

Original Article

Comparative Assessment of Acute and Chronic Urticaria among patients visited in Dermatology Department

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ABSTRACT

Background: Urticaria commonly presents with intensely pruritic wheals, sometimes with edema of the subcutaneous or interstitial tissue. Hence; we planned the present study to assess and compare the acute and chronic urticarial among patients visiting the dermatology department. **Materials & methods:** The present investigation comparison of patients with acute and chronic urticaria. A total of 100 patients suffering from urticaria were included in the present study. Urticaria activity score (UAS) in all the patients was also obtained. At the time of eighth week of follow-up, the patients separated into two groups as acute urticaria (AU) and chronic urticaria (CU) regarding the clinical improvement. All the results were recorded and were assessed by SPSS software. **Results:** Mean age of the patients of the AU and CU group was 38.4 years and 42.2 years. Number of males in the AU and CU group was 22 and 35 respectively. Non- significant results were obtained while comparing the patients of both the study groups in terms of their clinical and demographic details. While comparing the mean UAS in between the subjects of both the study groups, significant results were obtained. **Conclusion:** Patients with AU and CU do not differ from each other in terms of demographic and clinical data. However; in terms of UAS, significant difference exist in between subjects with AU and CU.

Key words: Acute, Chronic, Urticarial

Received: 2 May 2018

Revised: 16 May 2018

Accepted: 25 June 2018

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This article may be cited as: Mohite A. Comparative Assessment of Acute and Chronic Urticaria among patients visited in Dermatology Department. J Adv Med Dent Scie Res 2018;6(8):16-19.

INTRODUCTION

Urticaria (hives) is a relatively common condition, with a point prevalence of about 0.5–1%. The peak incidence is in the range of 20–40 years. Urticaria is the general term for a cutaneous response characterized by wheals and swellings. A deeper localized swelling often associated with urticaria is called angioedema.¹⁻³

Urticaria commonly presents with intensely pruritic wheals, sometimes with edema of the subcutaneous or interstitial tissue. It has a lifetime prevalence of about 20%. Although often self-limited and benign, it can cause significant discomfort, continue for months to years, and uncommonly represent a serious systemic disease or life-threatening allergic reaction.^{4, 5} Urticaria is caused by immunoglobulin E- and non-immunoglobulin E-mediated release of histamine and other inflammatory mediators from mast cells and basophils. Diagnosis is made clinically; anaphylaxis must be ruled out. Chronic urticaria is idiopathic in 80% to 90% of cases.^{6,7}

Laboratory tests provide minimal additional information. About one half of patients with urticaria alone and 25% with urticaria and angioedema or angioedema alone are free of lesions within 1 year. With urticaria, angioedema, or both, 20% of patients experience episodes for more than 20 years.⁸

Hence; we planned the present study to assess and compare the acute and chronic urticarial among patients visiting the dermatology department.

MATERIALS & METHODS

The present investigation was commenced in the department of ENT of the medical institute and it included assessment and comparison of patients with acute and chronic urticaria. Before the starting of the study, written consent was obtained from all the patients after explaining in detail the entire research protocol. A total of 100 patients suffering from urticaria were included in the present study. Exclusion criteria for present study included:

- Patients with history of any other allergic pathology,
- Patients with urticarial vasculitis,
- Patients with physical urticaria,
- Patients with presence of any other metabolic or allergic disorder

Complete details of all the patients including the demographic and clinical data were obtained. Urticaria activity score (UAS) in all the patients was also obtained. Detailed description of the allergic lesion and its morphologic characteristic of all the patients were obtained by the means of thorough clinical examination. Combination of wheal number score and the itch severity score gave the final UAS score. Grading was done as follows:

- Grade 0: Less than 10 wheals,
- Grade 1: 10 to 50 wheals,
- Grade 2: more than 50 wheals, and
- Grade 3: Almost whole of the body is covered.⁹

Examination of all the patients was done on the follow-up. At the time of eighth week of follow-up, the patients separated into two groups as acute urticaria (AU) and chronic urticaria (CU) regarding the clinical improvement. All the results were recorded and were assessed by SPSS software. Univariate regression curve was used for assessment of level of significance.

RESULTS

A total of 100 patients were included in the present study and based on the signs and symptoms and on the duration and severity of the lesion, were divided into two broad groups; AU and CU. Mean age of the patients of the AU and CU group was 38.4 years and 42.2 years. Number of males in the AU and CU group was 22 and 35 respectively. Non- significant results were obtained while comparing the patients of both the study groups in terms of their clinical and demographic details. While comparing the mean UAS in between the subjects of both the study groups, significant results were obtained.

