ($P \leq .005$). The physical function, vitality, and mental health subdomains of the SF-36 in the patients with a psychiatric diagnosis were significantly lower ($P < .05$).

Conclusion: These findings suggested that psychiatric morbidity is high among CIU patients and is detrimental to their quality of life.

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INTRODUCTION

Chronic urticaria (CU) is a common skin disorder characterized by recurrent and spontaneously occurring wheal and flares associated with pruritus. The traditional definition of CU is daily or almost daily occurrence of hives for more than 6 weeks, in contrast to acute urticaria, which disappears within less than 6 weeks.^{1,2} CU predominantly affects adults and is approximately twice as common in women as in men. It remains a major problem in terms of etiology, investigation, and management.³

Many studies have shown that CU patients frequently exhibit psychiatric comorbidity.^{4–6} The most common psychiatric diagnoses observed in CU patients are depression, anxiety, and somatoform disorders.⁵ Various studies have reported an association among stress, anxiety, depressive symptoms, and CU.⁷ Urticaria symptoms affect everyday life, limiting and impairing physical and emotional functioning, and act as an indirect burden on life satisfaction, underlining the major impact on quality of life.⁸

So far, in most investigations related to the association between the psychiatric illness and skin disorders, general health questionnaires or patient health questionnaires have been used. In this study, by using the Structured Clinical Interview for *DSM-IV* Axis I Disorders (SCID-I), in addition to the semistructured interview form and the generic health questionnaire (Medical Outcomes Study 36-Item Short-Form Health Survey [SF-36]), we aimed to evaluate the psychiatric morbidity rate more accurately in patients with CU and to examine the impact of the psychiatric state on quality of life. To avoid the concomitant effects of underlying diseases, we included only patients with chronic idiopathic urticaria (CIU). The primary aim of our study was to determine the prevalence of psychiatric morbidity in patients with CIU. The secondary aim was to determine health-related quality of life (HRQL) of the patients compared with a control group. An evaluation was also made as to whether sociodemographics, medical variables, and psychiatric morbidity affected HRQL.

METHODS

Patient Selection

Patients with CIU who met selection criteria among the first attending 350 patients who had applied to the Allergy Department at the University of Istanbul between January 1 and April 30, 2005, were included in the study. The criteria for inclusion in the study were as follows: (1) a diagnosis of CIU, (2) age between 18 and 65 years, (3) lack of any apparent

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psychotic symptom or mental retardation, (4) provision of informed consent, (5) ability to sufficiently read, write, and comprehend the Turkish language, and (6) lack of any comorbid medical disease. A group of healthy individuals with similar sociodemographic properties with the study group was used as the control group for HRQL evaluation. The study was approved by the Ethics Committee of the Istanbul Faculty of Medicine.

Diagnosis of CIU. The diagnosis of CIU was based on the elimination of all the probable causes of CU in the patients who reported recurrent pruritus, wheal, and flares for more than 6 weeks. Exposure to allergenic drugs, foods, insect stings, and chemicals was explored by a detailed history. All the patients had negative skin prick test results with a standard food allergen panel and showed no improvement of their condition after an elimination diet. After a physical examination, peripheral blood cell count, erythrocyte sedimentation rate determination, urine and stool analysis, blood chemical panel (including hepatic enzymes measurement), thyroid hormones measurement, antinuclear antibodies detection, and autologous serum skin tests were performed for the identification of any infectious or chronic autoimmune diseases. Patients who did not meet the diagnostic criteria for a causal illness or type I sensitivity were considered to have CIU.⁶

Identification of disease severity. Patients were asked to rate their disease severity from 0 to 4 on a visual analog scale (0 indicating none and 4 indicating very severe) according to the frequency of hives, the body surface areas involved, and the degree of itching.⁹ Disease severity was also evaluated by an experienced physician in 3 visits with weekly intervals. The physician scored the disease severity as mild (1), moderate (2), or severe (3) based on the frequency, spread, and the number of hives. Combining the patients' and physician's scores, mean scores were obtained for each patient.

