

Original Research Article

Impact of chronic idiopathic urticaria on patients' quality of life in Jeddah, Saudi Arabia

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ABSTRACT

Background: Urticaria is a common chronic dermatological disease that has a negative impact on the psychological status and the social interaction of the patients' quality of life. The dermatology life quality index (DLQI) is one of the dermatology-specific instruments to evaluate the extent of the quality of life (QoL) impairment in the patients with skin diseases and provide an additional evaluation for the overall effectiveness of the treatment.

Methods: This study was designed as a descriptive cross-sectional which was conducted in Jeddah city. Questionnaires with verified Arabic version of the DLQI were distributed and collected to the patients by dermatologists.

Results: A total 79 patients were enrolled in the study. Male patients represented 48.1%, while female represented 51.9% and sex ratio was 1:1.1. The mean DLQI score in all patients was 10.67 ± 5.54 . 51.9% of the patients unfortunately with score of 11-20 had very large effect on their life.

Conclusions: Chronic idiopathic urticaria (CIU) has a significant negative impact on the quality of life. In Saudi Arabia, few studies only have been done to evaluate the impact of CIU on patients' life and more studies are needed to help the patient to improve the management's strategy and the patients' life.

Keywords: Chronic idiopathic urticaria, Saudi Arabia, Dermatology life quality, Impact

INTRODUCTION

CIU is the fourth allergic disorder after asthma, rhinitis and drug allergy which affects 0.5 to 1% of the population.¹ It appears as erythematous itchy wheals, at least twice a week, with or without angioedema, that recurrent for more than 6 consecutive weeks.²

CIU is a challenging disease, the etiology in the majority of patients is unknown, leading to difficulties in the disease management, so this may affect the QoL for these

patients.^{3,4} CIU can lead to sever sleep disruption to the patients secondary to its association with sever pruritis and also can cause generalized irritability and stress for the patient and their families.⁴

The DLQI is one of the dermatology-specific instruments to evaluate the extent of the QoL impairment in the patients with skin diseases and provide an additional evaluation for the overall effectiveness of the treatment.^{5,6} DLQI is self-administered 10 items questionnaire using the verified Arabic version include the symptoms and feelings, daily activities and personal relationships.

There are also two scores which are specific for assessment CIU, chronic urticaria and QoL questionnaire (CUQ2oL) and urticaria severity score (USS).^{7,8}

Severe QoL impairment caused by chronic urticaria is often underestimated. Few studies evaluating the CU burden on QoL, have been reported and the result is comparable to that of atopic dermatitis and psoriasis patients.⁹

In Saudi Arabia, only one study has been done to evaluate the impact of CIU on patients' life, thus more studies to improve their QoL are needed.¹⁰

METHODS

This study was designed as a descriptive cross-sectional, conducted in Jeddah city from December 2020 to February 2021 at King Abdulaziz hospital. The ethical approval was obtained from ethical committee. The subjects were consented to be enrolled into the study (N=79) after applying exclusion and inclusion criteria.

Raosoft sample size calculator was used to calculate the estimated sample size and the recommended sample size was 377. Using margin of error 5%, confidence level 95%, population size for unknown population number 20,000 and the response distribution 50%. All the patients with CIU were included in the study and all the patients with language barrier or can't provide consent were excluded. A self-administered 10 items questionnaire using the verified Arabic version of the DLQI was

distributed to the patients or their responses and has been collected.

The DLQI covers six sections included the symptoms and feelings, daily activities, leisure, work or school, personal relationships and treatment. The score ranged from 0-30, the higher the score, the more the QoL was impaired.

A DLQI score of 0-1 is interpreted as no effect on patient's life, 2-5 as a small effect, 6-10 as a moderate effect, 11-20 as a very large effect and 21-30 as an extremely large effect. Data was entered and analyzed using statistical package for the social sciences IBM SPSS-14.0. All quantitative variables were expressed as a mean ±standard deviation.

RESULTS

Total of 79 patients with CIU were enrolled in the study and all of them completed the questionnaire. Male patients represented 63% while female 37% and sex ratio is 1:1.1. More detailed DLQI scores are summarized in Table 1.

