Answer to Dermacase *continued from page 231*

4. Angioedema

Angioedema results from dermal subcutaneous extravasation of fluid that leads to localized edema. It is thought to be associated with urticaria in 50% of cases; the pathophysiology is similar for both. Localized anaphylaxis causes vasodilatation and vascular permeability of superficial (urticaria) or subcutaneous and deeper (angioedema) dermal tissue. The skin, gastrointestinal tract, and respiratory tract are most commonly involved.[1]

Symptoms and causes

Clinically, angioedema presents with acute subcutaneous swelling, usually of the face (eyelids, lips, ears, and nose) and less often of the extremities or genitalia.[2] It is often asymmetric and can be disfiguring and frightening for patients. Involvement of the gastrointestinal tract can manifest as intermittent unexplained abdominal pain.

Angioedema might also be associated with a generalized anaphylactic reaction that can be fatal if the upper airway is compromised.[3] In comparison with urticaria, angioedema is typically not pruritic, but can cause a burning sensation.[4]

While often idiopathic, angioedema can also be induced by medications, allergens (eg, food), and physical agents (eg, vibration or cold). Classically, 10% to 25% of cases have been ascribed to angiotensin-converting enzyme inhibitor therapy,[5] where angioedema occurs in 1 to 2 out of 1000 new users. Angiotensin-converting enzyme inhibitors are thought to decrease levels of angiotensin II and to stimulate production of a potent vasodilator, bradykinin, a process that can lead to angioedema. Lesions can appear immediately or months after starting the drug. Other potential triggers include penicillins, nonsteroidal anti-inflammatory drugs, and radiographic contrast media.[2]

Management

It is prudent to refer patients with suspected angioedema to allergy specialists for investigation because investigation of some cases might actually unmask a C1-esterase inhibitor (C1-INH) deficiency of the compliment and kallikrein-kinin system.[2] Two rare but well described categories exist: hereditary angioedema, which is transmitted in an autosomal-dominant fashion, and acquired angioedema, which can be associated with autoimmune disorders and B-cell lymphoproliferative malignancies.[4] Immune complexes continuously activate C1 which can lead to consumption of C1-INH and precipitate angioedema. Low serum C4 is a sensitive but nonspecific marker for hereditary and acquired C1-INH deficiency.

Urticarial, neoplastic, and autoimmune workups might also be warranted.[1,2] Treatment of angioedema is largely symptomatic and supportive. Airway patency must be ensured if the respiratory system is involved.[3] Avoidance of known trigger factors, such as associated medications, is paramount. Angiotensin-converting enzyme inhibitors are contraindicated for patients with C1-INH deficiency, and using angiotensin II receptor blockers is controversial for those with a history of angiotensin-converting enzyme inhibitor–induced angioedema. Cool, moist compresses and antihistamines can be used to control burning. Patients with hereditary angioedema should avoid violent exercise and activities with a high risk of trauma. The attenuated androgens danazol or stanozolol increase the amount of active C1-INH and are used for prevention of hereditary angioedema.[6]

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How to have beautiful children

During pregnancy the mother should often have some painting or beautiful figures before her eyes, or often contemplate some graceful statue. She should avoid looking at, or thinking of, ugly people or those marked with disfiguring diseases. She should take every precaution to escape injury, fright, and disease of any kind, especially chickenpox, erysipelas, or such disorders as leave marks on the person. She should keep herself well nourished, as want of food nearly always injures the child. She should avoid ungraceful positions and awkward attitudes, as by some mysterious sympathy these are impressed on the child she carries. Let her cultivate grace and beauty in herself at such a time, and she will endow her child with them. As anger and irritability leave imprints on the features, she should maintain serenity and calmness.

Napheys GH. *The physical life of woman: advice to the maiden, wife and mother.* Philadelphia, Pa: David McKay, Publisher; 1893.