

QUALITY OF LIFE AMONG PATIENTS WITH CHRONIC URTICARIA DISEASE AT E HOSPITAL IN 2022

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ABSTRACT

Objective: To describe of quality of life among patients with chronic urticaria at the Department of Allergy, Immunology and Dermatology at E Hospital in 2022. **Participants and methods:** A cross-sectional descriptive study was conducted on 95 patients with chronic urticaria at the Department of Allergy, Immunology and Dermatology, Hospital E. The questionnaire to assess the quality of life of patients with chronic urticaria was developed by the researcher based on the CU - Q2oL questionnaire. **Results:** The overall mean score on quality of life of the patients was calculated as 64.36 ± 12.44 (37-102) points. The average score of problems affecting the quality of life of patients with chronic urticaria were itching 1.95/4 points; swelling 1.97/4 points; daily activities 1.9/4 points; sleep 2.01/4 points; limitation 1.85/4 points and appearance 2.0/4 points. **Conclusion:** The quality of life of patients with chronic urticaria is significantly low. Nurses need to provide health education about nutrition, exercise, and choose appropriate cosmetics and clothing.

Keywords: Quality of life, chronic urticaria, hospital.

1. INTRODUCTION

Chronic urticaria is a skin disease characterized by a red maculopapular rash accompanied by pruritus that persists for more than 6 weeks. The prevalence of chronic urticaria in the general population is about 0.5 - 1%. About 20% of the world's population has some manifestations of urticaria at least once in their life [1]. In Vietnam, according to Nguyen Nang An et al., the rate of urticaria in the community is 11.68%, of which about 80-90% of patients have no identifiable cause [2].

A study in the world in 2013 showed that urticaria belongs to the group of 10 most common skin diseases. Skin diseases account for 1.79% of the global burden of disease as measured by DALYs from 306

diseases and injuries, of which urticaria ranks fourth, accounting for 0.19% [3]. In Vietnam, the study on the situation of allergic diseases in the population in Hanoi, the rate of urticaria accounted for 6.42% [4].

Quality of life has become an important topic for society and especially for medical professionals. It can be defined as the individual's satisfaction or happiness with life in areas that the patients deems important. Several factors can affect an object's happiness, such as work, home, and financial concerns. Health is one of these factors. Thus, the phrase "health-related quality of life" was developed to refer to the impact of disease and therapy on the lives of patients, which, in their perception, is

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the patient's subjective judgment about the effect of their health status on their ability to live fully [5].

Chronic urticaria affects subjective and daily life; Some patients have similar health conditions with coronary artery disease and patients with severe asthma. It also causes inconvenience in home life, affects performance at work and school, and negatively impacts leisure activities [6]. Itchy skin causes various discomforts, as well as lesions that, depending on their number and location, can be detrimental to an individual's appearance and social life [7]. Sleep disturbances such as insomnia, fatigue and somnolence - due to itching or side effects of antihistamines - are commonly observed [8]. The degree of impact on quality of life varies according to the etiology and severity of chronic urticaria. When chronic urticaria is associated with late stress urticaria, it affects quality of life more significantly than urticaria alone [9].

Department of Allergy, Immunology and Dermatology at E hospital with the function of examining, treating and taking care of allergic, immunological and dermatological diseases. Annually, the department receives more than 500 patients for treatment at the department, in which the number of patients treated for chronic urticaria at the department is estimated at 100 patients per year. However, there are currently lack of studies evaluating the quality of life of these patients. Therefore, the study was conducted with the objective to describe the quality of life of patients with chronic urticaria at the Department of Allergy, Immunology and Dermatology, Hospital E.

2. PARTICIPANTS AND METHODS

2.1. Research participants

Patients with chronic urticaria received

services at the Department of Allergy, Immunology and Dermatology, E . Hospital

- **Selection Criteria:** Patients diagnosed with chronic urticaria aged 18 years or older are being treated at the Department of Allergy, Immunology and Dermatology.