There were 6.3% of patients with DLQI score of 0-1 indicating that urticaria had no effect at all on their life, while 2.5% with score of 21-30, urticaria had extremely large effect on their life. Whereas 15.2% with DLQI score of 1-2 signifying that urticaria had small effect and 24.1% of the patients with score of 2-10 indicating moderate effect of urticaria. 51.9% of the patients unfortunately with score of 11-20 had very large effect on their life.

Table 1: DLQI scores of patients with CIU (n=79).

Questions	Mean (SD)
Symptoms and feelings	
Over last week, how itchy, sore, painful or stinging has your skin been?	1.75 (0.87)
Over last week how embarrassed or self-conscious have you been because of your skin?	1.46 (0.90)
Daily activities	
Over last week, how much has your skin interfered with you (shopping, looking after your home)?	0.86 (0.79)
Over last week, how much your skin influenced the clothes you wear?	1.28 (1.06)
Leisure	
Over last week, how much has your skin affected any social or leisure activities?	0.96 (0.88)
Over last week, how much has your skin made it difficult for you to do any sport?	0.61 (0.87)
Work and school	
Over last week, has your skin prevented you from working or studying?	0.75 (0.88)
Personal relationships	
Over last week, how much has your skin created problems with your partner or any of your close friends or relatives?	0.63 (0.75)
Over last week, how much has your skin caused any sexual difficulties?	0.49 (0.69)
Treatment	
Over last week how much of problem has the treatment for your skin been, for example by making your home messy or by taking up time?	1.75 (1.03)

Table 2: Gender of our CIU patients in relation to DLQI score.

CIU patients		DLQI severity score					Total
		No effect	Small effect	Moderate effect	Very large effect	Extremely effect	
Gender	Male	3	5	11	17	2	38
	Female	2	7	8	24	0	41
Total		5	12	19	41	2	79

Table 3: Percentage of our CIU patients in relation to interpretations of DLQI score.

Scores	Percentage of patients	Interpretation of the score
0-1	6	No effect on patient's life
2-5	15	Small effect on patient's life
6-10	24	Moderate effect on patient's life
11-20	51	Very large effect on patient's life
21-30	2	Extremely large effect on patient's life

According to gender, the scores were 0-1, 2-5, 6-10, 11-20 and 21-30, in 7%, 28%, 44% and 5% of the male, respectively. While females had 4%, 17%, 19%, 0% and 58% scoring 0-1, 2-5, 6-10, 11-20 and 21-30, respectively indicating no effect at all on their life, small effect on their life, moderate effect on their life, very large effect on their life or extremely large effect on their life respectively. The lowest score was for the part of the personal relationships and the highest score was for the part related to the symptoms.

DISCUSSION

Urticaria is a distressing disease that significantly has negative impact on patients' quality of life. It represents a lifelong burden for affected patients.^{3,4}

The aim of this study was to assess the QoL of patients with CIU in Jeddah using DLQI.

Only 6% of our patient their disease had no effect on their life. While 78.5% of the participant had moderate to extremely large effect on their life with DLQI >6, which showed statistically significant $p=0.005$. More than half of them had very large effect on their life.

In the DLQI questionnaire, the lowest score was for the part of the personal relationships and the highest score was for the part related to the symptoms. Men and women have different perceptions of how the disease could affect their social relationships and, their QoL.

Study in UK found the prevalence of CIU was higher in women 85.72%.¹¹ In contrast to our study, we had non equal number of male and female participants, so comparison between them couldn't be established.

Similar studies in comparison showed that CIU is impairing the patients' QoL.^{12,13} A Germany study showed that QoL was reduced with CIU in comparison to

other types of urticaria and allergic diseases, and found no relation between the economic status and the disease prevalence.¹⁴ In France also a comparative study between CIU, psoriasis and atopic dermatitis and their effect on QoL and the result showed severe impairment caused by CIU as well as the other diseases which is usually underestimated.¹⁵

There are different scores used to assess CIU either specific to CIU or even general dermatological score. urticaria severity couldn't be assessed using the urticaria activity score (UAS) since it is a 7 day self-assessment questionnaire of wheals and pruritus while questionnaire was distributed and collected at the same day.

Limitation of the study were the small sample size and the limited time for the study due to COVID-19 pandemic and difficult access to the clinics

CONCLUSION

CIU has sever negative impact on the patient's quality of life. In Saudi Arabia, few studies only have been done to evaluate the impact of CIU on patients' life, therefore, more studies are needed to help the patient to improve the management's strategy and the patients' life.

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