Table 1: Comparison of clinical and demographic details

| Parameter | | AU | CU | P- value |
|------------------|-----------|------|------|----------|
| Mean age (years) | | 38.4 | 42.2 | 0.28 |
| Gender | Males | 22 | 35 | 0.54 |
| | Females | 18 | 25 | 0.33 |
| Total subjects | | 40 | 60 | 0.56 |
| Marital status | Married | 29 | 44 | 0.61 |
| | Unmarried | 11 | 16 | 0.84 |

Graph 1: Clinical and demographic details

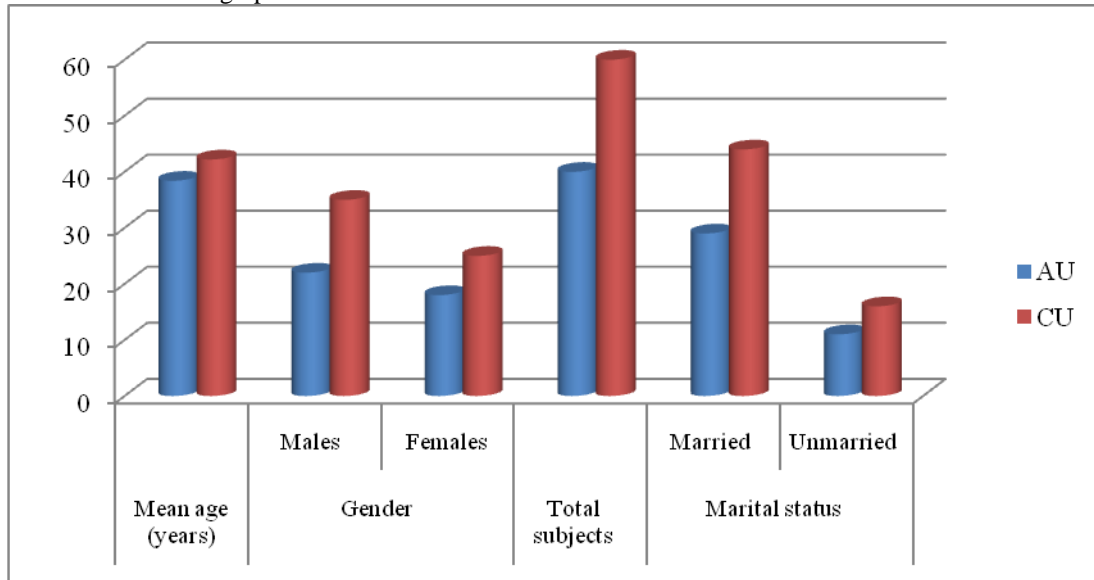
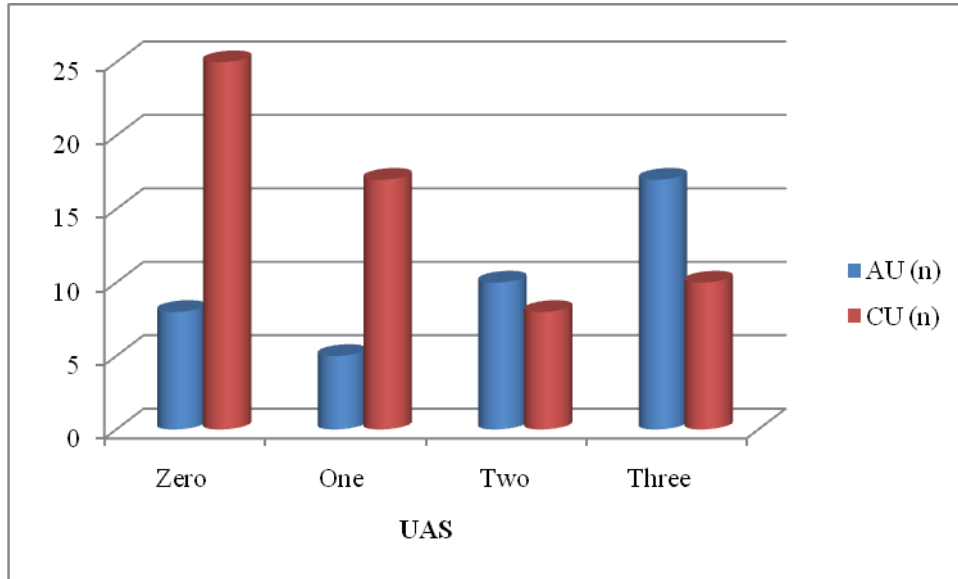


