

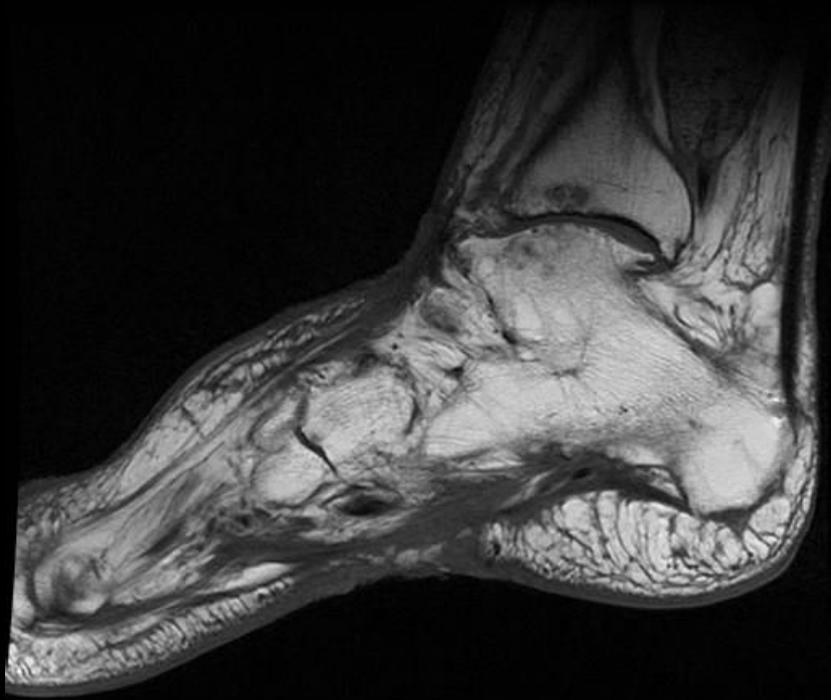


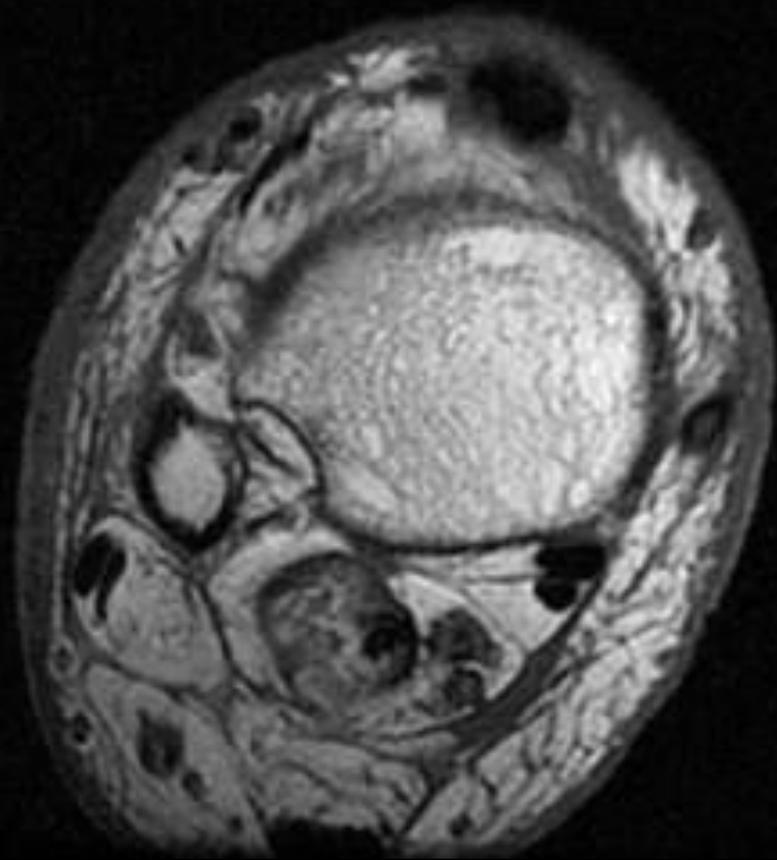
Diabetic Male Multiple Medical Problems Rule out Osteomyelitis