- **Exclusion criteria:** Patients with other chronic diseases such as cancer, diabetes, high blood pressure.

2.2. Time and setting: The study was conducted at the Department of Allergy, Immunology and Dermatology of Hospital E from January to May 2022.

2.3. Research design: Cross-sectional descriptive study was conducted using convenience sampling. All patients diagnosed with chronic urticaria treated at the Department of Allergy, Immunology and Dermatology of Hospital E during the period of January to May, 2022 were eligible for the study. A total of 95 patients who met the inclusion criteria completed the survey.

2.4. Data collection

Research measurement

The questionnaire to assess the quality of life among patients with chronic urticaria was translated from the questionnaire to assess the quality of life of patients with chronic urticaria (CU-Q2oL) by Baiardini et al. 2005 [10]. The questionnaire assessed of the physical, psychosocial and practical aspects of chronic urticaria with a total of 23 questions covering six key CU-specific domains: itching, swelling, affect to life activities, problems with sleep, limitations, and appearance. By scoring each item on a 5-point Likert scale from 0 (not at all) to 4 (very influenced). The higher the score, the worse the quality of life.

The questionnaire, after being translated

into Vietnamese, was sent to 02 heads of departments, 01 hospital chief nurse and 02 head nurses to check the validity. The validation test results showed that the CVI index was 0.82. The reliability test was conducted on 30 patients for Cronbach Alpha coefficient was 0.845

Table 1. Questionnaire used in the study

Area	Items	Range
Influenced by itch symptoms	02 items	2 - 10
Influenced by swelling symptoms	02 items	2 - 10
Influenced on life activities	06 items	5 - 30
Sleep problems	05 items	5 - 25
Limitation	03 items	3 -15
Appearance	05 items	5 - 25
Total score	23 items	23 - 115

3. RESEARCH RESULTS

Table 2. Symptoms of itching - swelling

Content	Level of influence					Medium score
	No at all n (%)	A little influence n (%)	Medium influence n (%)	Influence n (%)	Very Influence n (%)	
Swelling	10 (10.53)	24 (24.21)	28 (29.47)	26 (27,37)	8 (8.42)	1.98
Itchy	21 (21.11)	13 (13.68)	23 (24.21)	27 (28.42)	11 (11.58)	1.93
Swollen eyes	12 (12.63)	20(21.05)	32 (33.68)	19 (20.0)	12 (12.63)	1.98
Swollen lips	13 (13.68)	20 (21.05)	28 (29.47)	24 (25.26)	10 (10.53)	1.97

89.47% of patients were influenced by swelling from a little to very influenced with an average score of 1.98. There were 74 per 95 patients influenced by itching, accounting for 78.07 %, with from a little to very influenced with an average score of 1.93. The majority of patients were influenced by symptoms, eye swelling was 87.37% and influenced by lip swelling was 86.32%.

Data collection

Patients who met the inclusion criteria were explained about the purpose of the study and invited to participate in the study. Patients who agree to participate in the study were asked to rate the questionnaire.

Data analysis

Data analysis were performed using IBM-SPSS version 22.0. The frequencies and percentages were used to describe the general characteristics of the patients. The quality of life-affecting aspects were presented as mean scores and standard deviations to describe patients' quality of life.

2.5. Research ethics

The study has been approved by the Ethics Committee at Nam Dinh University of Nursing under Certificate No. 472/GCN-HDDD, dated March 3, 2022.

