

### Clinical Diagnosis of Gout:

Evidence of urate crystals on joint aspirate would be gold standard but is rarely required. A typical history is a rapid onset, severe joint pain reaching its maximum over 6 - 12 hours, with swelling and erythema. 50-75% of cases affect the first MTP joint (known as Podagra) but other common joints are mid-foot, ankle, finger joints, wrists and elbows. Tophi also support diagnosis. Serum urate does not have to be raised to make a diagnosis of gout.

### SEPTIC ARTHRITIS MUST BE EXCLUDED AS DIFFERENTIAL DIAGNOSIS

Red flags are systemic features, gradual onset of pain, and not improving after 3-4 days of treatment. If septic arthritis suspected, refer to Orthopaedics immediately as an emergency.

### Evaluate risk factors:

- Stop or change any precipitating treatment if appropriate. Common precipitating drugs include loop and thiazide diuretics, aspirin, and some cytotoxic drugs
- Screen for heart disease, metabolic syndrome, CKD, hypertension and diabetes. Perform BP, BMI, U&Es, HbA1c and lipids and ask about smoking.
- Screen for alcohol intake. Beer and spirits in particular increase risk of gout. Advise patients to reduce alcohol intake if necessary
- High fructose (in many fizzy drinks), seafood and meat consumption also increase the risk. Click for patient information
- Overweight patients should be counselled on diet and weight loss.
- Onset of gout aged <30 suggests renal disease or enzymatic disorders, is often associated with genetic causes and may require more aggressive investigation and treatment

### Treat Acute Attack as early as possible:

- 1<sup>st</sup> line is an NSAID (if no contraindications) and PPI until attack has resolved eg Naproxen 500 mgs bd.
- 2<sup>nd</sup> line is Colchicine, if NSAIDs are contraindicated, not tolerated, ineffective in previous attacks or if patient prefers this to NSAIDs. Use Colchicine 500 mcgs twice a day for up to 2 weeks.
- 3<sup>rd</sup> line is Prednisolone, if both NSAIDs and Colchicine are contraindicated or not tolerated. Use 30 mgs OD for 7 days then stop. Intramuscular steroid can also be considered (eg Methylprednisolone 120 mg IM stat)
- 4<sup>th</sup> line: Combination of both NSAID and Colchicine or NSAID and Prednisolone

If large joints are affected (e.g. knee, ankle): Aspirate, send synovial fluid for MCS (to rule out sepsis) and monosodium urate crystal testing, and inject with steroid). If no one in the practice is able to do this, discuss with the rheumatology registrar on call or HAMU consultant to arrange. Review patient 4-6 weeks after acute attack, including measurement of uric acid

### **DO NOT STOP ALLOPURINOL IN AN ACUTE ATTACK**

### PROPHYLAXIS OF COMMON GOUT

Offer prophylaxis with Allopurinol if the patient has:

- 2 or more attacks of gout in a 12 month period
- Tophi
- Chronic gouty arthritis
- Joint damage
- Renal impairment (eGFR<60ml/min)
- A history of urolithiasis
- Primary gout starting at a young age
- Risk factors that cannot be modified such as chronic diuretic use
- Allopurinol should be started 2-4 weeks after an attack of gout.
- Check U&Es and serum urate levels before Allopurinol is started.
- Start Allopurinol at 100 mgs OD (or 50 mgs if has renal impairment).
- The dose can be increased by 100 mgs every 4 weeks depending on uric acid level, aim for less than 360 micromol/l.
- Allopurinol can precipitate an acute attack so either an NSAID or Colchicine should be prescribed at the beginning of treatment, for a total of 2-4 weeks.
- Uric acid and renal function should be measured every 3 months in the first year of Allopurinol treatment and once a year thereafter. HbA1c and lipids should also be measured every year.
- Usual maintenance doses of Allopurinol are:
  - Mild-moderate: 300 mgs daily
  - Moderate-severe: 300-600 mgs daily (in divided doses eg 300 mgs BD)
  - Severe: 700 - 900 mgs daily (in divided doses eg up to 300 mgs TDS)
- Use maximum dose of 100 mgs if has renal impairment. If this is ineffective and the patient needs dose escalation, refer to Rheumatology.
- If Allopurinol is failing to control attacks, refer to rheumatology for treatment with Febuxostat