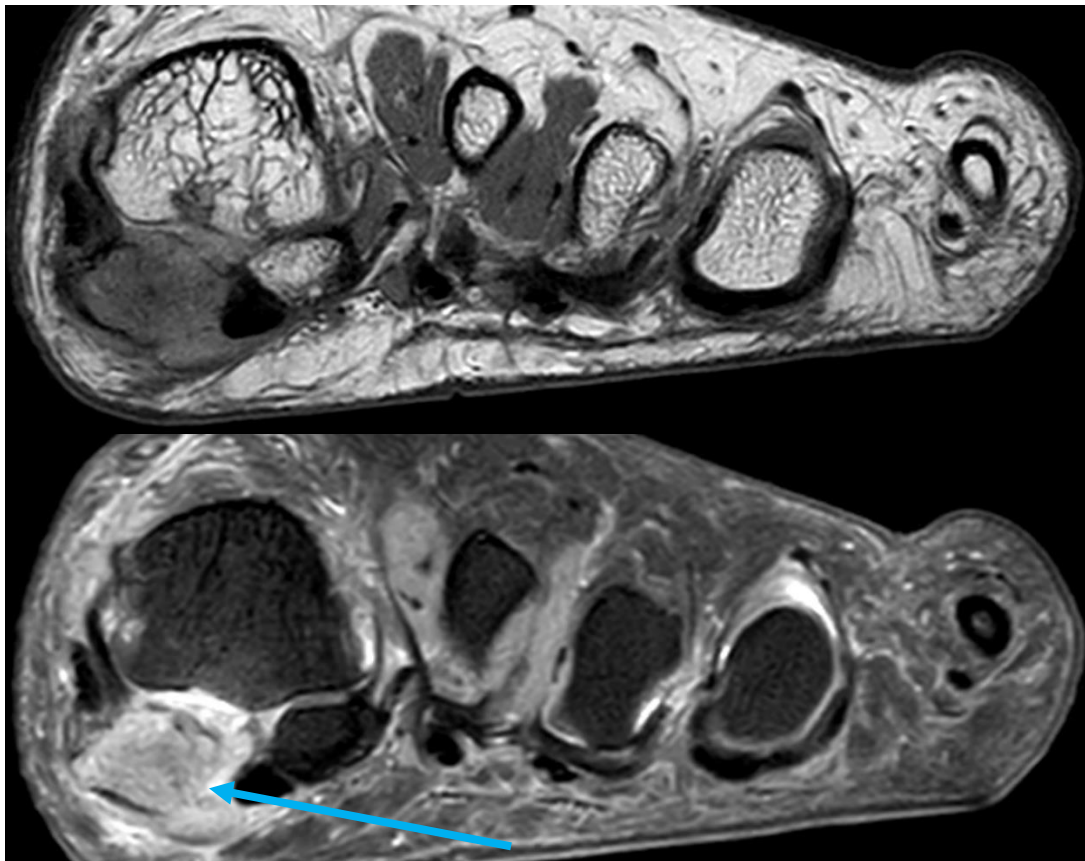


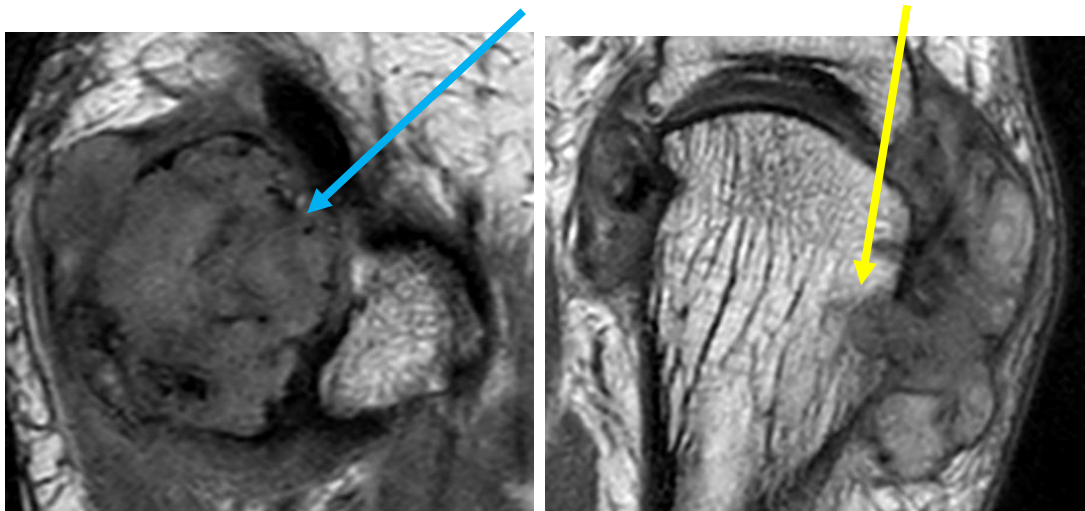
27 M with recurrent bilateral hallux MTJ and plantar forefoot pain