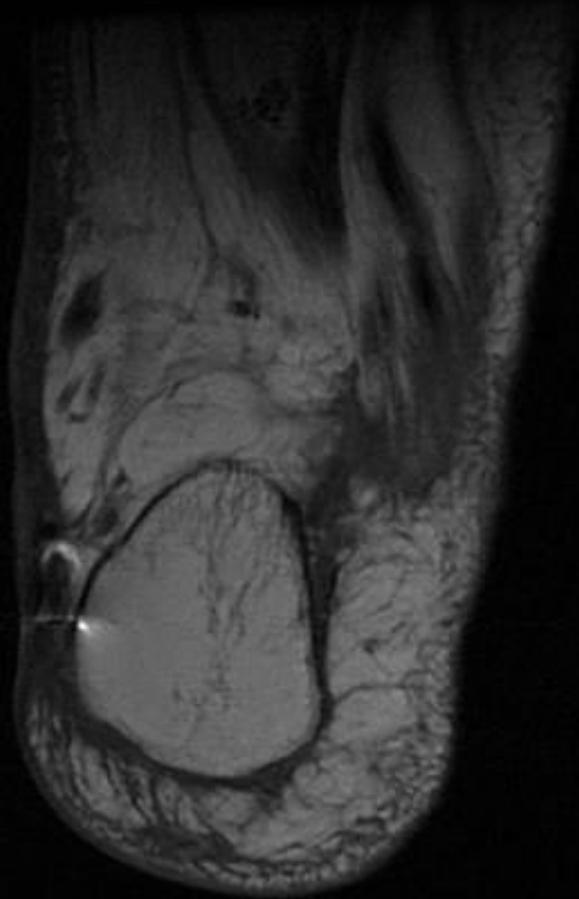
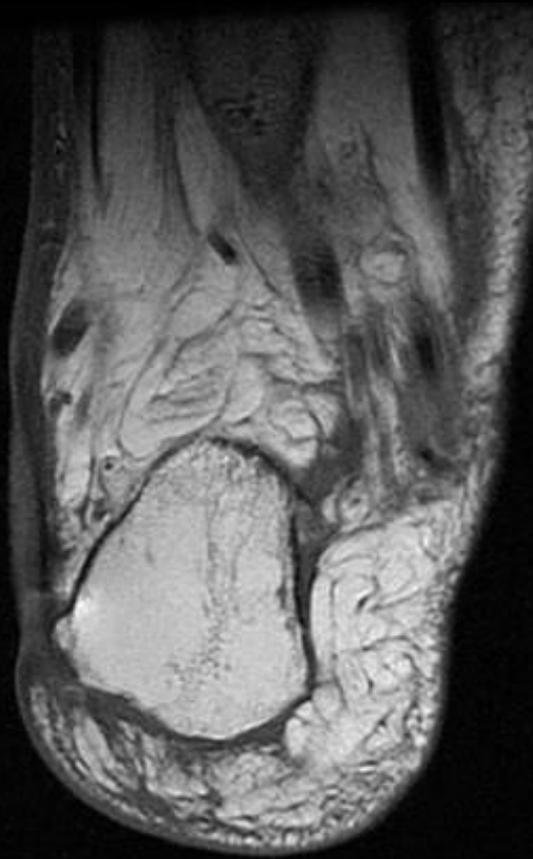
Donald Schultz

