Gout

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Monoarthropathy caused by deposition of monosodium urate crystals in hyperuricaemia.

Hyperuricaemia Risk Factors

- Male gender
- Chronic kidney disease
- Diuretics
- Purine rich diet: alcohol, meat, seafood
- Obesity

Clinical features

- Tender, erythematous, inflamed joint
    - Usually monoarthritis
    - Commonly affects first metatarsophalangeal joint
    - Arthralgia worse at night
- Acute episode lasts for ~2 weeks
- Other features of hyperuricaemia
    - Gouty tophi
    - Renal nephrolithiasis

Investigations

- Bloods: uric acid (hyperuricaemia may be seen in gout)
- Gold standard: needle aspiration of synovial fluid
    - Send for polarising microscopy
        - Gout = negatively birefringent needle shaped crystals (**N**egative **N**eedles)
        - Pseudogout = positively birefringent rhomboid shaped crystals
    - Send for microbiology – rule out septic arthritis
- X-Ray (see features below)

Management

- Treat cause
    - Lifestyle: keep hydrated, avoid purine rich food/ drink, avoid fasting, loose weight
    - Medication review: thiazides and loop diuretics can trigger gout
- Acute management
    - NSAIDS or colchicine
- Prevention
    - Allopurinol

  NB. Allopurinol can paradoxically trigger an acute episode of gout when initiated, so wait 2 weeks after an acute attack before starting and offer NSAID/ colchicine cover for first 1-3 months

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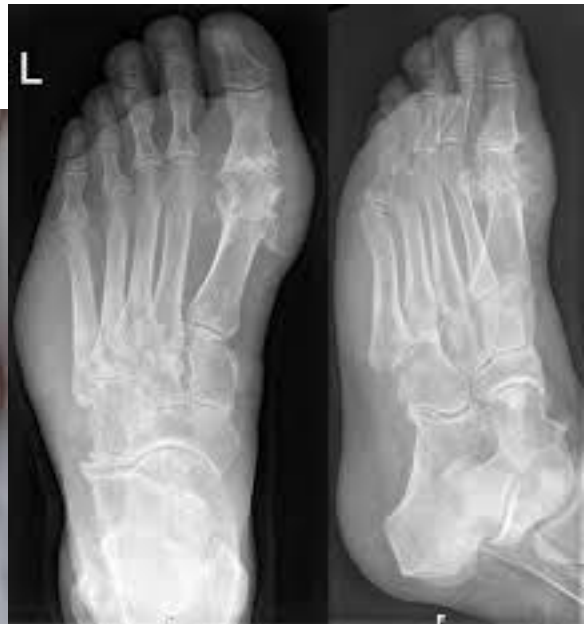
Gout at the first metatarsophalangeal joint



Classic features of gout on X-Ray:

- **Soft tissue swelling around a single joint**
- **Erosions**
- **Sclerosis**
- **Peri-articular tophi (punched out lesions in bone)**

Note: <u>NO</u> loss of joint space

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