**13. Gout By Ilana Ramer Bass**

**Overview:**

**Gout** = monosodium urate crystal depositon disease

* Caused by extracellular fluid urate saturation which exceeds solubility and the deposits in the joint spaces
* Natural history:
  + Acute gouty arthritis
  + Intercritical (or interval) gout (asymptomatic)
    - 62% have a 2nd attack within the 1st year; 78% within 2 years, 93% within 10 years
  + Chronic articular and tophaceous gout
* Acute Gouty Arthritis
  + First presentation is usually monarticular
  + 80% of initial attacks involve the lower extremity, most often the base of the great toe (first MTP joint) called podagra
    - Severe pain, redness, warmth, swelling and disability
    - Onset more often at night—low cortisol levels
  + Provoking factors:
    - Trauma, surgery, starvation, fatty foods, dehydration, any drugs that raise or lower serum urate concentrations (allopurinol, thiazide or loop diuretics, ASA), alcohol consumption, ingestion of meat/seafood
* Chronic tophaceous gout
  + Collections of solid urate accompanied by chronic inflammatory and often destructive changes in the surrounding connective tissue

**Gout at IMA**

* If suspect gout, must confirm diagnosis with arthrocentesis and analysis of synovial fluid
* Refer to “MSK clinic” or “Rheumatology” for joint aspiration
  + They will send cell count, differential, gram stain, culture, and look under polarizing light microscopy for crystals
  + Must rule out: septic arthritis, trauma, pseudogout (calcium pyrophosphate depositon)
* Treatment algorithm:
  + Any contraindication to NSAIDs (AKI, CKD, CHF, PUD, on A/C)?
    - 🡪 If not, then treat with NSAIDs- naproxen 500mg q12hrs or indomethacin 50mg q8hrs
    - 🡪 If yes, then treat with colchicine- not to exceed 1.8mg on the first day (can be taken 0.6mg three times that day or first dose 1.2mg followed by 0.6mg an hour later)
      * 🡪 If colchicine contraindicated (severe renal or liver disease) and only 1 joint involved, consider intra-articular glucocorticoids
        + 🡪 If >2 joints involved, consider oral glucocorticoids (prednisone 30-40mg daily until resolution begins, then taper over 7-10 days)
  + Start allopurinol AFTER the acute gouty attack
  + Avoid thiazide/loop diuretics for blood pressure control in these patients