Table 3. Influenced on living activities (n = 95)

Content	Level of influence					Medium score
	No at all n (%)	A little influence n (%)	Medium influence n (%)	Influence n (%)	Very Influence n (%)	
Urticaria affects my sleep	6 (6.32)	11 (11.58)	31 (23.63)	37 (38.95)	10 (10.03)	2.35
Urticaria interferes with my work	19 (20.0)	12 (12.63)	23 (24.21)	29 (30.53)	12 (12.63)	2.03
Urticaria interferes with my social relationships	7 (7.32)	31 (32.63)	23 (24.21)	26 (27.37)	8 (8.42)	1.96
Urticaria interferes with my eating behavior	10 (10.53)	30 (31.58)	25 (27.37)	26 (26.32)	4 (4.21)	1.82
Urticaria interferes with my free time	12 (12.63)	21 (21.31)	39 (41.05)	19 (20.0)	4 (4.21)	1.81
Urticaria interferes with my physical activities	14 (14.47)	25 (27.37)	30 (31.58)	21 (22.11)	5 (5.26)	1.76

Patients had the most influence on sleep with an average score of 2.35 and the lowest influence on physical activities with an average score of 1.76.

Table 4. Influenced on sleep (n = 95)

Content	Level of influence					Medium score
	No at all n (%)	A little influence n (%)	Medium influence n (%)	Influence n (%)	Very Influence n (%)	
Difficulty falling asleep	10 (10.53)	28 (29.47)	17 (17.89)	24 (25.26)	16 (16.84)	2.08
Tired during the day because of poor sleep at night	7 (7.32)	30 (31.58)	22 (23.16)	24 (25.26)	12 (12.63)	2.04
Difficulty concentrating	5 (5.26)	33 (31.58)	22 (27.37)	23 (24.21)	12 (12.63)	2.04
Stress	9 (9.47)	27 (28.42)	27 (28.42)	20 (21.05)	12 (12.63)	1.98

Content	Level of influence					Medium score
	No at all n (%)	A little influence n (%)	Medium influence n (%)	Influence n (%)	Very Influence n (%)	
Anxiety	11 (11.58)	23 (24.21)	27 (28.42)	24 (25.26)	10 (10.53)	1.98
Awakened at night	14 (14.74)	24 (25.26)	23 (24.21)	21 (22.11)	13 (13.68)	1.94

Patients with difficulty falling asleep had the highest average score of 208 and waking up at night had the lowest mean score influencing on quality of life with an average score of 1.94.

Table 5. Limits of choice due to chronic urticaria (n = 95)

Content	Level of influence					Medium score
	No at all n (%)	A little influence n (%)	Medium influence n (%)	Influence n (%)	Very Influence n (%)	
Limited food choices	12 (12,63)	30 (31.58)	24 (25.26)	16 (16.84)	13 (13,68)	1.87
Limited sports activities	18 (18.95)	20 (21.05)	21 (22,11)	27 (28,42)	9 (9,47)	1.85
Limited clothing choices	10 (10,53)	31 (32.63)	25 (26.32)	21 (22,11)	8 (8,42)	1.82

Patients with limited clothing choices accounted for the highest rate of 89.47%. The percentage of patients limited to sports activities accounted for the lowest rate of 80.05%. Patients with limited to food choices had the highest mean score of 1.87. The patients with limited clothing choices had the lowest mean score of 1.82.

Table 6. Influence on appearance due to chronic urticaria (n = 95)

Content	Level of influence					Medium score
	No at all n (%)	A little influence n (%)	Medium influence n (%)	Influence n (%)	Very Influence n (%)	
There is a problem when using cosmetics	3 (3.16)	32 (33.68)	23 (24.21)	21 (22.11)	16 (16.84)	2.15
Embarrassed by the symptom of urticaria	5 (5.26)	21 (22.11)	23 (24.21)	23 (24.21)	13 (13.68)	2.08

Content	Level of influence					Medium score
	No at all n (%)	A little influence n (%)	Medium influence n (%)	Influence n (%)	Very Influence n (%)	
Embarrassed in public	13 (13.68)	26 (27.36)	24 (25.26)	19 20.0	13 (13.68)	1.92
Trouble due to drug side effects	10 (10.53)	31 (32.63)	25 (26.32)	21 (22.11)	8 (8.42)	1.85

Patients with problems using cosmetics accounted for the highest rate of 96.84%. The proportion of patients embarrassed to go to public places accounted for the lowest rate of 86.32%. Patients with cosmetic problems had the highest average score of 2.15. Those who had problems with side effects had the lowest mean score of 1.85.

