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Assessment of Acute Urticaria and Angioedema Patients Admitted to the Emergency Department

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ABSTRACT

Urticaria is an erythematous, edematous, itchy skin disease characterized by lesions that disappear on their own. It is one of the most common skin diseases and it is the most frequent reason for being admitted to the emergency. The purpose of this study was to analyse the urticaria and angioedema cases admitted to our emergency service and to present these with literature. After approval was taken from the Ethical Board, 164 patients older than 18 years of age who were admitted to our emergency service for urticaria or angioedema in a period of six months were included in our prospective cross-sectional clinical study. Average age of the patients was 40.02 ± 15.49 years and 56.7% were women. While 5.5% of the patients had urticaria lesion, 36.6% had angioedema, 24.4% had itch and 30.5 % had urticaria lesion and itch, 3% had findings of anaphylaxis. 8 patients (4.9%) had a family history. While the most frequent triggering factors were infection, medication use and insect sting, 69.5% of the patients were not found to have any triggering factors. As a conclusion, acute urticaria is a benign disease. Although it is not always possible to find the underlying reason, it is very important to get detailed anamnesis and to follow the patients. Successful results can be taken with contemporary therapeutic approaches.

Key words: Anaphylaxis, Angioedema, Urticaria

Acil Servise Başvuran Akut Ürtiker ve Anjioödem Hastalarının Değerlendirilmesi

ÖZET

Ürtiker eritemli, ödemli, kaşıntılı kendiliğinden kaybolan ürtika lezyonlarıyla karakterize bir deri hastalığıdır. Acil serviste en sık görülen dermatolojik patolojidir. Bizde çalışmamızda bölgesinde tek üçüncü basamak hastanemiz acil servisine başvuran ürtiker ve anjioyödem vakalarının araştırarak literatüre sunmayı amaçladık. Çalışmamız Etik Kurulu onayı alındıktan sonra prospektif kesitsel klinik araştırma olarak altı aylık sürede Acil Servisimize ürtiker ya da anjiyoödem nedeniyle başvuran onsekiz yaş üstü 164 hasta alındı. Hastaların yaş ortalaması 40,02 ± 15,49 yıldı ve %56,7'si kadındı. Hastaların %39'unda ürtiker lezyon ve %36'sında anjiyoödem mevcutken %3'ünde anafilaksi bulguları mevcuttu. 8 hastada (% 4,9) aile hikayesi mevcuttu. En sık tetikleyici faktörler enfeksiyon, ilaç kullanımı ve böcek sokmasıyken hastaların %69,5'inde tetikleyici faktör bulunamamıştır. Sonuç olarak akut ürtiker benin bir hastalıktır. Altta yatan neden her zaman bulunamasa da ayrıntılı olarak anamnezlerinin alınması ve takip altına alınması oldukça önemlidir. Güncel tedavi yaklaşımları ile başarılı sonuçlar alınabilmektedir.

Anahtar kelimeler: Anafilaksi, Anjiyoödem, Ürtiker

INTRODUCTION

Urticaria is an erythematous, edematous, itchy skin disease characterized by urticarial lesions that disappear on their own. It is one of the most common skin diseases and it is the most frequent reason for being admitted to the emergency. Clinically, it is characterized by weals on various parts of the body, in different shapes and sizes, in a pinkish red color, and progresses with burning, stings and itches. Lesions can be as macular erythema or papules and they can be localized or generalized. If urticaria involves mucosas, it is called angioedema. Acute urticaria negatively affects a patient's life quality and when it occurs together with oropharyngeal or laryngeal angioedema, it is life-threatening. In some cases, anaphylaxis can develop following angioedema and life-threatening situation becomes more serious (Köse et al. 2011). While urticaria occurs alone in 50% of the cases, it occurs with angioedema in 40% and in 10% of the cases, angioedema occurs alone (Karadag et al. 2011). It is formed by a great number of mediators, particularly histamine, released from mast cells. There are various classifications of urticaria. The most used classification is made according to the duration of the disease. Acute urticaria is defined as urticaria with lesions that regress in less than six weeks, while chronic urticaria is defined as urticaria lasting more than six weeks (Kulthanan et al. 2008). Acute urticaria is 10-100 times more frequent than chronic urticaria. Lifetime acute urticaria incidence risk is about 10-25%. The most frequent triggering factors are reasons such as drugs, infections, foods and contact allergens (Karadag et al. 2011).

In the treatment of urticaria, practical approach should be supportive and focused on symptoms. That is, first of all, triggering, accelerating and if known, etiological factors should be avoided. The first step of the pharmacological treatment consists of antihistaminics and corticosteroid IV (intravenously). Care should be taken in terms of adrenaline IM (intramuscular) and anaphylaxis in intensive cases and in the presence of angioedema (Erdem 2014).