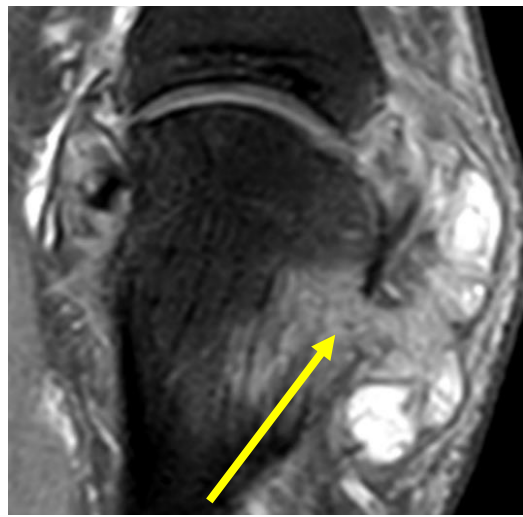
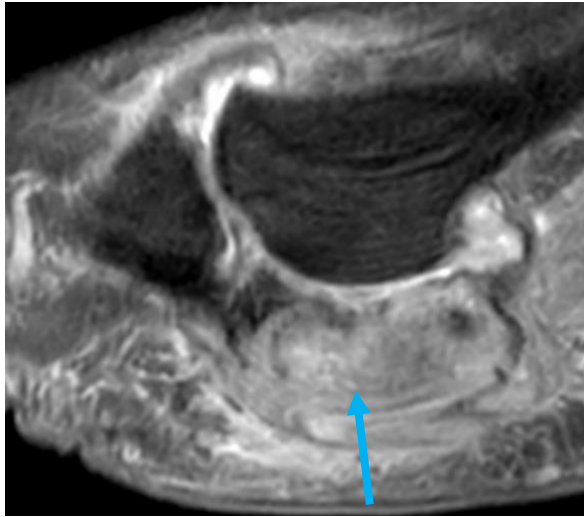
MRI and CT Findings:

- Expansile destructive / infiltrative mass obliterating the medial sesamoid bones bilaterally
- 1st MTPJ effusions with florid synovial proliferation and abnormal soft tissue partially encasing FHL – draped around the medial capsule and ligament
- Erosions forming in the right first metatarsal head
- CT scanning again nicely demonstrates the medial sesamoid bone destruction
- CT illustrates soft tissue calcifications / tophaceous deposits

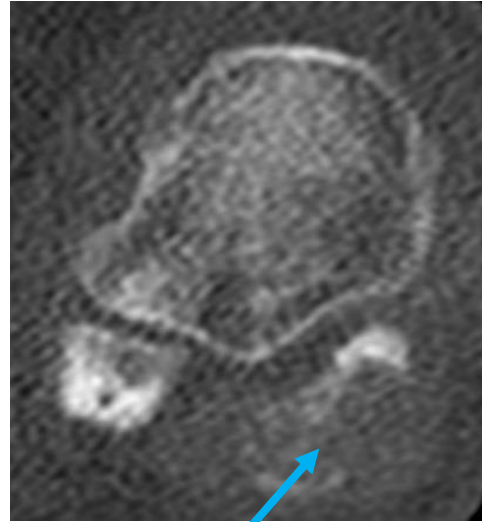
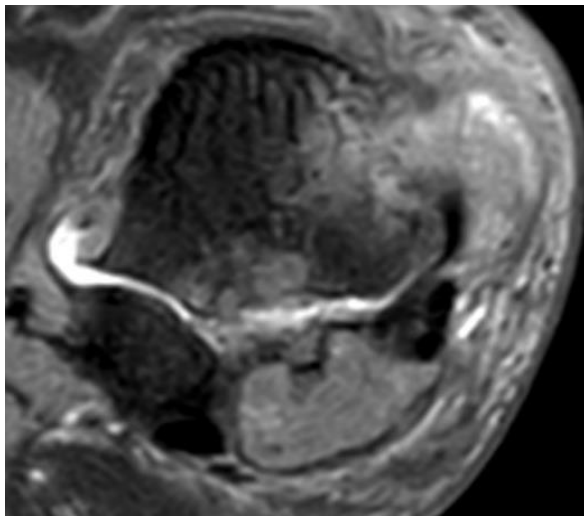


Coronal (above) and axial images (below) - destructive mass sesamoid and erosion MT head





Sagittal and Axial PD SPAIR – Mass, effusion, florid synovitis and MT head erosion



Coronal PD SPAIR and corresponding Coronal CT – osseous destruction sesamoid

Discussion

- Very rare unusual case of probable intra-osseous gout involving medial sesamoids bilaterally
- MRI delineates in exquisite detail the osseous, soft tissue and intra-articular findings aiding diagnosis
- Bilateral process indicative of systemic inflammatory pathology (unlikely to represent neoplastic lesions)
- More common sesamoid pathologies – sesamoiditis, fracture and osteonecrosis
- Neoplastic, infectious and inflammatory aetiologies are rare
- Gout – disorder of uric acid metabolism resulting in deposition of monosodium urate crystals in joints/soft tissues
 - Serum marker uric acid
 - Commonly affecting hallux MTPJ but *not* sesamoid complex

Further Reading:

Mair SD, Coogan AC, Speer KP, Hall RL. Gout as a source of sesamoid pain. *Foot Ankle Int.* 1995;16(10):613-616.
 Reber PU, Patel AG, Noesberger B. Gout: rare cause of hallucal sesamoid pain: a case report. *Foot Ankle Int.* 1997;12(18):818-820.
 Liu S-Z, et al. Isolated intraosseous gout in hallux sesamoid mimicking a bone tumor in a teenaged patient. *Skeletal Radiol.* 2003;32(11):647-650.
 Balutis E, Pino A. Gout Causing Isolated Sesamoid Destruction Mimicking a Neoplastic Process. *Am J Orthop.* 2015;44(10):398-400.