Table 7. The quality scores of the influencing aspects according to the CU-Q2oL scale

Content	Min	Max	Total Average Score (SD)	Median	Variance
Influenced by itch symptoms	2	10	5.91 ± 1.81	6.0	0.161
Influenced by swelling symptoms	2	10	5.96 ± 2.01	6.0	0.308
Influenced on life activities	9	30	17.89 ± 4.06	18.0	0.736
Sleep problems	7	25	14.96 ± 4.86	15.0	0.287
Limitation	3	15	7.9 ± 0.269	8.0	0.363
Appearance	6	25	12.6 ± 0.339	13.0	0.841
CU – Q2oL	37	102	64.36 ± 12.44		

Chronic urticaria influenced the quality of life of patients with a total mean score of 64.36 ± 12.44

4. DISCUSSION

The study results showed that patients with chronic urticarial had the mean score of itching influenced quality of life was 3.92, of which the mean score influenced by swelling was 1.98 with the rate of 89.47%. The patient feels a little to very discomfort. There were 8.07% of patients influenced by swelling from a little to very discomfort. Skin swelling and itching caused various discomforts, as well as lesions that, depending on their number and location, can be detrimental to the patient's appearance

and social life.[8]. The study results by Ana Rita Almeida et al showed that a major impact on quality of life was the patient's skin condition (itching and swelling) [11]. Similar to Jun Khee Heng's research, it also showed that itching affects the quality of life of patients [12]. Similar to itching, swelling in chronic urticaria also greatly affected the quality of life of patients with the mean score of 3.96 ± 2.07. Symptoms of swelling often appeared in the eyes and lips, making the patient feel embarrassed when appearing in crowded places. 87.37% of patients affected by symptoms of eye swelling from a little

to very influenced with an average score of 1.98. 86.32% of patients influenced a little to a lot due to lip swelling symptoms with an average score of 1.97. The symptoms of itching and swelling are the first and second questions that assessed the emotional state of the patient, and this is also the main and most troublesome problem of chronic urticaria symptoms that influenced with daily activities and mental health.

Chronic urticaria is a disease that easily recurs, the disease significantly influence the daily activities of the patient. Research on quality of life of patients with chronic urticaria showed that influenced in personal life, affecting social activities are comparable to a decrease in quality of life [6]. In our study, urticaria also significantly affected the daily activities of patients with the mean score of 9.87 ± 3.65 . In which, patients had the most sleep problems with an average score of 2.35 and accounted for 93.68% of patients, influenced from a little to a lot, this is also a common factor due to itching symptoms usually occurs at night. Then there are the barriers to work, social activities and the lowest is the barriers to physical activities with an average score of 1.76. Similar to the study by Gabriela and O'Donnel, it also showed that physical activities are less influenced [9, 13]. This result may be because the participants in our study did little or no exercise.

Patients with chronic urticaria also influenced on sleep problems because the symptoms of itching often appear gradually at night. The research by Bowli indicated that patients were influenced the most in terms of difficulty falling asleep with a mean score of 2.08. It is lower than the results of the study Heng JK et al in Singapore. The results showed that feeling tired during the day because of a bad night's sleep [12].

Research by Gabriela et showed that stress with the highest score [13].

When evaluating the limitation in patients with chronic urticaria, the mean score was 10.11 ± 4.79 . Patients were most influenced in terms of food choices with an average score of 1.78. 87.37% of patients influenced from a little to a lot. The next influence was on sports activities with an average score of 1.85. The patient was least influenced with clothing choices with an average score of 1.82. The limitation on food choices in patients with chronic urticaria may be due to the patient's concern that foods may aggravate symptoms. Limited clothing choices were the least influenced by patients with a mean score of 1.82.

