

Study of clinical profile of patients with chronic urticaria in a tertiary care centre

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Abstract

Introduction: Chronic urticaria negatively affects both work and social life of the patients because of its chronic relapsing course and poor response to therapy. Despite advances in research, the etiology and the reason for the varying intensity and frequency of clinical presentation still remains a dilemma. **Aim:** To study the clinical profile of chronic urticaria in a tertiary care centre. **Methods:** Patients of both sexes between 14 and 55 years with a clinical diagnosis of chronic urticaria in whom a cause was not identifiable on assessment with a standard protocol were included in the study. **Results:** Fifty patients of chronic urticaria were studied and the mean age was 30.22 years and females predominated with the male: female ratio being 1:2.85. The mean duration of urticaria was 27.42 months and in 48% of cases the urticaria lesions resolved in less than 30 minutes. There was associated angioedema in 38% and delayed pressure urticaria in 46%. **Limitations:** The limitation of the study was the small sample size. **Conclusions:** The clinical profile of chronic idiopathic urticaria in our study is comparable to other studies.


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

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Received Date: 14/11/2015 Revised Date: 26/12/2015 Accepted Date: 14/01/2016

Access this article online	
Quick Response Code:	Website: www.statperson.com
	DOI: 14 February 2016

INTRODUCTION

Urticaria is a common disorder with a lifetime incidence of 15-25%.^{1,2} When it occurs daily or almost daily for more than six weeks it is termed as chronic urticaria. This applies to all patterns of urticaria, but is most relevant to the ordinary presentation of urticaria which is used when predominantly physical, vasculitic and contact urticarias have been excluded. Up-to-date several agents and factors have been implicated in provoking and aggravating chronic urticaria. These include medications, foods and food additives, infections, contactants, inhalants, physical factors and autoimmunity. The term chronic idiopathic urticaria is used when no external provoking allergen or contributing disease process is identified, which also has more recently been labeled as chronic spontaneous

urticaria. Some guidelines and experts further subdivide chronic idiopathic urticaria patients based on serologic evidence of a presumed autoimmune etiology and call the condition chronic autoimmune urticaria. Chronic urticaria is most common in middle aged women³. Clinically wheals vary from pin point to palm-sized or larger lesions (Figure1). They may enlarge by peripheral extension to become confluent with resultant bizarre, geographic, annular or serpiginous configurations. Individual lesions generally last a few hours and resolve within 24 hours. Wheals are generally itchy and patients tend to rub rather than scratch, so excoriation marks are unusual. Wheals may be more pronounced in the evenings or premenstrually. Angioedema especially of the eyelids or lips may accompany the wheals or may occur alone. Urticaria and angioedema occur together in 49% of patients and angioedema alone in 11%.⁴ Up to 37% of patients with chronic urticaria have associated delayed pressure urticaria and occasionally other physical urticaria. This study is an attempt to throw light into the clinical profile of chronic urticaria patients in our population in North Kerala.

MATERIALS AND METHODS

The study was conducted among the patients attending the outpatient section of Department of Dermatology,

Venerology and Leprology. Patients of both sexes between 14 and 55 years with a clinical diagnosis of chronic urticaria were subjected to detailed history and examination. History relating to disease presentation, duration, presence of angioedema, systemic symptoms, precipitating and aggravating factors, history of atopic disease, dust exposure, medical history and family history of hives were taken. History and physical examination were done to rule out focus of infection and underlying malignancies. Thyroid swelling was noted. Routine blood and urine investigations were carried out. Other tests were carried out if indicated. Patients in whom a cause was not identifiable after history, examination and investigations were included in the study.

OBSERVATIONS AND RESULTS

Fifty 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	14	28 %
25 - 34	13	26 %
35 - 44	15	30 %
45 - 55	7	14 %

The age of the patients range from 15 to 53 years. Majority of patients were below 44 years. The mean age was 30.22 years.(Table 1)

Table 2: Sex distribution of patients

Sex	No. of cases	Percentage
Male	13	26 %
Female	37	74 %

There were 37 females and 13 males in the study. The sex ratio being 2.85

Table 3: Age sex distribution

Age group (Yrs)	Males	Females
15 -24	8	6
25 - 34	2	11
35 - 44	1	14
45 - 55	2	15

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	19	38 %
1 yr - < 2 yrs	13	26 %
2 yrs - < 3 yrs	2	4 %
3 yrs - < 4 yrs	6	12 %
4 yrs - < 5 yrs	3	6 %
>5 yrs	7	14 %

The duration of the disease range from 2 months to 25 years. 19 patients (38 %) had symptoms less than 1 year. The mean duration was 27.42 months.(Table 4)

Table 5: Resolution of lesions

Time	No. of Cases	Percentage
< 30 minutes	24	48 %
30 minutes - < 1 hr	9	18 %
1 hr - < 6 hrs	11	22 %
6hrs - < 12 hrs	4	8 %
12 hrs - < 24 hrs	2	4 %

In 48 % the lesions resolved in less than 30 minutes. In 2 patients the lesions lasted nearly 24 hours (Table 5).

