

Short communication

Axis I and Axis II diagnoses in patients with chronic idiopathic urticaria

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Received 30 April 2007; received in revised form 9 August 2007; accepted 9 August 2007

Abstract

Objective: This study presents the current prevalence of Axis I and Axis II psychiatric diagnoses and factors associated with the existence of Axis I psychiatric disorders in patients with chronic idiopathic urticaria (CIU). **Method:** The study sample was composed of 89 patients with CIU and 64 control subjects. Axis I and Axis II psychiatric disorders were ascertained by means of the Structured Clinical Interview for *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* and the Structured Clinical Interview for *DSM, Revised Third Edition* Personality Disorders, respectively. **Results:** Of patients with CIU, 44 (49.4%) had at least one Axis I diagnosis, and 40 (44.9%) had at least one personality

disorder. The most common Axis I disorder was obsessive–compulsive disorder (25.8%), and the most common Axis II disorder was obsessive–compulsive (30.3%) personality disorder in patients with CIU. Obsessive–compulsive disorder, major depression, obsessive–compulsive and avoidant personality disorders were more prevalent in patient group compared to control group. Obsessive–compulsive and avoidant personality disorders were related to the existence of Axis I disorders in patients with CIU. **Conclusion:** Psychiatric morbidity seems to be a frequent healthy problem in patients with CIU.

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Keywords: Chronic urticaria; Psychiatric disorders; Anxiety; Depression; Personality disorders

Introduction

Urticaria is characterized by the rapid appearance of itchy wheals with duration of usually 1–24 h [1]. It has diverse presentations ranging from occasional localized wheals to widespread recurrent whealing with angioedema. Its recurrent form during at least 6 weeks is defined as chronic urticaria (CU) [2]. Possible causes such as physical causes, infections, drugs, foods, or vasculitic diseases cannot be identified in three fourths of patients with CU, and these cases are diagnosed as chronic idiopathic urticaria (CIU) [3]. It appears to be not only a dermatological disease but also an important medical illness evidently impairing quality of life of persons [4,5].

Similar to other medical illnesses such as Behçet's disease [6,7], multiple sclerosis [8], rheumatoid arthritis [9,10], and chronic pulmonary disease [11], patients with CU are more depressed and anxious compared to healthy controls [12]. In

addition, most of the patients experience a stressor life event before onset of cutaneous symptoms [13].

There are few available data regarding prevalence of psychiatric disorder in CU. Recently, Staubach et al. [4] reported that 48% of patients with CU have at least one psychiatric disorder. They also noted that psychiatric morbidity was associated with more reduced quality of life in patients with CU. In some other way, successful treatment of psychiatric disturbances in patients with chronic medical illnesses [14,15] have a positive influence on patients' quality of life. For this reason, to know the prevalences of and risk factors related to psychiatric disorders in patients with CIU seems to be important. However, the data on these topics are inadequate.

Some authors reported that subjects with CU have significantly interpersonally sensitive, more hysteric, depressive, and suspicious personality traits compared to healthy controls [16]. Nevertheless, information related to prevalences of personality disorders in CU patients has remained insufficient.

The objectives of this study were to examine the current prevalence of Axis I and Axis II diagnoses in CU patients

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and to examine factors associated with the existence of Axis I psychiatric disorders in these patient group.

Method

A total of 89 consecutive patients with CIU who were admitted to Dermatology Outpatient Clinic of Research and Training Hospital of Selçuk University were included in the study. Illiteracy, accompanying severe medical illnesses such as uncontrolled endocrine abnormalities; cardiovascular, central nervous system, and pulmonary system diseases; and corticosteroid and psychotropic medications within the last 4 weeks were exclusion criteria. Moreover, patients who suffered from urticaria induced by physical, allergic, infectious, drug-related, or vasculitic causes and patients with pseudoallergic or autoreactive causes (autologous serum skin tests recorded positive) were excluded from this study. The control group was composed of 64 hospital personnel and their relatives who were matched for socio-demographic characteristics of patients with CIU. They had the same exclusion criteria those of the patient group.