Psychiatric Evaluation

A semistructured interview form, including relevant information concerning sociodemographics, data on medical state, patient's knowledge about the illness, personal perception of reasons for the illness, effect of the disease on body image, and sexual life, and the SCID-I were applied.

SCID-I. The clinician version of the SCID-I inventory was used to detect the presence of a psychiatric disorder.¹⁰ Initially designed by First et al,¹¹ it was partially constructed toward assessing *DSM-IV* Axis I diagnoses. It provides not only standardization in the evaluation process but also convenience in use. Translation into Turkish, adaptation to the Turkish setting, and performance of validity and reliability studies has also been done.¹²

HRQL. The participants completed the SF-36 health survey, a generic, widely used questionnaire. It is composed of 36 items corresponding to the following 8 domains: physical function, role limitation–physical, bodily pain, general health, vitality, social function, role limitation–emotional, and mental health.¹³ A validated translation from English into Turkish of the SF-36 was used to evaluate HRQL.¹⁴

Statistical Analysis

The data generated by this study were analyzed with SPSS statistical software, version 12.0, for Windows (SPSS Inc, Chicago, IL). χ^2 tests were used to evaluate the differences between groups for categorical variables.

RESULTS

Eighty-four CIU patients and 75 controls were included in the study. The sociodemographic characteristics of the patient and control groups are given in Table 1. The mean $\pm$ SD duration of the disease was 6.34 ± 7.2 years. Symptoms were intermittent in 51% and persistent in 49% of the patients. According to combined symptom score assessments, disease was severe in 21%, moderate in 63%, and mild in 15% of study participants, although in patient symptom ratings, disease severity was slightly higher ($P < .05$) than physician scoring. A total of 56% of the patients were taking antihistamines, 31% were taking antihistamines plus corticosteroids, and the remaining 13% received no treatment during the study period.

The SCID-I revealed a psychiatric diagnosis in 60% of the patients. The distribution of psychiatric diagnoses is given in Table 2. The most frequently occurring psychiatric diagnosis was depressive disorders (40%).

Seventy-one patients reported that they were not sufficiently informed about the features of the disorder. Most patients (81%) believed that their illnesses were due to stress, 76% of the patients thought that their body images were disturbed in some degrees because of the illness, and 17% of the patients complained that their sexual activities were decreased. The patients who believed that their illnesses were due to stressful events ($P = .01$) and that their body images were severely disturbed because of the illness ($P = .02$) and who complained that their sexual activities were decreased ($P = .01$) received a significantly greater number of SCID-I diagnoses than those in the study not reporting such beliefs or complaints (Table 3).

Table 1. Patient and Control Group Demographic Characteristics^a

Demographic characteristics	Patients (n = 84)	Controls (n = 75)	P value
Sex			.45
Female	71 (85)	60 (80)	
Male	13 (15)	15 (20)	
Education			.70
Primary	40 (48)	32 (43)	
High school	25 (30)	27 (36)	
University	19 (23)	16 (21)	
Marital status			.93
Married	55 (65)	47 (63)	
Single	22 (26)	21 (28)	
Widowed	7 (8)	7 (9)	
Age, mean $\pm$ SD, y	36.83 $\pm$ 10.26	37.92 $\pm$ 13.51	.55

^a Data are number (percentage) of patients unless otherwise indicated.

Table 2. Distribution of the Psychiatric Diagnoses (Structured Clinical Interview for *DSM-IV* Axis Disorders) Among Chronic Idiopathic Urticaria Patients

Psychiatric disorder	No. (%) of patients (n = 84)
No psychiatric diagnosis	34 (40)
Depressive disorder	34 (40)
Anxiety disorder	10 (12)
Somatoform disorder	5 (6)
Bipolar disorder (I and II)	2 (2)
Psychiatric disorder in past	14 (17)

Table 3. Comparison of the Patients' Perceptions Related to the Disease

Perception	No psychiatric diagnosis, No. (%) (n = 34)	Psychiatric diagnosis, No. (%) (n = 50)	P value
Reason for illness			.01
Stress	23 (68)	45 (90)	
Other factors	11 (32)	5 (10)	
Sexual activity after the illness			.01
No change	32 (94)	37 (74)	
Decreased	2 (6)	13 (26)	
Body image after the illness			.02
Not disturbed	10 (29)	10 (20)	
Mildly disturbed	10 (29)	5 (10)	
Moderately disturbed	9 (26)	15 (30)	
Severely disturbed	5 (15)	20 (40)	