In general, patients with chronic urticaria influenced the patient's appearance with an average score of 5.78 ± 2.63 . Patients were least affected by side effects of the drug with a mean score of 1.85. Issues affecting the choice of cosmetics had the most influence with an average score of 2.15. Similar to the study that showed patients were least influenced by side effects from their medication and cosmetic use problems [12]. Patients with long-term illness complained less about the influence related to symptoms and clothing, however, they reported greater embarrassment and social impact at work [14]. In addition, the patient had severe limitations related to various daily activities, especially because of symptoms that cause embarrassment in public places, sports, work/study and leisure [15].

When assessing the factors affecting the quality of life of patients, it was found that chronic urticaria had a great impact on the quality of life of patients with the mean score of quality of life 39.27 ± 12.99 . It's lower than research by Heng showed the patient's total quality of life score according

to the CU - Q2oL scale with an average score of 45.0 [12]. Research by S. Altrichter showed that the quality of life of patients with cholinergic urticaria according to the CLCS CU - Q2oL scale was 52 ± 3 [16]. According to research by Nguyen Thi Lien, chronic urticaria had a score of influenced on life activities of 19.4 ± 3.1 , a score of influenced on sleep was 14.1 ± 2 . The level of influence on the overall quality of life was 67.8 ± 9.5 [17].

The results of the study showed that the quality of life of patients with chronic urticaria at the Department of Allergy, Immunology and Dermatology, E Hospital was significantly reduced with the mean score of quality of life 64.36 ± 12.44 (37–102). Chronic urticaria influenced on the well-being of daily life and can cause inconvenience that affects on work, school, and leisure activities. This study has higher results of quality of life than the study of Heng JK and S. Altrichter with mean quality of life scores of 45.0 and 52 ± 3 [12] [16], respectively. According to research by Nguyen Thi Lien, chronic urticaria had a score of 67.8 ± 9.5 , affecting overall aspects of quality of life. Similar to a study in patients in Brazil, chronic urticaria caused severe impairment in quality of life, especially in patients with urticaria and angioedema (DLQI 14.3 score) [19]. This difference is due to the heterogeneity of the study population, including patients with different types of urticaria at different stages of disease progression, differences in the use of different instruments between studies.

5. CONCLUSION

The study showed that the quality of life of patients with chronic urticaria at the Department of Allergy, Immunology

and Dermatology, E Hospital significantly decreased with an average score of 64.36 ± 12.44 . In which patients were influenced on the most with the limitations of choice (mean score of 10.11 ± 4.79) and influenced on daily activities with mean score of 9.87 ± 3.65 . Therefore, nurses who need to provide health education to the patients on foods rich in vitamins such as A, B, C, green vegetables, fruits and add plenty of water during the day. They should have a physical exercise regimen. Appropriate exercise should be educated to improve the patient's resistance, counseling. The selection of appropriate cosmetics and clothing should be reminded to avoid the recurrence of urticaria.

REFERENCES

1. Zuberbier T1, Asero R, Bindslev-Jensen C et al. EAACI/GA(2)LEN/EDF/WAO guideline management of urticaria. *Allergy*. 2009;64:1427 -1443. doi: 10.1111/j.1398-9995.2009.02178.x.
2. Nguyen Nang An. Drug allergy situation in our country, proposed interventions. *State-level independent project*. 2003:50 -52.
3. Karimkhani C, Dellavalle RP, CLEe. Global Skin Disease Morbidity and Mortality: An Update From the Global Burden of Disease Study 2013. *AMA Dermatol*. 2017;153(5):406 -412. doi:10.1001/jamadermatol.2016.5538
4. Tran Lan Anh, Diep Xuan Thanh. Investigate the causes and evaluate the effectiveness of supporting chronic urticaria by adjuvant treatment. *Clinical*. 2011;7(773):89 - 92.
5. Gerin P, Dazord A, Boissel J, R C. Quality of life assessment in therapeutic trials rationale for and presentation of a