Initially, objectives and procedures of the study were explained to all participants, and written informed consent forms were provided. Subsequently, sociodemographic characteristics of the participants were obtained, and disease activity was assessed by urticaria activity scores (UAS), which is a scoring system used by some authors previously [17]. The UAS ranged from 0 to 42 for a week according, to wheal numbers and severity of itch. Finally, the participants were referred to a psychiatrist for psychiatric interview. Axis I and Axis II psychiatric diagnoses ascertained by means of the Structured Clinical Interview for *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)* (SCID-I) [18] and the Structured Clinical Interview for *DSM, Revised Third Edition* Personality Disorders [19], respectively. Both interview instruments had been standardized for a Turkish population [20,21].

All statistical analyses were performed using SPSS (Statistical Package for the Social Sciences), version 13.0, for Windows (SPSS Inc., Chicago, IL, USA). Differences with regard to continuous variables, $\geq 3 \times 2$ categorical variables, and 2×2 categorical variables between comparison groups of CIU patients vs. control subjects, and CIU patients with Axis I diagnoses vs. CIU patients without Axis I diagnoses were analyzed using Mann–Whitney *U* test, chi-square test, and Fisher's Exact test, respectively. All statistical significance levels were accepted as $P < .05$ at the two-tailed.

Results

There was no significant difference for age ($z = -0.648$, $P = .517$), gender (Fisher's Exact test, $P = 1.000$), education ($\chi^2 = 0.173$, $P = .917$), employment status (Fisher's Exact test, $P = .868$), and marital status ($\chi^2 = 0.703$, $P = .704$) between

patient and control group. The mean duration of illness was 28.24 ± 47.09 months in patient groups.

Table 1 shows prevalence rates of Axis I diagnoses in patient and control groups. Forty-four (49.4%) of patients with CIU met the criteria at least one Axis I psychiatric disorder according to SCID-I. Among the patients, the most common psychiatric disorder was obsessive–compulsive disorder (25.8%) followed by major depression (13.5%), dysthymic disorder (9.0%), and social phobia (9.0%). As shown in Table 2, patients with CIU had significantly higher frequency of any Axis I disorder, any mood disorder, any anxiety disorder, and specifically, obsessive–compulsive disorder and major depression. Prevalences of other specific Axis I diagnoses was not different between the groups.

Forty (44.9%) patients with CIU had any personality disorder. Obsessive–compulsive (30.3%) and avoidant (18.0%) personality disorders were most prevalent in patients with CIU, and these Axis II diagnoses were significantly more frequent in patients compared to controls. Schizotypal, schizoid, borderline, and antisocial personality disorders were not identified in the study groups (Table 1).

We found no difference between CIU patients with and without Axis I psychiatric disorder in terms of age, disease duration, gender, educational level, marital status, employment status, and UAS score. Compared to CIU patients

Table 1
Axis I and Axis II diagnoses in patient and control groups

	Patient group (n=89)	Control group (n=64)	P value ^a
Axis I diagnoses			
Major depression	12 (13.5)	2 (3.1)	.044
Dysthymic disorder	8 (9.0)	1 (1.6)	.080
Bipolar disorder	– (–)	– (–)	–
Panic disorder	2 (2.2)	1 (1.6)	1.000
Obsessive–compulsive disorder	23 (25.8)	1 (1.6)	.000
Social phobia	8 (9.0)	2 (3.1)	.194
Specific phobia	7 (7.9)	2 (3.1)	.305
Posttraumatic stress disorder	1 (1.1)	– (–)	1.000
Generalized anxiety disorder	7 (7.9)	2 (3.1)	.305
Somatiform disorders	– (–)	– (–)	–
Eating disorders	– (–)	– (–)	–
Any mood disorder	18 (20.2)	3 (4.7)	.008
Any anxiety disorder	39 (43.3)	7 (10.9)	.000
Any Axis I disorder	44 (49.4)	8 (12.5)	.000
Axis II diagnoses			
Avoidant	16 (18.0)	3 (4.7)	.014
Dependent	3 (3.4)	2 (3.1)	1.000
Obsessive–compulsive	27 (30.3)	2 (3.1)	.000
Passive–aggressive	3 (3.4)	1 (1.6)	.640
Paranoid	2 (2.2)	– (–)	.510
Schizotypal	– (–)	– (–)	–
Schizoid	– (–)	– (–)	–
Histrionic	5 (5.6)	1 (1.6)	.402
Borderline	– (–)	– (–)	–
Narcissistic	1 (1.1)	– (–)	1.000
Antisocial	– (–)	– (–)	–
Any Axis II disorder	40 (44.9)	9 (14.1)	.000