The purpose of our study was to research the urticaria and angioedema cases admitted to the emergency service of our tertiary hospital and to present these with literature.

MATERIALS AND METHODS

After approval was taken from the Ethical Board (Adnan Menderes University Faculty of Medicine Non-Interventional Clinical Research Ethics Committee, 25.06.2015, 2015/623), our prospective cross-sectional clinical research study was planned to be completed within a period of six months. 164 patients older than 18 who were admitted to Adnan Menderes University Faculty of Medicine Emergency Service for urticaria or angioedema were included in the study. After the initial treatment of the patients, their consents were taken and they were questioned. In the first part of the study form, there were descriptive questions for demographic information about the patients, while the second part included questions such as comorbid symptoms, systemic symptoms, the hour of appearance for the lesions, presence of factors in etiology known by the patients, temporal association with the itch, seasonal association, association with physical factors (such as hot, cold, pressure, sun, stress), history of contact (physical materials, animal, etc), family history, allergy history, occupation, presence of prosthesis and drugs used. The patients' emergency service treatment, observations and outcomes were recorded in the study form. The data collected were assessed with SPSS program.

Statistics

The software package Statistical Package for the Social Sciences (SPSS) for Windows version 18.0 was used for statistical analysis. Continuous variables from the study groups were reported as mean±standard deviation and categorical variables were reported as percentages.

RESULTS

The average age of 164 patients included in the study was 40.02 ± 15.49 years and 71 (43.3%) patients were men, while 93 (56.7%) were women. In terms of patients' complaints on admission, 9 (5.5%) patients had urticaria lesion, 60 (36.6%) patients had angioedema, 40 (24.4%) patients had itch and 50 (30.5%) patients had urticaria lesion and itch. Only 5 (3%) patients had symptoms of anaphylaxis (Table 1).

25 (15.2%) of the patients in our study had a history of urticaria attack. 8 (4.9%) patients had family history. 134 (81.7%) of the patients had allergic rhinitis, 26 (15.9%) patients had asthma

and 4 (2.4%) of the patients had no family or medical history of urticaria or allergic conditions.

Table 1. The Complaints of Patients on Admission

	n	%
Urticaria	9	5.5%
Angioedema	60	36.6%
Itch	40	24.4%
Urticaria and Itch	50	30.5%
Anaphylaxis	5	3%

The most frequent triggering factors were infections in 15 (9%) patients, antibiotics in 11 (6.7%) patients, bee sting in 8 (4.9%) patients and pain killers in 7 (4.3%) patients, while idiopathic reasons were found in 114 (69.5%) patients.

In terms of therapies, 135 (82.3%) patients were treated with antihistaminic and steroid therapy, 28 (17.1%) patients were given only IV antihistaminic therapy and 1 (0.6%) patient was given adrenalin therapy. On discharge, 154 (93.9%) patients were prescribed antihistaminic pills, while 10 (6.1%) patients were prescribed antihistaminic and steroid pills.

While 137 (83.5%) of the patients were discharged from the emergency service, 26 (15.9%) were followed in the emergency service and 1 (0.6%) was hospitalized.

DISCUSSION AND CONCLUSION

Urticaria is the most frequently seen skin disease in society, it is stated that the most treated skin disease in emergency services is acute urticaria. It is difficult to find out the incidence of urticaria, which is also known as rash. While acute urticaria occurs in one part of life with a rate of 10-20% among the society, the prevalence of chronic urticaria varies between 1-3% (Erdem 2014).

In Köse et al.'s (2011) study, 71.8% of the patients were women, and the average age of acute urticaria patients was 28, while the average age of chronic urticaria patients was 43. In Kulthanan et al.'s (2008) study, average age was 37.6 years and 78% of the patients were women. In Losappio et al.'s (2014) study, average age of the patients was 35 years and 49.2% of the patients were women. In Kalkan et al.'s (2014) study, average age of the patients was 41.52 years and 80% of the patients were women. In our study, in parallel with the literature, average age of the patients was 40.02 ± 15.49 years and female gender ratio was more than half.

Whether with angioedema or not, the diagnosis of urticaria is made first of all with an extensive anamnesis and physical examination. Angioedema can occur in about 40% of patients with urticaria (Kanani et al. 2011). While urticaria is very itchy, angioedema may not be itchy, it can be painful (Karadag et al. 2011). In Losappio et al.'s (2014) study, 30.3% of the patients had angioedema, 12% had fever and 15% had other symptoms (cough, nausea, diarrhea), while 6.3% had symptoms of anaphylaxis. In Karadağ et al.'s (2011) study, 56.7% of the patients had urticarial lesion, 6.7% had only angioedema and 66.7% had acute urticaria and angioedema. 91.4% had itch in addition to urticaria. Other comorbid symptoms were burning, pain and distension. The results of our study were in parallel with the results in literature.

