

Original article

Quality of life and patients' satisfaction in chronic urticaria and respiratory allergy

Background: Few articles are available about chronic urticaria (CU) impact on patients' quality of life (QoL). The aim of our study was to evaluate QoL in CU patients both focusing on health status and subjective satisfaction. We adopted two generic tools: SF-36 (an health status questionnaire) and SAT-P (a satisfaction profile).

Methods: Twenty-one untreated patients (five males, 16 females; aged 46.3 ± 12.4) affected by CU, were enrolled. SF-36 and SAT-P scores of CU patients were compared with scores of a group of 27 patients with respiratory allergy. Published reference values of 608 and 241 Italian healthy subjects were used as controls, respectively, for SF-36 and SAT-P.

Results: Patients with CU compared with allergic patients referred significantly lower scores in physical functioning ($P = 0.046$), role physical ($P = 0.01$), bodily pain ($P = 0.0001$), general health ($P = 0.0043$) and role emotional ($P = 0.04$), and compared with reference sample reported lower scores in all SF-36 domains ($P < 0.0001$). SAT-P scores of CU patients compared with patients with respiratory allergy and with reference sample were significantly lower in many aspects of daily life.

Conclusions: These results show a significant impact on health status and on subjective satisfaction in patients with CU: the symptoms affect everyday life, limiting and impairing physical and emotional functioning, and acts as an indirect burden on life satisfaction.

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Chronic urticaria (CU) is a skin disorder characterized by the eruption of transitory, usually intensely itchy weals for more than 6 weeks (1), and remains a major problem in terms of aetiology, investigation and management.

Chronic urticaria affects predominantly adults, it is approximately twice as common in women as in men (2). Up to 40% of patients who have urticaria for more than 6 months still have urticarial weals 10 years later. Although accurate data on its prevalence are unavailable, 15 to 23% of U.S. population may have had this condition and a similar prevalence in Europe seems probable (3).

Whereas the aetiology of CU and its pharmacological treatment have been studied, surprisingly few articles are available about CU impact on patients' quality of life (QoL) (4, 5). This is in contrast with the huge number of articles on asthma and on rhinitis in which both disease and treatment impact on QoL have received great attention (6). The only two studies available show that the CU impact involves many aspects of patient's daily life and general well-being, with an intensity which equals the impact of more severe clinical conditions, such as cardiac diseases.

In spite of these impressive suggestions, which are confirmed by clinical experience, no attention is nowadays given to this issue.

The aim of the present study is to contribute to the knowledge of the CU impact on patients' QoL. As recent suggestions emphasise the importance of assessing both health status and subjective satisfaction about it as indicators of health related quality of life (HRQL) (7, 8), the present study has taken into account both these two components.

Methods

Subjects

Twenty-one consecutive untreated patients affected by CU, referring to our Allergy Unit for a first visit, were enrolled into the study. Patients had the following characteristics: five males, 16 females; aged 46.3 ± 12.4 years, seven single, 14 married.

Instruments

We adopted two generic instruments: the SF-36 and the Satisfaction Profile (SAT-P).

The SF-36 is a well-known health status measure which encompasses eight domains related to daily life activities: physical functioning, role limitations due to physical problems, role limitations due to emotional problems, vitality, bodily pain, social functioning,

mental health, and general health perception (9). Each domain scores from 0 (lowest level of functioning) to 100 (highest level of functioning). The instrument has been extensively validated within the Medical Outcome Study and in other settings.

The SAT-P provides a satisfaction profile of daily life and can be considered as an indicator of subjective QoL. Satisfaction can be defined as the cognitive product of the comparison between ideal life and reality, and can therefore be quantitatively measured. The patient is asked to evaluate, on 10 cm horizontal VAS, his/her satisfaction on 32 life aspects with reference to the last month, independently of his objective health status. It provides 32 individual scores and five factor scores ranging from 0 (lowest level of satisfaction) to 100 (highest level of satisfaction). Its psychometric properties and clinical utility have been confirmed (10) and it has been already used on allergic patients (11).

Procedures

The patients were asked to fill in the questionnaires while waiting for their first visit. Written informed consent was given by all the patients.

The SF-36 domain scores obtained from patients with CU to those obtained from 27 untreated patients with allergic respiratory diseases (perennial rhinitis and intermittent asthma) at their first visit were compared. Furthermore, published reference values of 608 healthy subjects were used as controls.

The SAT-P scores (for each item and for all factors) obtained from patients affected by CU and from patients with allergic respiratory diseases and 241 healthy subjects were compared.

A nonparametric test (Mann–Whitney) was used for the comparisons between CU and allergic patients' SF-36 and SAT-P scores.

An unpaired *t*-test was used for the comparison between CU patients and healthy subjects' SF-36 and SAT-P scores.

The statistically significant cut-off value was set at $P < 0.05$. The statistical analyses were implemented by using SPSS 10.0.

Results

The CU patients' SF-36 scores resulted to be significantly lower than scores of patients with respiratory allergy in the following domains: physical functioning (85.95 *vs.* 94.07; $P = 0.046$), role physical (58.33 *vs.* 81.48; $P = 0.010$) bodily pain (59.91 *vs.* 91.78; $P = 0.0001$), general health (59.14 *vs.* 72.19; $P = 0.0043$) and role emotional (60.32 *vs.* 79.01) (Table 1).