^a Fisher's Exact test.

Table 2

Sociodemographic characteristics and Axis II diagnoses in CIU patients with and without Axis I psychiatric disorder

	Patients with Axis I psychiatric disorder (n=44)	Patients without Axis I psychiatric disorder (n=45)	P value
Age (mean $\pm$ S.D.) (years)	36.84 $\pm$ 12.90	32.48 $\pm$ 11.14	.118 ^a
Gender [n (%)]			
Female	30 (68.2)	32 (71.1)	.820 ^b
Education [n (%)]			.554 ^c
Primary school	25 (56.8)	22 (48.9)	
Secondary school	13 (29.5)	13 (28.9)	
University	6 (13.6)	10 (22.2)	
Marital status [n (%)]			.552 ^c
Single	9 (20.5)	13 (28.9)	
Married	34 (77.3)	30 (66.7)	
Widowed, divorced, or separated	1 (2.3)	2 (4.4)	
Employment status [n (%)]			.086 ^b
Unemployed	30 (68.2)	22 (48.9)	
Duration of illness, (mean $\pm$ S.D.) (months)	31.59 $\pm$ 55.08	24.97 $\pm$ 38.04	.912 ^a
UAS score	23.36 $\pm$ 5.34	22.13 $\pm$ 4.77	.301 ^a
Axis II diagnoses			
Avoidant	12 (27.3)	4 (8.9)	.029 ^b
Dependent	2 (4.5)	1 (2.2)	.616 ^b
Obsessive–compulsive	20 (45.5)	7 (15.6)	.003 ^b
Passive–aggressive	1 (2.3)	2 (4.4)	1.000 ^b
Paranoid	2 (4.5)	– (–)	.242 ^b
Schizotypal	– (–)	– (–)	–
Schizoid	– (–)	– (–)	–
Histrionic	3 (6.8)	2 (4.4)	1.000 ^b
Borderline	– (–)	– (–)	–
Narcissistic	1 (2.3)	– (–)	0.494 ^b
Antisocial	– (–)	– (–)	–
Any axis II diagnosis	24 (54.5)	16 (35.6)	0.090 ^b

^a Mann–Whitney *U* test.^b Fisher's Exact test.^c χ^2 Test.

without Axis I psychiatric diagnosis, CIU patients with Axis I diagnosis had significantly more frequent avoidant and obsessive–compulsive personality disorders (Table 2).

Discussion

In our sample, while any Axis I psychiatric disorder was determined in nearly half of patients with CIU, this percentage was only 12.5% in control subjects. Moreover, epidemiological studies suggest that current any Axis I psychiatric disorder have estimated prevalence with approximately 8.5–16.7% in the general population [22–24]. Therefore, our results suggest that patients with CIU attending a dermatology outpatient clinic have more frequent mental disturbances compared to general population. There are limited data about psychiatric disorders in patients with urticaria, and the available data mostly include patients with CU rather than CIU. Also, some previous studies were conducted among inpatients. For this reason, to compare results of our study and other studies is difficult. Picardi et al. [25] reported 34.5% prevalence rate of psychiatric morbidity

defining by the 12-item General Health Questionnaire in outpatients with urticaria. Similar to our results, Staubach et al. [4] found 48% this frequency in a study including hospitalized patients with CU and based on a structured diagnostic interview. However, the rates of depressive (11%) and anxiety disorder (25%) were lower in Staubach et al. [4] study than our rates.

