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A study on clinical profile of patients with chronic urticaria

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Abstract

Introduction: Chronic Urticaria (CU) is defined as wide spread short lived (<24hour) wheals occurring daily or almost daily for at least 6 weeks duration. CU is extremely disabling in its severe form and can be difficult to treat. It has a detrimental impact on both patient's work and social life. The aetiology and the explanation for the varying severity and frequency of clinical presentation are still a problem, despite advances in science.

Aim: To study the clinical profile of chronic urticaria in a tertiary care center.

Methods: Patients of both sexes with age above 12 years with a clinical diagnosis of CU for whom a cause could not be identified under a standard protocol assessment.

Results: Sixty patients with chronic urticaria were studied and the mean age was 35 years and with a female predominance of 61.7%. The percentage of patients having disease duration of more than one year is 56.7 and 37percentage of patients had generalized wheals. 45% had intense pruritus.18% of patients had angioedema.

Limitations: The study's drawback was limited sample size and short duration.

Conclusions: The clinical profile of chronic urticaria in our study is comparable to other studies.

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

Introduction

Urticaria is characterized by short lived swellings of the skin and mucosa due to plasma leakage ^[1]. Urticaria is commonly used to describe an eruption of wheals, as distinct from angioedema, although this does lead to confusion with classification of the physical urticarias. The term 'Urticaria' is increasingly being used to describe a disease that may present with wheals, angioedema or both. Wheals and angioedema often occur together and for practical purposes are similar processes resulting from superficial and deep swellings, respectively. In 49 percent of patients, urticaria and angioedema occur together and in 11 percent angioedema alone. Delayed pressure urticaria and occasionally other physical urticaria are associated with upto 37percent of patients with chronic urticaria

Urticaria is a common problem with a life time incidence of about 15-25% and point prevalence of 0.1% based on published data ^[2]. Estimates of cumulative life time prevalence of chronic urticaria have varied from 0.05% to 23.6% in the general population, but a range of 1-5% seems more realistic. Though urticaria is seen in all age groups, it occurs most frequently after adolescence, with the highest incidence in young adults. It is more prevalent in middle aged females, with a male: female ratio of approximately 1: 2 for chronic urticaria, but the ratio varies with the different physical urticarias ^[4,6]. Several agents and causes have been involved in provoking and aggravating chronic urticaria to date. Medicines, food and food additives, diseases, contactants, inhalants, physical causes and autoimmunity are all included.

The word chronic idiopathic urticaria is used when no external allergens provoking or disease contributing mechanism is known, and has also been classified more recently as chronic spontaneous urticaria.

Anaphylaxis is an acute life threatening condition induced by an immunoglobulin E (IgE) mediated allergic reaction. It consists of a combination of symptoms and signs including diffuse erythema, pruritus, urticaria and angioedema, hypotension and difficulty in breathing. A similar picture from non-allergic causes is called as anaphylactoid reaction but the term 'non allergic anaphylaxis' is now preferred.

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This study is an effort to shed light on the clinical profile of patients with chronic urticaria in our population in North Kerala.

Methodology

The study was conducted among the patients attending the out patient section of Department of Dermatology Venereology and Leprology at ACME, Pariyaram (currently GMC, Kannur) were enrolled during a period of one year. The details enquired from the patients include duration of disease, duration and distribution of individual wheals, frequency of attacks, systemic symptoms, provoking physical factors, food and drug intolerance, seasonal variation, angioedema, personal history of atopic disease. History and physical examination were done to rule out focus of infection and underlying malignancies. To rule out systemic causes of urticaria, all patients were subjected to laboratory investigations included complete blood count, urine microscopic examination and other specific investigations if indicated. It was a prospective observational study.

Inclusion Criteria

- All patients attending the out patient department of tertiary care center with recurrent urticarial wheals of more than 6 weeks duration.
- Age 12 years and above.

Exclusion Criteria

- Patients on any immunosuppressive drugs 6 weeks prior to the study.
- Patients with history of physical urticaria other than simple dermatographism.
- Patients with urticarial vasculitis.
- Patients with known type I hypersensitivity reactions.
- Pregnant females.

Results

Table 1: Age distribution of patients

Age group	No. of cases	percentage
<30	19	31.6
31-40	24	40
41-50	17	28

Of the total 60 patients, based on age distribution, they were classified into 3 groups <30 years, 31-40 years and 41-50 years. Mean age 35years.

