

Arthritis due to deposition of monosodium urate monohydrate crystals in previously normal tissues causing acute inflammation and eventual tissue damage. The four types of gout are: Asymptomatic, hyperuricaemia, acute gout, and intercritical gout & chronic tophaceous gout.

Classification

The condition can be classified into 1° or 2° gout depending on the cause of hyperuricaemia:

- Primary gout occurs mainly in men age 30-60 years presenting with acute attacks.
- Secondary gout normally due to chronic diuretic Rx. Older M & F, assoc with OA.

Pathogenesis

It affects both upper and lower limbs with acute attacks. Less often it presents with painful, tophaceous deposits (\pm discharge) in Heberden's and Bouchard's nodes.

- Most pts with hyperuricaemia never \rightarrow gout and gouty pts may be normouricaemic.
- Patients can be over-excreters of uric acid, normo-excreters or under-excreters.
- Most cases of primary gout are due to undersecretion. <10% due to overproduction.

Epidemiology

- Fairly common.
- 9M:1F

Risk factors

- Male sex
- Meat & seafood
- Alcohol (>10g/d)
- Diuretics
- Obesity
- Hypertension
- IHD
- Diabetes mellitus
- CRF
- High triglycerides
- Malignancy



Presentation

- Acutely inflamed joint typically over 6-24hr period
- 50% of all attacks & 70% 1st attacks affect 1st MTPJ ("podagra").
- Other sites often affected are: Knee, midtarsal joints, wrists, ankles, small hand joints, elbows
- Chronic tophaceous gout - large irregular firm white-yellow nodules mainly around extensor surfaces of fingers, hands, forearms, elbows, achilles tendons and ear.

Investigations

Urine: 24hr renal uric acid secretion

Blood: FBC, uric acid (poor sensitivity & specificity), CMP, BSL, lipids

Joint aspirate: Gram stain, WCC, microscopy - monosodium urate (MSU) crystals (negatively birefringent) or tophi for gout.

Imaging: chronic gout - punched out lesions, sclerosis and tophi may be seen.

Management

Supportive: Ice pack, rest, regular paracetamol±codeine,

Manage risk factors: ↓hyperuricaemic drugs (thiazides and loop diuretics, low dose aspirin < 1g/day, pyrazinamide, ethambutol, nicotinic acid, ciclosporin), lose wt, ↓meat/seafood, ↓EtOH, treat HT/renal impairment/hyperlipidaemia/vascular disease.

Anti-inflammatories:

- NSAIDs - Avoid aspirin (continue if on IHD antiplatelet dose). **Indomethacin** or **diclofenac** 50mg tds. Risk of GIT SE esp if high EtOH intake. OR
- **Colchicine** - 0.5mg/hr until better, max 6mg (3mg if renal/liver disease), or diarrhoea.
- Steroids - 2nd line. **Prednisolone** 10mg bd x 5d, then taper over 2wks. Injs may help.

Uricosuric drugs:

- **Probenecid, losartan.**

Prophylaxis: If regular attacks. Delay until 2-3wks after acute attack resolves.

- Co-prescribe colchicine or NSAID to prevent gout whilst initiating Rx
- **Allopurinol** 300mg OD - 1st choice esp if impaired renal function or calculi present.
- **Sulfinpyrazone** - alternative to allopurinol or as adjunct in resistant cases. **CI:** if RF
- **Colchicine** - 0.5mg bd
- Low dose corticosteroids and NSAIDs have also been used

Complications

- Recurrent painful episodes
- Renal disease: calculi (10-25%, urate or oxalate), chronic urate nephropathy.
- Severe degenerative arthritis
- Secondary infections
- Carpal tunnel syndrome (rare)
- Nerve or spinal cord impingement