

Urticaria

Urticaria, commonly known as hives, is a skin condition characterised by the sudden appearance of raised, itchy welts (hives) on the skin. It can affect up to 25% of the population at some time and may have a significant impact on sleep and daily life. Urticaria can be acute (lasting less than 6 weeks) or chronic (lasting more than 6 weeks). Symptoms usually resolve without treatment but may occur intermittently. Non-sedating oral antihistamines are effective in managing bothersome symptoms.

Signs and symptoms

Urticaria appears as pink or red itchy rashes or blotches on the skin. These welts can vary in size and can occur anywhere on the body. They can be as small as a pinhead, or over large areas, and are often mistaken as mosquito bites.

Urticaria occurs when histamine is released in the lining of the skin and makes the skin itch and causes blood vessels to expand and leak fluid. This results in redness and swelling.

Symptoms will occur within minutes to a few hours after exposure to the allergen. Hives usually last for up to 2 hours or may come and go for days or weeks at a time. Itching is usually worse in the evening and during the night.

Approximately 40% of patients with chronic urticaria also have angioedema. Angioedema is a deep dermal, subcutaneous or submucosal oedema resulting in swelling which generally lasts 24 hours and sometimes longer.

Triggers

Urticaria can be triggered by various factors, including:

- Allergies – food, insect stings
- Medications – antibiotics, NSAIDs
- Environmental factors – pollen, pet dander, mold, dust mites
- Physical stimuli – pressure, temperature changes, sunlight, sweating
- Infections – viral or bacterial
- Stress – emotional stress
- Autoimmune disorders

Foods such as nuts, eggs, milk and seafood may trigger reactions.

Chronic spontaneous urticaria can occur by exposure to water, sweat, sun, cold and prolonged pressure.

Medication-related causes

Many medications can trigger urticaria, including:

- Antibiotics – penicillin and sulfonamides
- Non-steroidal anti-inflammatory drugs (NSAIDs), including aspirin
- Opioids – morphine, oxycodone
- ACE inhibitors
- Anticonvulsants
- Contrast dyes – used for imaging tests

ACE inhibitors (captopril, enalapril, fosinopril, lisinopril, perindopril, quinapril, ramipril,trandolapril) are associated with provocation of angioedema and should not be prescribed to patients with urticaria and/or angioedema.

Management

Avoidance of known aggravating factors is the best strategy. Identifying specific triggers can help in managing and preventing episodes.

Applying a cold compress to the affected areas or cool showers can sooth itching and reduce swelling. Lifestyle modifications such as reducing stress can also help.

Avoidance of non-specific aggravating factors such as overheating, overexertion, and alcohol excess is also recommended. Woollen and synthetic clothes should be avoided.

Medications

Antihistamines

Non-sedating H₁ antihistamines (e.g. cetirizine, loratadine, fexofenadine, desloratadine, bilastine) are first-line therapy to reduce itching and swelling. They have a rapid onset of action (1-2 hours) and are used once daily. People with frequent symptoms may require daily antihistamines, often dosed twice daily. Higher than usual doses may be required, with up to 4 times the standard dose used in adults.

Older sedating antihistamines (cyproheptadine, dexchlorpheniramine, promethazine) are not recommended, especially in older people. Sedating antihistamines should only be used in patients with disturbed sleep related to urticaria. Sedating antihistamines should be avoided in older people due to the increased risk of falls, dizziness, hypotension, confusion and cognitive impairment. The anticholinergic effects of sedating antihistamines may cause dry mouth, blurred vision, constipation, confusion and urinary retention. They may interfere with rapid eye movement (REM) sleep, shorten sleeping time and cause drowsiness and impaired performance the next day.

Doxepin (Deptran) can also be used off-label for troublesome cases. Doxepin is a tricyclic antidepressant and a potent antihistamine. It can be used in low doses (10-20mg once daily at night) when its sedative action may be beneficial if sleep is disturbed with urticaria. However, additional care is needed to reduce the risk of falls. Even at these low doses, anticholinergic effects may be intolerable in older people. Doxepin also has a mild anxiolytic effect.

H₂ receptor blockers

H₂ antihistamines such as nizatidine and famotidine, which are commonly used for gastro-oesophageal reflux, may also be effective when added to H₁ antihistamines. H₂ antihistamines do not help urticaria on their own but can add to the effect of H₁ antihistamines.

Montelukast

The leukotriene receptor antagonist (LTRA) montelukast may be used if the patient does respond to antihistamines.

Neuropsychiatric events have been reported with montelukast. These include agitation, aggressive behaviour or hostility, anxiousness, depression, dream abnormalities, hallucinations, insomnia, irritability, restlessness, somnambulism, suicidal thinking and behaviour (including suicidality), and tremor.

Corticosteroids

Oral corticosteroids may be required in a few cases for temporary relief of acute urticaria. Prednisone or prednisolone is usually prescribed in doses of 20 to 25mg daily for a few days. Prolonged use of oral corticosteroids for chronic urticaria is not recommended as it may lead to significant adverse effects such as osteoporosis, fractures, type 2 diabetes, delayed wound healing, muscle weakness, cataracts and glaucoma. Severe rebound in urticaria may occur when ceased.

Omalizumab

Omalizumab (Xolair) is a IgE selective monoclonal antibody. In addition to being used for severe allergic asthma and severe chronic rhinosinusitis with nasal polyps, it is also approved for add-on therapy to antihistamines in symptomatic chronic spontaneous urticaria. Omalizumab consistently reduces itch within 1 to 2 weeks of commencement of therapy.

Omalizumab requires a subcutaneous injection every 4 weeks in addition to antihistamines. For treatment of chronic spontaneous urticaria, omalizumab can only be prescribed by an immunologist, allergist or dermatologist.

Immunosuppressants

More severe cases of urticaria may require immunosuppressant drugs such as ciclosporin, sulfasalazine, mycophenolate, and methotrexate.

Topical treatment

Topical treatments such as emollients, menthol 1% in aqueous cream and low strength hydrocortisone cream may provide relief for localised symptoms.

Summary

Chronic urticaria, with or without angioedema, is defined as daily symptoms of itching, hives and/or swelling recurring for more than 6 weeks. It may create anxiety and impact on quality of life. There is no cure for chronic urticaria, so the goal of management is to control or suppress symptoms. Non-sedating antihistamines are recommended as first-line therapy, in doses up to 4 times conventional doses. Other treatments are available for troublesome ongoing symptoms.

References

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