Table 2: Comparison of UAS

| UAS | AU (n) | CU (n) | P- value |
|-------|--------|--------|----------|
| Zero | 8 | 25 | 0.02* |
| One | 5 | 17 | |
| Two | 10 | 8 | |
| Three | 17 | 10 | |

*: Significant

Graph 2: UAS



DISCUSSION

In the present study, non- significant results were obtained while comparing the patients of both the study groups in terms of their clinical and demographic details. While comparing the mean UAS in between the subjects of both the study groups, significant results were obtained. Cherrez Ojeda I et al identified chronic urticaria (CU) etiologies and treatment modalities in Ecuador. They performed a retrospective study involving 112 patients diagnosed with CU using a Checklist for a complete chronic urticaria medical history. Demographic and clinical variables were collected. The etiology of CU was classified using the EAACI/GA2LEN/EDF/WAO guideline. Descriptive analyses were performed for demographical and clinical variables. Chi square tests were applied to analyze the fit of distribution and the independence of variables. P values less than 0.05 were considered significant. Among all the patients, 76.8% were diagnosed with chronic spontaneous urticaria (CSU), of which 22.3% had a known etiology or possible exacerbating condition. Food allergy was identified as the most common accompanying condition in patients with CSU (10.7%) (p<0.01).. On the other hand, 23.2% inducible urticarias (CIndU) were indentified; dermographism was the most common (10.7%) (p<0.01). Regarding treatment regimens, sg-H1-antihistamines alone represented the highest proportion (44.6%). The combination of any H1-antihistamine plus other drug was a close second (42.0%) (p<0.01). Almost 48% of CSUs of unknown etiology were treated with any antihistamine plus another drug. In patients with known etiology, sg-antihistamines alone (44.0%) was the most common management. In addition, 53.8% of CIndUs were treated with sg-antihistamines alone. Though, these associations were not statistically significant. CSU was the most frequent subtype of CU.¹⁰ Kulthanan K et al evaluated the effectiveness and the proper dosage of omalizumab for Asian chronic spontaneous urticaria (CSU) patients in a real-life setting.

They retrospectively reviewed recalcitrant CSU patients seeking treatment at the Skin Allergy Clinic, Siriraj Hospital during the 3-year period. All patients were treated with omalizumab as an add-on therapy. Standard seven-day urticaria activity score (UAS7) and medication score were used to assess omalizumab response. Of 13 patients, 9 patients (70%) responded well to 150 mg omalizumab injection every month, whereas 4 patients requiring up dosing to 300 mg. In the 150 mg group, one patient achieved complete symptom control without antihistamine intake. Most of them required antihistamines without prednisolone and ciclosporin. Onset of omalizumab was fast, usually within the first week. Though only two patients in the 300 mg group achieved complete absence of symptoms, ciclosporin and oral corticosteroids could be discontinued. No patients reported adverse effects. Omalizumab at an initial dosage of 150 mg was effective in the treatment of recalcitrant CSU among Asians. Up dosing to 300 mg was required to achieve satisfactory outcomes.¹¹ Saini SS et al evaluated the efficacy and safety of subcutaneous omalizumab as add-on therapy for 24 weeks in patients with chronic idiopathic urticaria/spontaneous urticaria (CIU/CSU) who remained symptomatic despite H1 antihistamine treatment at licensed doses. Patients aged 12-75 years with CIU/CSU who remained symptomatic despite treatment with approved doses of H1 antihistamines were randomized (1:1:1:1) in a double-blind manner to subcutaneous omalizumab 75 mg, 150 mg, or 300 mg or placebo every 4 weeks for 24 weeks followed by 16 weeks of follow-up. The primary end point was change from baseline in weekly itch severity score (ISS) at week 12. Among randomized patients (N=319: placebo n=80, omalizumab 75 mg n=78, 150 mg n=80, 300 mg n=81), 262 (82.1%) completed the study. Compared with placebo (n=80), mean weekly ISS was reduced from baseline to week 12 by an additional 2.96 points (95% confidence interval (CI): -4.71 to -1.21; P=0.0010), 2.95 points (95% CI: -4.72 to -1.18; P=0.0012), and 5.80