- more appropriate instrument. *Fundam Clin Pharmacol*, 1992;6:263 -276. doi: 10.1111/j.1472-8206.1992.tb00120.x.
6. Baiardini I, Giardini A, Pasquali M et al. Quality of life and patients' satisfaction in chronic urticaria and respiratory allergy. *Allergy*. 2003;58:621 -623. doi: 10.1034/j.1398-9995.2003.00091.x.
7. Yosipovitch G, Ansari N, Goon Aat al. Clinical characteristics of pruritus in chronic idiopathic urticaria. *Br J Dermatol*. 2002;147:32 - 36. doi: 10.1046/j.1365-2133.2002.04758.x.
8. Chung MC, Symons C, Gilliam Jat al. The relationship between posttraumatic stress disorder, psychiatric comorbidity, and personality traits among patients with chronic idiopathic urticaria. *Compr Psychiatry*. 2010;51(55 - 63). doi: 10.1016/j.comppsy.2009.02.005.
9. O'Donnell BF, Lawlor F, Simpson Jat al. The impact of chronic urticaria on the quality of life. *Br J Dermatol*. 1997;163:197 - 201.
10. Baiardini I1, Pasquali M, Braido Fet al. A new tool to evaluate the impact of chronic urticaria on quality chronic urticaria quality of life questionnaire (CU-Q2oL). *Allergy*. 2005;60:1073 - 1078. doi: 10.1111/j.1398-9995.2005.00833.x.
11. Ana Rita Almeida, Bárbara Oliveiros, Gonçalo M. Relation between Chronic Urticaria and Quality of Life: An Observational Study of 112 Portuguese Patients. *J Port Soc Dermatol Venereol*. 2021;79(3):233 -240. <https://doi.org/10.29021/spdv.79.3.1402>
12. Heng JK. A study of adherence and quality of life among adults with chronic urticaria in Singapore. *Asia Pac Allergy*. 2015;5:197 - 202. doi: 10.5415/apallergy.2015.5.4.197
13. Dias GAC. Impact of chronic urticaria on the quality of life of patients followed up at a university hospital. *An Bras Dermatol*. 2016;91(6):754 -759. doi: 10.1590/abd1806-4841.20165071
14. Balp MM. The Burden of Chronic Urticaria from Brazilian Patients' Perspective. *Dermatol Ther*. 2017;7:535 - 45. doi: 10.1007/s13555-017-0191-4.
15. Silvare MRC, Fortes MRP, Miot HA. Quality of life in chronic urticaria: a survey at a public university outpatient clinic, Botucatu (Brazil). *Elsevier*. 2011;57(5):565-569. doi: 10.1590/s0104-42302011000500018
16. S. Altrichter. Atopic predisposition in cholinergic urticaria patients and its implications. *J Eur Acad Dermatol Venereol*. 2016;30(12):2060-2065. doi: 10.1111/jdv.13765.
17. Nguyen Thi Lien. Study on the prevalence of Helicobacter pylori infection in patients with chronic urticaria and the effectiveness of treatment with a 3-drug regimen. *Doctor of Medicine Thesis*. Clinical Medical Research Institute 108. 2019.
18. Thomsen S, et al. Chronic urticaria in the real-life clinical practice setting in Sweden, Norway and Denmark: baseline results from the non-interventional multicentre AWARE study. *J Eur Acad Dermatol Venereol*. 2017;31(6):1048-1055. doi: 10.1111/jdv.14210.
19. Won-Sun Choi et al (2018), Disease-specific impairment of the quality of life in adult patients with chronic spontaneous urticaria, *Korean J inter Med*. 33: page. 185 -192. doi: 10.3904/kjim.2015.195.