When the diagnosis of urticaria is made, it is very important to try to find out the possible triggering or aggregating factor. The most important triggering factors in acute urticaria are drugs, food and infections. In chronic spontaneous urticaria, etiology is not known most of the time (80%-90%) (Erdem 2014). In Losappio et al.'s (2014) study, the triggering factors in adult patients were drug use in 22.5% of the patients, insect sting in 10.5%, food in 7.9%, contact urticaria in 4.7%, infection in 3.2% and idiopathic reasons in 51.6%. In Kalkan et al.'s study, 30% of the patients stated drug use as triggering factor, 26% stated infection and 4% stated food, while 38% could not state any triggering factors (Kalkan et al. 2014). In Karadağ et al.'s (2011) study, 8.6% of triggering factors was wool clothes, 2.8% was cosmetics, 8.6% was drug and food, 19% was contact with animals, 32.4% was contact with cleansers and 6.7% was contact with plants. In Kulthanan et al.'s (2008) study, triggering factors were found as infection in 36.7% of the patients, drug use in 6.3% of the patients, food in 1.3% of the patients and insect sting in 53.2% of the patients. Similar results were found in our study.

Patients' family anamnesis and personal allergy histories should also be questioned. In Karadağ et al.'s (2011) study, 9.5% of the patients had a history of urticaria in the family. 17.1% had familial allergy history (high fever, allergic conjunctivitis,

allergic asthma), while 9.5% of the patients had individual allergy history. 26.7% had family history. In Losappio et al.'s (2014) study, 2.35% of the patients had asthma, 17.73% had allergic rhinitis, 3.92% had atopic dermatitis. In our study, 15.2% of the patients had experienced urticaria attack previously and 4.9% had family history. While there was allergic rhinitis in the anamnesis of 81.7% of the patients and asthma in 15.9%, 2.4% of the patients did not have peculiarities in their anamnesis.

The duration of treatment depends on the prevalence, intensity of the disease and the duration of the symptoms (Losappio et al. 2014). The most frequently used treatment is non-sedative antihistaminics and systemic glucocorticoids when necessary. In very severe cases and in case of angioedema, adrenalin intramuscular should be added to the treatment and care should be taken in terms of anaphylaxis (Erdem 2014). In Losappio et al.'s (2014) study, 93% of the patients were given IV corticosteroid and 78% were given parenteral antihistaminic treatment, while 8.7% were started oral antihistaminic and 1% was started oral steroid treatment. Adrenalin was used in 15 (3.2%) of the 29 patients who were diagnosed with anaphylaxis. In Karadağ et al.'s (2011) study, the patients were started routinely non-sedative new generation antihistaminics. However, due to insufficient response to antihistaminics, short-term parenteral corticosteroid therapy was added in some patients. The therapies of our patients were similar to the ones in literature.

Patients with urticaria are frequently admitted in the emergency service; however, only 6% have been associated with severe clinical picture (Losappio et al. 2014). While 137 (83.5%) of our patients were discharged from the emergency service, 26 (15%) were followed up in the emergency service and only 1 (0.6%) was hospitalized in the dermatology service.

As a conclusion, acute urticaria is a benign disease. Although the underlying reason is not always found, it is very important to take detailed anamnesis and follow the patients. Up-to-date therapies can give successful results. It should be kept in mind that urticaria is seen with angioedema with a rate of 30-40% and although rare, anaphylaxis may develop.

REFERENCES

Erdem T. (2014). An Approach to the Patient of Urticaria. Turk J Dermatol. 3, 178-82.

Kalkan G, Seckin HY, Duygu F, Akbas A, Ozyurt H, Sahin M. (2014). Oxidative stress status in patients with acute urticaria. Cutan Ocul Toxicol. 33(2), 109-114.

Kanani A, Schellenberg R, Warrington R. (2011). Urticaria and angioedema. Asthma & Clinical Immunology. 7 (1), 9.

Karadağ AS, Bilgili SG, Çalka Ö, Akdeniz N, Özkol HU, Aktar S. (2011). Clinical Evaluation of Inpatients with Acute Urticaria. Turk Arch Dermatol Venereolgy. 45, 179-183.

Köse Ş, Senger SS, Çavdar G. (2011). Focal Infections Accompanying Urticaria, a Common Skin Disease. Klimik Dergisi. 24(2), 98-100.

Kulthanan K, Chiawsirikajorn Y, Jiamton S. (2008). Acute Urticaria: Etiologies, Clinical Course and Quality of Life. Asian Pacific Joural of Allergy and Immunology. 26, 1-9.

Losappio L, Heffler E, Bussolino C, Cannito CD, Carpentiere R, Raie A, Biase MD, Bugiani M, Rolla G. (2014). Acute urticaria presenting in the emergency room of a general hospital. European Journal of Internal Medicine. 25, 147-50.