

GOUT



Centurion
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Shaping Lives...
Empowering Communities...

By

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INTRODUCTION:

Gout is a form of arthritis that is caused by a build-up of uric acid crystals in the joints, leading to inflammation and pain. Uric acid is a waste product that is normally filtered out of the body by the kidneys, but in some people, the body produces too much uric acid or the kidneys are unable to remove it effectively

ETIOLOGY:

- **Genetics:** Some people are genetically predisposed to produce higher levels of uric acid, or to have kidneys that are less efficient at removing uric acid from the body.
- **Diet:** Eating foods that are high in purines, such as red meat, shellfish, and organ meats, can increase uric acid levels in the blood.
- **Alcohol consumption:** Drinking alcohol, particularly beer, can increase the risk of gout by increasing uric acid production and impairing the kidneys' ability to remove uric acid from the body.
- **Obesity:** Being overweight or obese can increase the risk of gout by increasing the production of uric acid and reducing the kidneys' ability to remove it from the body.
- **Medical conditions:** Certain medical conditions, such as hypertension, diabetes, and kidney disease, can increase the risk of gout.
- **Medications:** Certain medications, such as diuretics and aspirin, can increase uric acid levels in the blood and increase the risk of gout.

PATHOPHYSIOLOGY:

- Uric acid is a normal waste product that is produced by body.
- Purines breaks down in to uric acid, which are found in many foods and drinks.
- Normally, uric acid is dissolved in the blood and filtered out of the body by the kidneys.
- However, if there is too much uric acid in the blood or the kidneys are unable to filter it out effectively, it can accumulate in the body and form crystals.
- When these crystals accumulate in the joints, they can cause inflammation, swelling, and pain, which are the hallmark symptoms of gout.
- The joint at the base of the big toe is the most commonly affected, but gout can also affect other joints, such as the ankle, knee, wrist, or elbow.

CLINICAL MANIFESTATION:

- Intense joint pain
- Swelling and redness
- Limited mobility
- Fever
- Tophi

DIGNOSIS:

- Physical examination & family history
- **Joint aspiration:** This involves using a needle to remove fluid from the affected joint, which can be analyzed for the presence of uric acid crystals.
- **Blood test:** A blood test can measure the level of uric acid in the blood. However, this test alone is not sufficient to diagnose gout, as some people with high uric acid levels do not develop gout, while others with normal uric acid levels may have gout.

- **X-ray:** An X-ray may be used to check for joint damage or other conditions that may be causing joint pain.
- **Ultrasound:** An ultrasound can be used to check for the presence of uric acid crystals in the joints.
- **Dual-energy CT scan:** This specialized imaging test can detect the presence of uric acid crystals in the joints, even if they are not causing symptoms.

PHARMACOLOGICAL MANAGEMENT:

- **Nonsteroidal anti-inflammatory drugs (NSAIDs):** These drugs, such as ibuprofen or naproxen, can help relieve pain and inflammation during a gout attack.
- **Colchicine:** This drug can help reduce inflammation and pain during a gout attack, and may also be used to prevent future attacks.
- **Corticosteroids:** These drugs, such as prednisone, can help reduce inflammation and pain during a gout attack.
- **Xanthine oxidase inhibitors:** These drugs, such as allopurinol or febuxostat, can help reduce uric acid levels in the blood and prevent future gout attacks.
- **Uricosuric drugs:** These drugs, such as probenecid, help increase the elimination of uric acid from the body, which can help prevent gout attacks.

NON- PHARMACOLOGICAL MANAGEMENT:

- **Maintain a healthy weight:** Being overweight or obese can increase the risk of developing gout. Losing weight through a healthy diet and exercise can help reduce the risk.
- **Limit alcohol consumption:** Drinking too much alcohol, particularly beer and liquor, can increase the risk of gout. Limiting alcohol consumption can help prevent gout attacks.
- **Stay hydrated:** Drinking plenty of water and other fluids can help prevent gout attacks by flushing out uric acid from the body.
- **Eat a healthy diet:** Eating a diet that is low in purines, which are found in foods such as red meat, shellfish, and organ meats, can help prevent gout attacks. A diet that is high in fruits, vegetables, and whole grains may also help reduce the risk of gout.
- **Exercise regularly:** Regular exercise can help maintain a healthy weight and reduce the risk of gout.
- **Take medications as prescribed:** If you have been prescribed medication to lower uric acid levels, it is important to take it as directed to prevent gout attacks.