SUMMARY

Urticaria is an eruption of transient erythematous or oedematous swellings of the dermis or subcutaneous tissues. Angioedema describes the similar larger swellings of the subcutaneous tissues.

Urticaria is not a single entity with only one cause or treatment. Rather, it comprises a group of conditions with weals or angioedema. In the present study, a complete review of the available literature on the subject of urticaria was undertaken.

This study included the following; historical background, definition and classification, aetiology, pathogenesis, histopathology, clinical features and varieties, diagnosis, and treatment of urticaria.

Urticaria may be classified into acute and chronic with a time division chosen between 3 weeks and 6 months, two months being a convenient figure. Such a division is clinically useful but of little value in our understanding of the basic aetiology. Urticaria may be also classified according to the pathogenesis into:

1. Immunologic urticaria, which is further subdivided into (a) Immunoglobulin E-dependant urticaria in which the molecules of IgE are bridged by the antigenic material on the surface of mast cell resulting in its degranulation. This type includes atopic diathesis, specific antigen sensitivity, and physical urticarias. (b) Complement-mediated immunologic urticaria in which mast cell degranulation is induced as a result of complement activation. Hereditary angioedema, acquired angioedema with lymphomas, necrotizing vasculitis, serum sickness, and reactions to blood products are included in this type.

2. Non-immunologic urticaria in which mast cell degranulation is induced by non-immunologic stimuli. This type includes: direct mast cell releasing agents and agents which presumably alter arachidonic acid metabolism.

3. Idiopathic urticaria which is a common clinical entity in which different factors may be claimed as causes, but proof of their relationship is usually lacking. This classification may be useful in understanding the basic aetiology, but it is hard to apply in clinical practice.

The provoking causes of urticaria include:

1. Drugs which may induce urticaria through an immunologic or non-immunologic mechanisms. Penicillins, aspirin, and drugs causing pharmacologic histamine release are the most common drugs causing urticaria.

2. Foods and food additives in which the responsible agent for urticaria can be either food proteins or substances added to food for fcolour, preservation and taste such as yellow azo dye tartrazine and benzoates.

3. Inhalants which may provoke urticaria with or without associated respiratory symptoms.

4. Infections which include fungal infections, focal sepsis and viral infections, and protozoal and helminthic infestations.

5. Psychogenic factors which appear to have a very important role in chronic urticaria.

6. General medical disorders including connective tissue diseases, endocrine disorders such as hyperthyroidism, and gastrointestinal disorders such as gall bladder diseases.

7. Contactants which may induce urticaria through an allergic or non-allergic mechanisms.

Clinically, beside the ordinary urticaria/ angioedema, there are certain well-defined forms of urticaria which include:

1. Physical urticarias which are distinguished from other forms of chronic urticaria by their frequent appearance in young adults, the short duration of their episodic lesions, and the sharp limitation of these lesions to the areas of physical stimuli.

2. Hereditary angioedema which is manifested by attacks of swelling of distal parts of the extremities, face, genitals, airway, or abdominal viscera, occurring spontaneously or secondary to trauma. It is inherited as an autosomal dominant trait and is due to deficient activity of the inhibitor of the activated first component of complement.

3. Urticarial vasculitis which is characterized by persistant urticaria-like lesions, which resolve with residual findings such as pigmentation and purpura, and is commonly associated with arthralgia, gastrointestinal symptoms, fever, adenopathy, neurologic disorders, and Raynaud's phenomenon.

Lists of helpful diagnostic tests are available, but testing should be based on the history and physical findings. These tests include:

1. Complete and differential blood cell count.
2. Erythrocyte sedimentation rate, the elevation of which suggests the possibility of an underlying vasculitis.
3. Serum complement level which is important in the diagnosis of urticarial vasculitis and hereditary angioedema.
4. Stool examination for evidence of ova and parasites and is indicated in patients with chronic urticaria having prominent eosinophilia and gastrointestinal symptoms especially those living in, or having a history of recent travel to tropical areas.
5. X-ray films of sinuses and teeth for detection of focal infection.
6. Radioallergosorbant test (RAST) used to assess the presence of specific IgE antibodies.
7. Skin tests which include: intradermal tests with inhalants, patch testing and intracutaneous tests with penicillin, and prick tests to candida albicans.
8. Tests for the diagnosis of physical urticaria which include: mecholyl test and hot bath test for cholinergic urticaria, stroking the skin for

dermographism, ice cube test for cold urticaria, light testing for solar urticaria, and warm water test for heat urticaria.

9. Skin biopsy; which is indicated in patients with signs of vasculitis.

When a cause has been identified, e.g. a specific allergen or a physical cause, the treatment of urticaria consists of avoiding this cause whatever possible. Symptomatic treatment is appropriate when the cutaneous lesions are causing significant symptoms and the causative factors cannot be either determined or adequately avoided.

Epinephrine subcutaneously remains the drug of choice for acute urticaria or angioedema associated with laryngopharyngeal involvement.

In the treatment of chronic urticaria, the potentiating factors such as alcoholic drinks, heat, emotional stress, and aspirin should be avoided. A great deal of reassurance is important. Anticandida therapy is indicated in patients with positive prick test to candida albicans. Hydroxyzine and cyproheptadine are the most effective antihistamines for most types of urticaria. Combined treatment with hydroxyzine and H_2 antagonist, cimetidine, is often effective in controlling some cases of chronic urticaria.

Sympathomimetic drugs such as terbutaline is helpful, especially when combined with ketotifen. Oxatomide, an agent which inhibits the release of mediators by the mast cell, may be also helpful in chronic urticaria. Tricyclic antidepressants are sometimes effective.

Antihistamines are usually effective in most types of physical urticarias, but pressure urticaria is the least responsive to antihistamines and the most responsive to corticosteroids. Combined therapy with H_1 and H_2 antihistamines is benificial in symptomatic dermographism.

Long-term prophylaxis of attacks of hereditary angioedema can be achieved by antifibrinolytic agents such as epsilon aminocaproic acid and tranxamic acid, and androgenic drugs such as danazol.

Patients with urticarial vasculitis usually respond to endomethacin or high dose of prednisone.