No correlations were found between psychiatric diagnosis and disease severity, according to either patient or physician scoring. Similarly, disease activity and duration did not affect the psychiatric diagnosis. The subdimension points of the patients on HRQL were significantly lower than those of the control groups (Table 4). Positive correlations were found between age and social function ($P = .01$; $r = .274$) and age and mental health ($P = .02$; $r = .245$) domains. The scores on physical function ($P = .02$), bodily pain ($P = .03$), vitality ($P = .02$), and role-emotional ($P = .03$) in women were

significantly lower than those of men. No correlations were found between the subdomains of the SF-36 and educational, marital, and economical status. The severity and activity scores of the CIU patients did not correlate with the domains of the SF-36. However, a strong negative correlation was found between the duration of the disease and physical function ($P = .009$; $r = .286$). The physical function, vitality, and mental health subdomains of the SF-36 were significantly low in the patients who received a psychiatric diagnosis (Table 5).

DISCUSSION

In this study, 60% of CIU patients obtained a psychiatric diagnosis according to the SCID-I. Taking into consideration that 7% of these patients had received such a diagnosis only in the past, it was found that the rate of new psychiatric diagnosis was 52%. The rate of psychiatric disorders among patients with chronic physical diseases has been shown to be 29% to 40%.^{15,16} The prevalence of psychiatric disorder in the general population in Turkey has been reported to be between 10% to 20%.^{17,18} Therefore, the psychiatric morbidity in the CU patients in this study was much higher than in the general population. It was also more prevalent than in other chronic illnesses. Frequently, general health questionnaires or patient health questionnaires have been used in the studies performed to evaluate the psychiatric morbidity of those with dermatological diseases. In our opinion, the fact that we used the SCID-I, which is a detailed and established evaluation tool for psychiatric diagnosis, instead of self-rating questionnaires, increases the reliability of the results.

The incidence of psychiatric morbidity has been reported to be high among dermatological patients.¹⁹ Although the prevalence changes because of the methods and features of the patient groups, the estimated rate is 21% to 52% in outpatients²⁰⁻²⁶ and 37% to 60% in inpatients.^{19,20,26} As an important factor, it has been proposed that the dermatologists' ability to recognize mental disorders in dermatological patients is low. Consequently, the necessity of increased clinical attention, screening of these patients with validated questionnaires, participation of consultation-liaison services in the diagnosis, and the treatment of chronic dermatological diseases has been emphasized.^{27,28}

Table 4. Comparison of Health-Related Quality of Life Between Chronic Idiopathic Urticaria Patients and Controls

SF-36 domain	Patients, mean $\pm$ SD (n = 84)	Controls, mean $\pm$ SD (n = 75)	t	P value
Physical function	63.0 $\pm$ 22.4	82.3 $\pm$ 17.9	-5.913	<.001
Role limitation-physical	55.4 $\pm$ 37.6	82.3 $\pm$ 30.6	-4.892	<.001
Bodily pain	61.1 $\pm$ 24.5	72.5 $\pm$ 22.1	-3.008	.003
General health	53.5 $\pm$ 17.8	65.7 $\pm$ 19.4	-4.031	.000
Vitality	53.6 $\pm$ 20.0	63.0 $\pm$ 21.2	-2.839	.005
Social function	67.1 $\pm$ 24.4	82.3 $\pm$ 19.4	-4.223	<.001
Role limitation-emotional	51.0 $\pm$ 43.6	80.8 $\pm$ 33.4	-4.793	<.001
Mental health	55.7 $\pm$ 18.5	67.6 $\pm$ 17.9	-4.036	<.001

Abbreviation: SF-36, Medical Outcomes Study 36-Item Short-Form Health Survey.

