What are hives?

Hives are small to large, red and itchy skin bumps. They are caused by liberation of histamine and other chemicals from diverse cells in the skin. When a similar process affects deeper layers of the skin, a diffuse swelling- angioedema occurs. Hives can occur anywhere from head to foot. Angioedema typically occurs wherever there are loose layers of skin- eyelids, lips, face, tongue, throat, intestines, genitals or hands and feet. In patients who develop hives or angioedema, about 40% have hives only, 50% have both and 10% have angioedema only. Both hives and angioedema are caused by similar triggers.

Types & causes of hives and angioedema

Hives are quite common. 15-24% of people experience hives in their lives at least once. Hives which are less than six weeks in duration are considered acute and those that persist longer are chronic. An allergic cause is frequent in acute hives. Allergies do not play a role in more than 95% of cases of chronic hives. In fact no obvious reason (Idiopathic) is found in nearly 95% of patients with chronic hives! It is believed that autoimmunity (body’s immune system fighting its own tissues) plays a significant role in nearly half of patients with chronic hives. About 27% of patients with chronic hives have an associated autoimmune thyroid disease. In general acute hives are more common in younger people and chronic hives are more common in older populations.

Physical factors such as heat, cold, sunlight, mechanical pressure, vibration and even water could cause hives in some patients. A careful history unravels the mystery in such patients. Elimination of these triggers often resolves the problem! Cold induced hives deserve a special mention. Affected persons develop giant hives on exposure to cold. Such persons can develop shock and die following immersion in cold water and therefore should avoid such exposure. About 5% of the population suffers from dermographism. In this condition, scratching with fingers or application of firm pressure on the skin with a blunt object results in red, raised and itchy lines lasting for several minutes. This condition often has no allergic basis and could last for weeks to months. Hives which last longer than 24-48 hours, predominantly affect lower extremities and cause bruising are reflective of more sinister underlying causes such as vasculitis (inflammation of blood vessels).
Acute hives, on the other hand have multiple causes. These include allergy to foods, food preservatives, medications (prescription, OTC, vitamins, supplements or herbs), insects (bees, wasps, ants, mosquitoes, flea bites etc.), latex and x-ray dyes. Coming in contact with plants, pollens, excess dust, and chemicals/ cosmetics may also cause acute hives in sensitive people. Especially in children, acute hives could develop 1-2 weeks after viral infections (hepatitis, mononucleosis, and cold sores). Rarely can parasitic infestations cause hives. A carefully maintained diary may help unravel the mystery in rare cases of hives and angioedema caused by foods and food additives.

**Hereditary angioedema**

Hereditary angioedema affects one in 50000 people. There is a family history of Angioedema in 80% of such patients. Often it manifests during childhood but becomes more problematic as the child grows older. This form of angioedema could come for no apparent reason, following minor trauma or following surgery or dental visits. It can cause closure of airways and death. When it involves intestines, it causes significant stomach pain and could mimic a surgical emergency! It results from lack or functional deficiency of a blood protein. It can be diagnosed by special blood tests. Replacement therapy for this missing protein is undergoing clinical trials in the USA now.

**Treatment options**

Hives and Angioedema are treatable with antihistamines (such as Benadryl, ChlorTrimeton, Allegra, Claritin, Zyrtec etc.), acid reducing medications (such as Zantac, Tagamet, Pepcid etc.) and steroids. Sometimes a combination of these medications is more effective than a single medication. The antihistamines work better when taken regularly than when taken as needed. Antihistamines may cause sedation and tiredness. You should not drive, operate heavy machinery or drink alcohol while taking antihistamines. Scratching makes the rash worse and should be avoided. NSAIDs, aspirin, alcohol, heat, tight clothes and stress can aggravate the hives and angioedema and should be avoided or minimized. Liberal application of emollients daily will help reduce dry skin and itching.

Self-administered epinephrine (EpiPen or Twinject) should be carried by people who have developed hives or angioedema in association with other allergic symptoms such as throat closure or difficulty breathing or low blood pressure and by people who have cold-induced hives.

**Allergy evaluation**

In several cases of self limiting urticaria and angioedema, a cause may be obvious to the patient or physician and elimination of the cause cures the problem. However in many cases, a cause may not be found or is suspected but needs to be proved. In some patients the urticaria and angioedema could be a manifestation of more sinister underlying factors such as malignancies, lupus, more serious infections or could be part of anaphylaxis (a serious and life-threatening allergic reaction) to various allergy causing substances. Such
patients may benefit from evaluation by a physician such as an allergist and immunologist who is experienced in this area.

About the author:

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