points (95% CI: -7.49 to -4.10; $P < 0.0001$) in the omalizumab 75-mg (n=77), 150-mg (n=80), and 300-mg groups (n=81), respectively. The omalizumab 300-mg group met all nine secondary end points, including a significant decrease in the duration of time to reach minimally important difference response (≥ 5 -point decrease) in weekly ISS ($P < 0.0001$) and higher percentages of patients with well-controlled symptoms (urticaria activity score over 7 days (UAS7) ≤ 6 : 51.9% vs. 11.3%; $P < 0.0001$) and complete response (UAS7=0: 35.8% vs. 8.8%; $P < 0.0001$) versus placebo. During the 24-week treatment period, 2 (2.9%), 3 (3.4%), 0, and 4 (5.0%) patients in the omalizumab 75-mg, 150-mg, 300-mg, and placebo groups, respectively, experienced a serious adverse event. Omalizumab 300 mg administered subcutaneously every 4 weeks reduced weekly ISS and other symptom scores versus placebo in CIU/CSU patients who remained symptomatic despite treatment with approved doses of H1 antihistamines.¹²

CONCLUSION

Under the lights of above obtained data, the authors conclude that patients with AU and CU do not differ from each other in terms of demographic and clinical data. However; in terms of UAS, significant difference exist in between subjects with AU and CU. However; further studies are recommended.

REFERENCES

- Schaefer P1. Acute and Chronic Urticaria: Evaluation and Treatment. *Am Fam Physician*. 2017 Jun 1;95(11):717-724.
- Maurer M, Bindslev-Jensen C, Gimenez-Arnau A, et al. : Chronic idiopathic urticaria (CIU) is no longer idiopathic: time for an update. *Br J Dermatol*. 2013;168(2):455–456.
- Bernstein JA, Lang DM, Khan DA, et al. : The diagnosis and management of acute and chronic urticaria: 2014 update. *J Allergy Clin Immunol*. 2014;133(5):1270–1277.
- Maurer M, Weller K, Bindslev-Jensen C, et al. : Unmet clinical needs in chronic spontaneous urticaria. A GA²LEN task force report. *Allergy*. 2011;66(3):317–330.
- Fedorowicz Z, van Zuuren EJ, Hu N: Histamine H2-receptor antagonists for urticaria. *Cochrane Database Syst Rev*. 2012;3:CD008596.
- Staevska M, Gugutkova M, Lazarova C, et al. : Night-time sedating H 1 -antihistamine increases daytime somnolence but not treatment efficacy in chronic spontaneous urticaria: a randomized controlled trial. *Br J Dermatol*. 2014;171(1):148–154.
- Metz M, Ohanyan T, Church MK, et al. : Omalizumab is an effective and rapidly acting therapy in difficult-to-treat chronic urticaria: a retrospective clinical analysis. *J Dermatol Sci*. 2014;73(1):57–62.
- Soter NA1. Acute and chronic urticaria and angioedema. *J Am Acad Dermatol*. 1991 Jul;25(1 Pt 2):146-54.
- Maurer M, Ortonne P, Zuberbier T. Chronic urticaria: an internet survey of health behaviors, symptom patterns and treatment needs in European adult patients. *Br J Dermatol*. 2009; 160: 633-641.
- Cherrez Ojeda I, Vanegas E, Felix M, et al. Etiology of chronic urticaria: the Ecuadorian experience. *The World Allergy Organization Journal*. 2018;11(1):1. doi:10.1186/s40413-017-0181-0.
- Kulthanan K1, Tuchinda P1, Chularojanamontri L1, Likitwattanaturak C1, Ungaksornpairote C1. Omalizumab therapy for treatment of recalcitrant chronic spontaneous urticaria in an Asian population. *J Dermatolog Treat*. 2017 Mar;28(2):160-165. doi: 10.1080/09546634.2016.1200710. Epub 2016 Jul 7.
- Saini SS1, Bindslev-Jensen C2, Maurer M3, Grob JJ4, Bülbül Baskan E5, Bradley MS6, Canvin J7, Rahmaoui A6, Georgiou P7, Alpan O8, Spector S9, Rosén K10. Efficacy and safety of omalizumab in patients with chronic idiopathic/spontaneous urticaria who remain symptomatic on H1 antihistamines: a randomized, placebo-controlled study. *J Invest Dermatol*. 2015 Jan;135(1):67-75. doi: 10.1038/jid.2014.306. Epub 2014 Jul 21.

Source of support: Nil

Conflict of interest: None declared

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