Table 5. The Impact of Psychiatric Diagnosis on Health-Related Quality of Life

SF-36 domain	No psychiatric diagnosis, mean $\pm$ SD (n = 34)	Psychiatric diagnosis, mean $\pm$ SD (n = 50)	P value
Physical function	70.3 $\pm$ 17.5	58.3 $\pm$ 24.0	.01
Role limitation–physical	63.6 $\pm$ 34.8	50.0 $\pm$ 38.7	.12
Bodily pain	66.3 $\pm$ 23.5	57.5 $\pm$ 24.8	.13
General health	56.8 $\pm$ 18.8	51.2 $\pm$ 16.9	.17
Vitality	61.3 $\pm$ 19.9	48.3 $\pm$ 18.4	.003
Social function	68.9 $\pm$ 21.4	65.9 $\pm$ 26.5	.60
Role limitation–emotional	56.5 $\pm$ 42.8	47.3 $\pm$ 44.2	.35
Mental health	60.9 $\pm$ 19.3	52.1 $\pm$ 17.3	.03

Abbreviation: SF-36, Medical Outcomes Study 36-Item Short-Form Health Survey.

Various dermatological disorders, particularly psoriasis, atopic dermatitis, alopecia areata, and acne, are comorbid with psychiatric disorders and exacerbated by psychosocial stress.²⁹ Whether psychiatric disorders are the primary factors in these patients or, alternatively, might arise as psychosocial consequences of underlying dermatological disorders has been debated.⁴ Because of the high frequency of psychological symptoms, some authors strongly suggest a complementary psychological treatment and even hypnosis for those patients.³⁰ Only a single study has shown the suppression of urticaria by long-term combination therapy with psychotropics.³¹

In recent years, a few studies have focused on psychiatric morbidity in CU in particular.^{4,23,32} Many authors have considered psychological stress and emotional disturbances to be frequent in patients with CU.^{5,33–36} Similarly, as in other dermatoses, whether psychiatric conditions predispose an individual to developing CU or emerge during CU has not yet been determined for sure. Considering that CU is not a disease that impairs the appearance as much as psoriasis, atopic dermatitis, or acne does, causes pain such as in chronic painful diseases, or is a life-threatening situation such as cancer or heart disease, it hardly seems that it would cause such a high rate of psychiatric disorder. Accordingly, the dominant view is that CU may be triggered by psychological factors and persists as a vicious circle. In fact, most patients in our study reported that they had experienced an important stressful event before the onset of their diseases. The possibility of a causal influence of emotional stress, especially of stressful life events, on the course of various skin diseases has long been postulated.³⁷ In atopic dermatitis, stress has been associated with the onset of the condition in up to 70% of cases.²⁹ In addition, psoriasis has been noted to be one of the most stress reactive dermatoses. Evidence is accumulating to indicate that stress might play a crucial role in the pathogenesis of urticaria as well. Yang et al³⁸ proposed that stress is an important risk factor for the development of CIU. Whether underlying depressive disease or personality trait increases

stress perception and also the onset of CU remain matters of debate.

On the other hand, many studies have shown that CU greatly affects patients' quality of life. In some of these studies,^{8,39–41} a generic HRQL scale such as the SF-36 has been used, whereas disease-specific questionnaires specifically designed for CU have been applied in recent evaluations.⁴² In our study, we found that the HRQL of CU patients was significantly affected in all domains of the SF-36. In patients who received a psychiatric diagnosis, HRQL impairment was higher than in those without one. Likewise, recently it was shown that psychiatric comorbidity significantly increases HRQL impairment in CU patients.⁴ Picardi et al²⁸ found that quality of life in dermatological patients was a strong predictor for psychiatric comorbidity.

In conclusion, this study confirmed that psychiatric morbidity is high among CIU patients. The most striking findings of this study were as follows: (1) an important proportion of the patients had received a psychiatric diagnosis in the past, (2) current psychiatric morbidity was higher in the patient group compared with those with other chronic illnesses, (3) most of the patients emphasized that some stressful events preceded their illness, and (4) HRQL is highly affected in CIU patients, especially those with psychiatric disorders. These findings suggested that an interdisciplinary approach that combines dermatological and psychiatric treatments is necessary for the management of CIU. The effects of consultation-liaison services in addition to the psychiatric treatments in the management of CIU patients must be studied extensively.

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