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Gout

Gout is a type of inflammatory arthritis that can occur in any joint. It is caused by deposition of needle-like crystals in the joint, due to excess uric acid in the blood stream. The body then forms an inflammatory reaction to the crystals, causing the characteristic sudden onset of sharp, intense pain, swelling, and redness. The most commonly affected joints are the big toe, knee, and ankle. Deposits of uric acid crystals can form in the soft tissues of the hands and feet, usually adjacent to joints, called tophi.

Symptoms:

Gout typically comes in “attacks”, where there is an acute episode of sudden onset intense pain, swelling, redness and warmth. The joint can often look infected as the symptoms are similar. The severe symptoms are often disabling and require medical treatment. With recurrent attacks, the joint can become arthritic, due to destruction of the articular (joint cartilage) that results from the inflammatory response. Gout attacks typically last 3-10 days but severe attacks can cause symptoms for several weeks. Symptoms typically diminish slowly, even without treatment, but treatment can improve symptoms more rapidly.

Cause:

Gout is caused by crystal deposition in the joints that is typically the result of hyperuricemia (excessive uric acid level in the blood). Hyperuricemia may be caused by dietary factors, such as excess alcohol, red meat, fish, or shellfish. It is sometimes the “disease of the rich” or the “disease of gluttony” but there are many other factors associated with the development of gout. Risk factors include: male sex, certain associated medical conditions (diabetes, kidney disease, hypertension), medications (diuretics, aspirin), and being overweight. The condition often runs in families.



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Diagnosis:

A careful history and physical examination may reveal gout. X-rays are usually obtained to evaluate the bony anatomy, and to assess for arthritic changes. Deposits (tophi) can sometimes be seen on x-ray. Advanced imaging (CT, MRI, ultrasound) is not usually necessary. Gout can be diagnosed with a blood test (uric acid level), but elevated uric acid does not always cause out, and people can have a gout attack with a normal uric acid level. The gold standard for diagnosis is evaluation of joint fluid obtained by aspiration (removal of fluid through a needle). The fluid analysis may reveal the characteristic needle-like crystals.

Treatment:

Gout is usually treated medically. There are medications that are used for an acute attack (colchicine, NSAIDS), and medications that can help prevent attacks in individuals who have frequent attacks (allopurinol, uric). Steroid injections are frequently used for severe joint attacks; this allows fluid to be obtained for analysis and confirmation of the diagnosis. Steroid pills (Medrol dose-pack) are occasionally prescribed for severe attacks in several joints, or in those who fail to respond to a steroid injection into the affected joint.

Arthroscopic surgery may be indicated for gout that does not respond to non-surgical treatment. Surgery is typically done in an outpatient surgical setting, and can help by removing inflamed joint lining tissue, and reducing the crystal burden in the joint. Gout can lead to destruction of joints, which may then require surgical reconstruction.