Associated clinical profile

Table 6: Associated clinical profile

Clinical profile	No. of cases	Percentage
Family history	0	0 %
Delayed pressure urticaria	23	46 %
Angioedema	19	38 %
Aggravation by dust	11	22 %

None of the patients had family history of chronic urticaria. Delayed pressure urticaria was present in 23 (46 %) patients. 19 (38 %) has co-existent angioedema. 11 (22%) patients gave history of aggravation of lesions on exposure to dust (Table 6). 18 (36 %) patients gave history of exacerbation of lesions at night, while 16 (32%) patients had exacerbation in the evening. (Table 6)

Blood investigation

Table 7: Blood Investigations

Investigation	Range	No. of cases	Percentage
Eosinophil Count	< 5 %	37	74 %
	5-10 %	13	26 %
	> 10 %	0	0 %
Total S. IgE (IU/ml)	< 100%	2	
	100 – 320 %	5	
	>320 %	3	



Figure 1: Discrete and confluent urticarial lesions in a patient

DISCUSSION

The present study has evaluated the clinical profile of chronic idiopathic urticaria in a tertiary care centre in north Kerala.

Age and Sex Incidence

In our study the patients age ranged from 15 to 53 years and the mean age was 30.22 years. There were 13 males and 37 females in the study and the male: female ratio was 1: 2.85. The age sex distribution showed a predominance of males in the 15-25 year age group, whereas females predominated in all other age groups. Although chronic urticaria can occur in any age group and in either sex, it is found to occur more often in middle aged females³. The age and sex distribution in a few important studies on chronic urticaria are given below (Table 8)

Table 8: Comparison of age and sex distribution in different studies

Study	Mean age	Sex ratio (M:F)
Kozel <i>et al</i> [5]	38.0 years	1: 1.5
Donnel <i>et al</i> [6]	39.7 years	1:2.16
Alexander <i>et al</i> [7]	42.0 years	1:1.43
Bong <i>et al</i> [8]	44.1 years	1:1.4
Ozkaya Bayazit <i>et al</i> [9]	38.6 years	1:2.2

From the above table it is evident that the mean age in our study was a little lower and the sex ratio showed a greater preponderance of females when compared with the published literature.

Duration of illness

The duration of illness in the study ranged from 2 months to 25 years. About 38% (19 patients) had a duration less than one year. Only 7 patients (14%) had duration more than 5 years. The mean duration was 27.42 months. Donnell *et al*⁶ in his study found that the disease had been present for less than one year in 30% whereas Ozkaya Bayazit's⁹ study reported a mean duration of 41.4 months. Alexander and Werner⁷ observed a mean duration of 21 months only. Champion *et al*⁴ in 1969, found that only 45% of patients with idiopathic urticaria still had symptoms after 1 year. Kozel *et al*⁵ found that 80 % of patients with idiopathic angioedema only and 40.5 % of patients with idiopathic angioedema and urticaria still had symptoms after 1 year. A positive family history was not noted in any of the patients under study and no inheritance pattern has been so far established in case of chronic urticaria. But HLA typing has shown an increase in HLA-DR4 and HLA-DR8 in patients with autoimmune etiology¹⁰. Kozel *et al* [5] in his study of 220 patients observed urticaria alone in 19%, urticaria and angioedema in 29 % and angioedema without urticaria in 8 %. Donnell *et al*⁶ found delayed pressure urticaria in 51.40% of their patients. We found an association of 38%

(19 patients) for angioedema and 46% (23 patients) for delayed pressure urticaria in our cases. A history of aggravation of lesions by dust was elicited in 22% (11 patients) of cases. The percentage of inhalants implicated as the cause of chronic urticaria varies widely – Juhlin's study¹¹ showed an occurrence in 2%. A diurnal variation was mentioned by 53% of patients in Juhlin's series¹¹. Of this 23% gave history of lesions mainly in the evening and 14% in the night. In our study this was 32% and 36% respectively. Eosinophil count (> or = 5 %) was obtained in 8% of Juhlin's¹¹ patients where it was 26% in our studies. An elevated IgE values in 4 % was observed in Juhlin's study but IgE values were found to be generally normal in a group of 34 patients with acute or chronic urticaria in another study by Juhlin *et al*¹². In our study serum IgE levels were measured in 10 patients. Two patients had values <100 IU/ml, 3 patients had values more than 320 and the rest had values in between.

CONCLUSIONS

Fifty patients of chronic urticaria were studied. To conclude the patients age ranged from 15 to 53 years and the mean age was 30.22 years. There were 13 males and 37 females in the study, the male: female ratio being 1:2:85. Males predominated the 15-25 year age group whereas females predominated all the other age groups under study. The mean duration of urticaria was 27.42 months. In 38% the duration was less than 1 year. In 48% of cases the urticaria lesions resolved in less than 30 minutes. None of the patients had a positive family history. There was associated angioedema in 38% and delayed pressure urticaria in 46%. History of aggravation of lesions on exposure to dust was present in 22%. Further studies with bigger sample size will throw more light into the clinical profile of this still uncertain entity.

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Source of Support: None Declared
Conflict of Interest: None Declared