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## Original Research

# Clinico-Epidemiological Profile and Quality of Life Assessment in Patients with Chronic Urticaria: A Hospital-Based Cross-Sectional Study.

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## Abstract

**Background:** Chronic urticaria (CU) is a common dermatological disorder characterized by recurrent wheals, angioedema, or both lasting for more than six weeks. The disease significantly affects physical, psychological, and social well-being, thereby impairing quality of life (QoL). **Aim:** To evaluate the clinico-epidemiological profile and assess the quality of life among patients with chronic urticaria attending a tertiary care hospital. **Materials and Methods:** A hospital-based cross-sectional study was conducted among 120 diagnosed chronic urticaria patients attending the Dermatology outpatient department over a period of one year. Demographic details, clinical characteristics, triggering factors, associated comorbidities, and laboratory findings were recorded. Disease severity was assessed using Urticaria Activity Score over 7 days (UAS7), and quality of life was evaluated using the Dermatology Life Quality Index (DLQI). **Results:** Among 120 patients, females constituted 63.3% and males 36.7%. The majority of patients belonged to the 21-40 years age group (52.5%). Pruritus and wheals were present in all patients, while angioedema was observed in 28.3% cases. Food allergy (25%), stress (22.5%), and drug intake (15%) were common triggering factors. Moderate-to-severe disease activity was noted in 61.7% patients. DLQI scores revealed moderate to very severe impairment in quality of life in 70% patients. Higher UAS7 scores were significantly associated with poorer QoL scores. **Conclusion:** Chronic urticaria predominantly affects young adults and females and significantly impairs quality of life. Early recognition, identification of triggering factors, and comprehensive management are essential for improving patient outcomes.

**Keywords:** Chronic urticaria, Dermatology Life Quality Index, UAS7, Quality of life, Wheals, Angioedema.

## Introduction

Chronic urticaria (CU) is a mast cell-mediated inflammatory skin disorder characterized by recurrent wheals, angioedema, or both occurring for more than six weeks.[1] It is one of the most common dermatological conditions encountered in clinical practice and significantly affects patient quality of life due to persistent itching, sleep disturbance, emotional stress, and social embarrassment.[2]

The prevalence of chronic urticaria in the general population ranges from 0.5% to 1%, with a female predominance.[3] The disease commonly affects adults between 20 and 40 years of age and may persist for months or years.[4] Chronic urticaria is broadly classified into chronic spontaneous urticaria and inducible urticaria based on etiology and triggering factors.[5]

Several precipitating factors have been implicated, including food allergens, medications, infections, stress, autoimmune disorders, and environmental triggers.[6] However, in many cases the exact etiology remains unidentified. Chronic urticaria is increasingly recognized as a disorder with significant psychosocial impact.[7]

Assessment of quality of life is an important component in management because the disease adversely affects daily activities, work productivity, sleep, and interpersonal relationships.[8] The Dermatology Life Quality Index (DLQI) and Urticaria Activity Score over 7 days (UAS7) are validated tools widely used to assess disease burden and severity.[9]

Limited Indian studies are available regarding the clinico-epidemiological profile and quality of life among chronic urticaria patients. Therefore, the present study was conducted to evaluate the demographic profile, clinical characteristics, triggering factors, disease severity, and quality of life impairment among patients attending a tertiary care hospital.

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## Materials and Methods

### Study Design and Setting

This hospital-based cross-sectional observational study was conducted in the Department of Dermatology at a tertiary care teaching hospital over a period of one year.

### Study Population

A total of 120 clinically diagnosed chronic urticaria patients aged above 18 years attending the Dermatology outpatient department were included in the study.

### Inclusion Criteria

- Patients diagnosed with chronic urticaria lasting more than six weeks
- Age  $\geq 18$  years
- Patients willing to participate

### Exclusion Criteria

- Acute urticaria ( $<6$  weeks duration)
- Pregnant women
- Patients with severe systemic illness
- Patients unwilling to participate

### Data Collection

Detailed history regarding age, gender, duration of disease, triggering factors, associated comorbidities, family history, and treatment history was recorded. Clinical examination findings including wheals, pruritus, angioedema, and dermatographism were documented.

### Assessment Tools

- Disease severity was assessed using UAS7 scoring system.
- Quality of life was assessed using Dermatology Life Quality Index (DLQI).

### Statistical Analysis

Data were entered into Microsoft Excel and analyzed using SPSS software version 25. Descriptive statistics were expressed as percentages, mean, and standard deviation. Chi-square test was used for categorical variables, and p-value  $<0.05$  was considered statistically significant.

## Results

### Demographic Characteristics

Out of 120 patients, 76 (63.3%) were females and 44 (36.7%) were males. The mean age of participants was  $34.6 \pm 11.2$  years. Most patients belonged to the 21-40 years age group.

| Age Group (Years) | Number (%) |
|-------------------|------------|
| 18-20             | 12 (10%)   |
| 21-40             | 63 (52.5%) |
| 41-60             | 34 (28.3%) |
| $>60$             | 11 (9.2%)  |

### Clinical Profile

Pruritus and wheals were present in all patients. Angioedema was observed in 34 (28.3%) patients, while dermatographism was present in 26 (21.7%) cases.

| Clinical Feature | Frequency (%) |
|------------------|---------------|
| Wheals           | 120 (100%)    |
| Pruritus         | 120 (100%)    |
| Angioedema       | 34 (28.3%)    |
| Dermatographism  | 26 (21.7%)    |

### Triggering Factors

The most common triggering factors identified were food allergy (25%), stress (22.5%), drug intake (15%), and infections (10%).

### Disease Severity

Based on UAS7 scores:

- Mild disease: 24 (20%)
- Moderate disease: 50 (41.7%)
- Severe disease: 24 (20%)
- Very severe disease: 22 (18.3%)

### Quality of Life Assessment

DLQI scoring revealed:

- Mild effect: 18 (15%)
- Moderate effect: 36 (30%)
- Very large effect: 48 (40%)
- Extremely large effect: 24 (20%)

Higher UAS7 scores showed significant association with poorer DLQI scores ( $p < 0.05$ ).

## Discussion

The present study demonstrated female predominance in chronic urticaria patients, which is consistent with previous studies conducted by Baip et al. and Maurer et al.[10,11] The majority of patients were young adults in the productive age group, indicating significant socioeconomic burden.

Pruritus and wheals were universally present, while angioedema was observed in approximately one-third of patients, similar to findings reported by Zuberbier et al.[12] Stress and food allergy emerged as important triggering factors, supporting the role of psychological and environmental contributors in disease exacerbation.[13]

Quality of life impairment was considerable in the present study, with the majority experiencing moderate-to-severe DLQI scores. Chronic urticaria can affect sleep, work performance, social interaction, and mental health.[14] Similar observations have been reported in several international and Indian studies.[15,16]

The positive association between disease severity and poor quality of life emphasizes the need for early disease control and psychological support.[17] Comprehensive management including patient education, trigger avoidance, antihistamines, and advanced biologic therapy may improve long-term outcomes.[18].

### Conclusion

Chronic urticaria predominantly affects young adults and females and has a substantial impact on quality of life. Pruritus, wheals, and angioedema are common clinical manifestations, while stress and food allergy are important triggering factors. Disease severity is strongly associated with quality of life impairment. Early diagnosis, proper counseling, and holistic management are necessary to improve patient well-being.

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