

## STUDY OF THE CLINICAL CHARACTERISTICS OF INDIVIDUALS WITH CHRONIC URTICARIA: A CROSS SECTIONAL STUDY

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### Abstract

**Introduction:** Because of its continuous relapsing pattern and poor response to medication, chronic urticaria has a detrimental impact on sufferers' professional and social lives. Despite research improvements, the origin and cause of the varied intensity and frequency of clinical manifestation remains a mystery.

**Aim:** The goal of this study was to look at the clinical profile of chronic urticaria in a tertiary care setting.

**Methods:** The study comprised patients of both sexes aged 12 to 60 years old with a clinical diagnosis of chronic urticaria for which no cause could be identified using a standard technique.

**Results:** The average age of the patients with chronic urticaria was 30.44 years, and females predominated, with a male to female ratio of 1:3. The average duration of urticaria was 27.84 months, and urticaria lesions disappeared in less than 30 minutes in 48% of patients. In 38 percent of cases, there was accompanied angioedema, and in 46 percent, there was delayed pressure urticaria.

**Limitations:** The study's sample size was tiny, which constituted a constraint.

**Conclusions:** Our study's clinical profile of chronic idiopathic urticaria is comparable to that of prior research.

**Keywords:** Chronic urticaria, chronic idiopathic urticaria, chronic spontaneous urticaria

## I. INTRODUCTION:

Urticaria is a prevalent ailment that affects 15 to 25% of people at some point in their lives. Chronic urticaria is defined as urticaria that occurs on a daily or almost daily basis for more than six weeks<sup>1</sup>. This is true for all types of urticaria, but it is especially true for the common presentation of urticaria, which is employed after physical, vasculitic, and contact urticarias have been ruled out. Several drugs and variables have been linked to the onset and aggravation of chronic urticaria to date<sup>2</sup>. Medication, foods and food additives, infections, contactants, inhalants, physical factors, and autoimmunity are only a few examples. When no external trigger or underlying disease process can be found, the condition is referred to as chronic idiopathic urticaria, which is also known as chronic spontaneous urticaria<sup>3</sup>. Some recommendations and experts further categorise chronic idiopathic urticaria patients into chronic autoimmune urticaria patients based on serologic evidence of a putative autoimmune origin<sup>4</sup>. Chronic urticaria is more common in women in their forties and fifties. Wheals can range in size from a pinprick to a palm-sized or larger lesion<sup>5</sup>. They may become confluent as a result of peripheral extension, resulting in strange, geographic, annular, or serpiginous shapes<sup>6</sup>. Individual lesions usually persist a few hours and disappear within a day. Excoriation markings are uncommon

since wounds are often itchy and patients tend to rub rather than scratch<sup>7</sup>. Wheals may be more noticeable in the evenings or before a period. Wheals may be accompanied by angioedema of the eyelids or lips, or it may develop on its own. Urticaria and angioedema occur jointly in 49% of patients, while angioedema occurs alone in 11%. Up to 37% of chronic urticaria patients also have delayed pressure urticaria and, on rare occasions, additional physical urticaria<sup>8</sup>.

**Aims & objectives:** This research aims to provide light on the clinical picture of chronic urticaria patients

### Materials And Methods

The research was carried out on patients who visited the Department of Dermatology, Venereology, and Leprology's outpatient department. Patients with a clinical diagnosis of chronic urticaria, aged 12 to 60 years, were given a thorough history and examination. The patient's medical history, length, existence of angioedema, systemic symptoms, precipitating and aggravating variables, history of atopic disease, dust exposure, medical history, and family history of hives were all taken into consideration. To rule out infection and underlying malignancies, a history and physical examination were performed. It was discovered that

the thyroid was swollen. Blood and urine tests were performed as part of the routine. If necessary, further testing were performed. The study covered patients for whom a cause could not be determined after a thorough history, examination, and investigation.

### Observations And Results

Hundred patients with chronic urticaria who attended the outpatient section of Department of Dermatology, Venerology and Leprology were selected for the study.

**Table 1: Age distribution of patients**

Age group (Yrs)	No. of cases	Percentage
15 -24	28	28 %
25 - 34	26	26 %
35 – 44	30	30 %
45 - 55	14	14 %

The age of the patients range from 12 to 60 years. Majority of patients were below 44 years. The mean age was 30.44 years. (Table 1)

**Table 2: Sex distribution of patients**

Sex	No. of cases	Percentage
Male	26	26 %
Female	74	74 %

There were 74 females and 26 males in the study. The sex ratio being 2.85

**Table 3: Age sex distribution**

Age group (Yrs)	Males	Females
15 -24	16	12
25 - 34	4	22
35 – 44	2	28
45 - 55	4	30

The age sex distribution showed a predominance of males in the 15 to 25 year age group whereas females predominated in the all other age groups. (Table 3).