Table 2: Sex distribution of patients

Sex	No. of cases	percentage
Male	23	38.3
Female	37	61.7

Out of 60 patients 61.7% were females and 38.3% were males.

Table 3: Duration of illness

Duration of illness	No. of cases	percentage
<1year	26	43.3
>1year	34	56.7

Total duration of the disease were classified into two groups <1year and >1year. Of total 60 patients 56.7% were showing

disease duration of more than one year and 43.3% were showing disease duration of less than one year.

Table 4: Location of lesions

Location of lesions	No. of cases	percentage
Generalised	22	36.6
Extremity	6	10
Trunk	29	48
Face	3	5

Out of 60 patients 36.6% showing generalized distribution of wheals

Table 5: Angioedema

Angioedema	No. of cases	percentage
Yes	11	18.3
No	49	81.6

Table 6: Time of the day when symptoms most severe

Time of day when symptoms most severe	No. of cases	percentage
Early morning	9	15
Day time	13	21
Evening	39	64

Out of 60 patients 64% were having severe symptoms during evening and night time.

Table 7: Associated clinical profile

Clinical profile	No. of cases	percentage
Family history	0	0
Delayed pressure urticaria	12	20
Aggravation by dust	22	36.6
Seasonal variation	10	16.6%

Discussion

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

Table 8: Comparison (1)

Authors	Sabroe <i>et al.</i>	Mamatha <i>et al.</i>	Azim <i>et al.</i>	Present study
Mean age of presentation	45	34	33	35
Male/Female ratio	88/19	44/56	3/32	23/37
Angioedema	93/107	15/100	15/35	11/60

Table 9: Comparison (2)

Study	Mean age(years)	Sex ratio(M:F)
Kozel <i>et al.</i>	38.0	1:1.5
Donnel <i>et al.</i>	39.7	1:2.16
Alexander <i>et al.</i>	42	1:1.43
Bong <i>et al.</i>	44.1	1:1.4
Ozkaya Bayazit <i>et al.</i>	38.6	1:2.2

The study done by Mamatha *et al.* and Azim *et al.* concluded that the mean age of presentation of CU was 34 and 33years respectively^[3]. In our study patients age ranged from 13 to 50 years were included and the mean age was 35years. The study done by Mamatha *et al.* Donnel *et al.* Kozel *et al.* concluded a female predominance in chronic urticaria^[7]. In our studies also we got 37females out of total 60 patients. From the above table it is evident that the mean age of presentation of illness, sex ratio and presence of

angioedema were almost similar to other studies.

The duration of illness in our study is classified into two categories disease less than 1 year and more than one year.

Of total 60 patients 56.7% were showing disease duration of more than one year and 43.3% were showing disease duration of less than one year. Donnel *et al.* In his study found that the disease had been present for less than one year in 30% whereas Ozkaya Bayazit's study reported a mean duration of 41.4 months^[8].

Alexander and Werner observed a mean duration of 21 months only. Champion *et al.* in 1969, found that only 45% of patients with idiopathic urticaria still have symptoms after one 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 aetiology.

Donnel *et al.* found delayed pressure urticaria in 51.40% of their patients. We found an association of 18.3% for angioedema and 20% for delayed pressure urticaria in our cases. A history of aggravation of lesions by dust was elicited in 36.6% of cases. The percentage of inhalants implicated as the cause of chronic urticaria varies widely- Juhlin's study showed an occurrence in 2%^[10]. A diurnal variation was mentioned by 53% of patients in Juhlin's series. Of this 23% gave history of lesions mainly in the evening and 14% in the night. In Our study out of 60 patients 64% were having severe symptoms during evening and night time.

Conclusion

Sixty patients of chronic urticaria were studied. To conclude the patient age ranged from 13 to 50 years and the mean age was 35 years. There were 23 males and 37 females in the study with a female predominance seen in our study. 56.7% of cases showing disease duration of more than one year. None of the patients had a positive family history. There was associated angioedema in 18.3% and 20% for delayed pressure urticaria. History of aggravation of lesions on exposure to dust was present in 36.6%. Further studies with bigger sample size and more duration will fetch a better result.

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