In this study, overall prevalence of anxiety and mood disorders were significantly higher in patients with CIU than control subjects. We found no report including a comparison of prevalence rates of anxiety and mood disorders according to *DSM-IV* criteria [26] on basis a structured clinical interview between control and patient groups. In addition, the studies reported that not only patients with CIU but also patients with other dermatological diseases have frequent Axis I diagnoses with overall prevalence rates of 25–37% [25,27].

An interest finding of the present study is that the most frequent Axis I disorder is obsessive–compulsive disorder (25.8%) in patients with CIU. Consistently, Sukan and Maner [28] found 22% prevalence rate of this disorder in outpatients with CU. Moreover, several studies reported that frequency of obsessive–compulsive disorder among patients attending a dermatology outpatient clinic was 14–24.7% [29,30]. Contrary to our results, in patients with CU, dysthymic disorder was most prevalent psychiatric diagnosis with prevalence rate of 46% in study by Sukan and Maner [28]. In our sample, this disorder had only frequency of 9.0%, and it was not significantly higher than controls.

Another more frequent Axis I disorder in our patients with CIU compared to controls was major depression with current prevalence rate of 13.5%. Sukan and Maner [28] reported none of patients with CU had current major depression, but 32% of those had past major depression.

We found prevalence rate of any Axis II disorder as 44.9% in patients with CIU and 14.1% in control subjects. The large scale epidemiological studies reported 5.3–14.8% prevalence rates of any personality disorder in general population [24,31,32]. Our results suggest that a considerable rate of patients with CIU attending a dermatological outpatient clinic have personality disorder. In addition, frequencies of obsessive–compulsive and avoidant personality disorders detected by our in patients with CIU are higher than estimated in general population (0.9–7.88% for obsessive–compulsive personality disorder, 1.8–5.2% for avoidant personality disorder) [30–33].

There are no adequate data about factors associated with Axis I psychiatric disorders in patients with CIU. In a sample of dermatological outpatients, Picardi et al. [25] found higher prevalence of psychiatric disorders in women and in widows. We found no association between Axis I psychiatric disorders and gender, marital status, age, and educational level. In addition, our results suggest that Axis I diagnoses unrelated to urticarial disease activity. However, in the current study, avoidant and obsessive–compulsive

personality disorders significantly associated with presence of Axis I psychiatric disorders. The fact that both personality disorders are frequently comorbid with major depression and obsessive–compulsive disorder [34–37], which is the most common Axis I psychiatric diagnoses in our patient group, may be an explanation for this result. In addition, personality disorders may affect the onset of Axis I disorders [32].

The present study is insufficient to indicate of causal interaction between CIU and Axis I and Axis II psychiatric disorders, because it has a cross-sectional design. Axis I psychiatric disturbances are either a potential cause or a consequence of CIU. However, when our results about factors related to Axis I diagnosis were considered, Axis I psychiatric disorders may be associated with onset of CIU rather than urticarial disease activity or the existence of a chronic skin disease. In addition, when we gathered all of our results, we think that obsessive–compulsive and avoidant personality disorders may constitute a predisposition for occurrence of both urticarial symptoms and Axis I psychiatric disorders, negatively impacting patients' coping mechanisms with stressful life events or leading to cognitive misinterpretations of various life events, which are actually not stressful.

In conclusion, results of the present study suggest that all of patients with CIU who were admitted to a dermatology outpatient clinic should be screened in terms of Axis I psychiatric disorders, particularly obsessive–compulsive disorder. Moreover, further studies should be examined influence of Axis I and Axis II psychiatric disorders and their psychopharmaceutical therapies on course of CIU.

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