Compared with the reference sample, CU patients reported significantly lower scores ($P < 0.0001$) in all SF-36 domains.

Tables 2 and 3 show the SAT-P items and factors in which scores of patients with CU were significantly lower than scores of patients with respiratory allergy and of healthy subjects.

Discussion

The small number of patients included into the study may be considered its main limitation, whereas the most important strength could be found in the attempt of

Table 1. SF-36 scores of patients with chronic urticaria (CU) and patients with respiratory allergy

SF-36 Domains	Mean $\pm$ SD		P-value
	Patients with CU (n = 21)	Patients with respiratory allergy (n = 27)	
Physical functioning	85.95 $\pm$ 22.73	94.07 $\pm$ 8.55	0.046
Role physical	58.33 $\pm$ 38.99	81.48 $\pm$ 28.24	0.01
Bodily pain	59.14 $\pm$ 30.19	91.77 $\pm$ 13.44	0.0001
General health	59.14 $\pm$ 16.82	72.18 $\pm$ 15.96	0.0043
Vitality	53.33 $\pm$ 20.88	48.15 $\pm$ 16.53	0.82
Social functioning	64.28 $\pm$ 24.77	69.44 $\pm$ 20.89	0.21
Role emotional	60.32 $\pm$ 38.90	79.01 $\pm$ 33.52	0.04
Mental health	59.62 $\pm$ 19.79	65.33 $\pm$ 16.00	0.13

Table 2. SAT-P Items and factors with significantly different scores between CU patients and patients with respiratory allergy

SAT-P Items	Mean $\pm$ SD		P-value
	Patients with CU (n = 21)	Patients with respiratory allergy (n = 27)	
Amount of sleep	38.19 $\pm$ 26.12	54.55 $\pm$ 22.08	0.023
Quality of sleep	35.95 $\pm$ 23.85	63.85 $\pm$ 27.51	0.001
Eating behaviour	43.14 $\pm$ 29.17	62.22 $\pm$ 26.40	0.025
Resistance to stress	34.95 $\pm$ 23.28	54.00 $\pm$ 20.27	0.007
Mood	42.14 $\pm$ 28.97	61.04 $\pm$ 20.40	0.019
Self-confidence	54.05 $\pm$ 25.19	70.15 $\pm$ 22.45	0.019
Type of work	47.87 $\pm$ 25.97	65.41 $\pm$ 25.86	0.048
Professional role	42.36 $\pm$ 32.59	69.45 $\pm$ 29.41	0.016
SAT-P Factors			
Sleep/eating/leisure	45.28 $\pm$ 17.94	57.77 $\pm$ 18.57	0.009

Table 3. SAT-P Items and factors with significantly different scores between chronic urticaria patients and reference sample

SAT-P Items	Mean $\pm$ SD		P-value
	CU patients (n = 21)	Reference sample (n = 241)	
Amount of sleep	38.19 $\pm$ 26.12	57.97 $\pm$ 25.48	0.001
Quality of sleep	35.95 $\pm$ 23.85	60.48 $\pm$ 28.06	0.0001
Physical well-being	43.95 $\pm$ 29.21	61.21 $\pm$ 23.39	0.012
Resistance to stress	34.95 $\pm$ 23.28	60.05 $\pm$ 27.52	0.0001
Mood	42.14 $\pm$ 28.97	49.67 $\pm$ 22.69	0.011
SAT-P Factors			
Sleep/eating/leisure	45.28 $\pm$ 17.94	57.77 $\pm$ 18.57	0.009

describing, beside the very few other articles, CU patients' QoL. Therefore, these results may be considered as preliminary data that must be followed by further research with wider samples.

As regards SF-36 data, patients with CU compared with the reference sample reported lower scores in all domains, and compared with respiratory allergy patients

reported to be more affected in physical functioning, pain perception and perceived health.

Moreover, with the SAT-P, patients with CU reported lower satisfaction levels compared with the reference sample in sleep (quantity and quality), physical well-being, resistance to stress and mood. Compared with patients with respiratory allergy, patients with CU reported lower satisfaction levels in many aspects of daily life related to sleep, eating behaviour, psychological functioning, and work.

The resulting picture shows a significant impact on health status and on subjective satisfaction in patients with CU: the symptomatology seems to affect many daily life activities, limiting and impairing physical and emotional functioning, and acts as an indirect burden on life satisfaction.

The results suggest that the joint use of the two instruments allows to better focus on both the objective and subjective components of QoL, identifying difficulties and limitations that could have been otherwise undetected

(12, 13). Moreover, by means of SAT-P, also resources and abilities could be highlighted: compared with the reference sample many areas of daily life are not affected.

In future research, in clinical trials, the synergetic use of the two questionnaires could also provide important informations on changes in health status and in perceived satisfaction following pharmacological treatment, which have been till now highlighted simply in terms of symptomatology, and, consequently, may have been underestimated.

Moving from symptomatology towards QoL means shifting the attention from a disease-centred medicine towards a patient-centred approach (14).

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