**Table 4: Duration of illness**

Duration of illness	No. of cases	Percentage
< 1 yr	38	38 %
1 yr - < 2 yrs	26	26 %
2 yrs - < 3 yrs	4	4 %
3 yrs - < 4 yrs	12	12 %
4 yrs - < 5 yrs	6	6%
>5 yrs	14	14 %

The duration of the disease range from 2 months to 25 years. 38 patients (38 %) had symptoms less than 1 year. The mean duration was 27.84 months.(Table 4)

**Table 5: Resolution of lesions**

Time	No. of Cases	Percentage
< 30 minutes	48	48 %
30 minutes - < 1 hr	18	18 %
1 hr - < 6 hrs	22	22 %
6hrs - < 12 hrs	8	8 %
12 hrs - < 24 hrs	4	4 %

In 48 % the lesions resolved in less than 30 minutes. In 4 patients the lesions lasted nearly 24 hours (Table 5).

**Table 6: Associated clinical profile**

Clinical profile	No. of cases	Percentage
Family history	0	0 %
Delayed pressure urticaria	46	46 %
Angioedema	38	38 %
Aggravation by dust	22	22 %

None of the patients had family history of chronic urticaria. Delayed pressure urticaria was present in 46 (46 %) patients. 38 (38 %) has co-existent angioedema. 22 (22%) patients gave history of aggravation of lesions on exposure to dust

(Table 6). 36 (36 %) patients gave history of exacerbation of lesions at night, while 32 (32%) patients had exacerbation in the evening. (Table 6)

**Table 7: Blood Investigations**

Investigation	Range	No. of cases	Percentage
Eosinophil Count	< 5 %	74	74 %
	5-10 %	26	26 %
	> 10 %	0	0 %
Total S. IgE (IU/ml)	< 100%	4	
	100 – 320 %	10	
	>320 %	6	

## Discussion

In this study, the clinical profile of chronic idiopathic urticaria was studied in a tertiary care centre. Patients in our study ranged in age from 12 to 60 years old, with a mean age of 30.44 years. The study included 26 males and 74 females, with a male to female ratio of 1: 2.85. Males predominated in the 15-25 year age group, while females predominated in all other age groups, according to the age sex distribution. Chronic urticaria can affect people of any age and gender, but it is more common in women in their forties and fifties<sup>9, 10</sup>. When compared to the published literature, our study's mean age was a little lower, and the sex ratio showed a bigger prevalence of females. The sickness lasted anywhere from two months to 25 years in the research. A total of 38 patients (38%) had a treatment duration of less than one year. Only 14 (14%) of the patients had a duration of more than 5 years. The average time was 27.84 months. In their study, Donnell et al discovered that 30% of patients had had the disease for less than a year, but Ozkaya found that the sickness had been present for an average of 41.4 months<sup>11</sup>. Alexander and Werner found that the average duration was only 21 months. Only 45 percent of individuals with idiopathic urticaria exhibited symptoms after a year, according to Champion et al in 1969. After a year, 80 percent of patients with idiopathic angioedema solely and 40.5 percent of patients with idiopathic angioedema and urticaria exhibited symptoms, according to Kozel et al. A favourable family history was not found in any of the patients studied, and no inheritance pattern for chronic urticaria has yet been discovered. However, HLA typing has revealed an increase in HLA-DR4 and HLA-DR8 in autoimmune patients. In a study of 220 individuals, Kozel et colleagues discovered urticaria alone in 19%, urticaria and angioedema in 29%, and angioedema without urticaria in 8%. In 51.40 percent of their patients, Donnell et al discovered delayed pressure urticaria. In our instances, we discovered a 38 percent (38 patients) angioedema and a 46 percent (46 patients) delayed pressure urticaria relationship. A history of dust worsening of lesions was found in 22% of cases (22 individuals). The amount of inhalants linked to chronic urticaria varies widely — Juhlin's study found that 2% of people had the condition<sup>12</sup>. In Juhlin's study, 53 percent of patients indicated a diurnal variation. Of

those surveyed, 23% said they had lesions primarily in the evening and 14% said they had lesions at night. This was 32 percent and 36 percent in our sample, respectively. Eosinophil count (> or = 5% ) was found in 8% of Juhlin's patients, but it was found in 26% in our research. In Juhlin's study, IgE levels were found to be generally normal in a group of 34 patients with acute or chronic urticaria, while in another study by Juhlin et al, IgE levels were found to be generally normal in a group of 34 patients with acute or chronic urticaria. Serum IgE levels were tested in 20 participants in our study. Four patients had levels below 100 IU/ml, six had values above 320, and the rest had numbers in the middle.

## Conclusions

A total of 100 people with chronic urticaria were investigated. To summarise, the patients' ages ranged from 12 to 60, with a mean of 30.44 years. The study included 26 males and 74 females, with a male to female ratio of 1:2:85. Males dominated the 15-to-25-year-old age group, while females dominated all other age groups. Urticaria lasted an average of 27.84 months. The length was less than a year in 38% of the cases. Urticaria lesions cleared up in less than 30 minutes in 48% of patients. There was no positive family history in any of the cases. In 38 percent of cases, there was accompanied angioedema, and in 46 percent, there was delayed pressure urticaria. In 22% of the cases, there was a history of lesions aggravating when exposed to dust. Additional research with a larger sample size will shed more light on the clinical characteristics of this as-yet-unknown phenomenon.

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