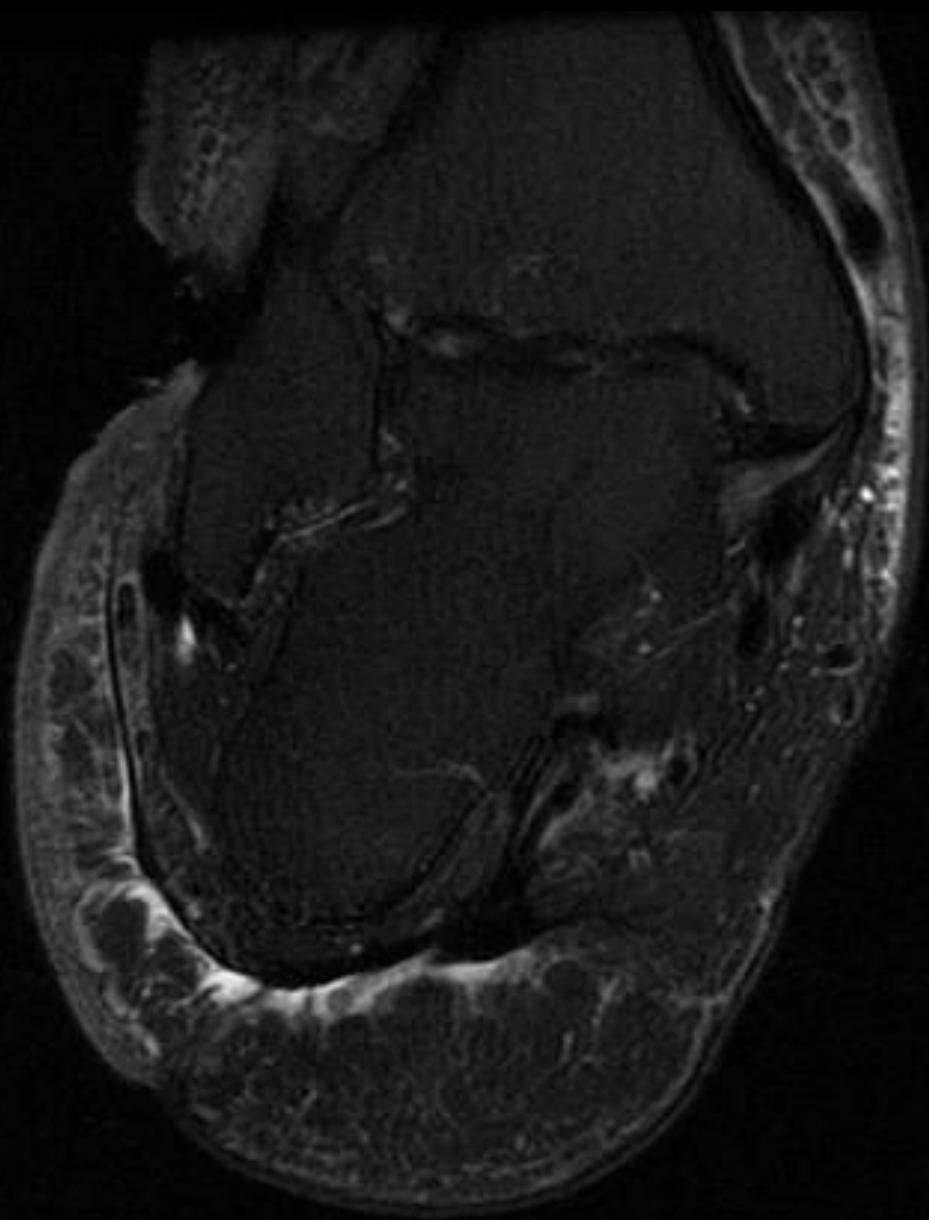
9/4/2015











Diagnosis:
Sequela of Myonecrosis
Involving the
Flexor Hallucis Longus Muscle

Etiology?

Sequela of Compartment Syndrome

Or

Diabetic Myonecrosis

Myonecrosis

- Diabetes (DM)
- Compartment Syndrome
- Crush Injury
- Sickle Cell Crisis
- Severe ischemia
- Intraarterial chemotherapy
- Rhabdomyolysis
- Necrotizing Fasciitis
- Can mimic an abscess
 - Clinical
 - MR

DM

- Distinctive
- Poorly controlled
- Severe pain compared to mild physical exam
- Low grade fever
- Negative cultures
- MR
 - Muscle edema and enhancement surround the infarcted muscle

Compartment Syndrome

- Confined compartment space with increased pressure
- Trauma, burns, exercise, extrinsic pressure, intramuscular hemorrhage
- Venous occlusion, muscle and nerve ischemia, arterial occlusion, tissue necrosis

Compartment Syndrome

- Severe pain
- Sensory and motor neuropathy
- MR
 - Extremity swelling
 - Diffuse edema
- Intracompartmental pressures
- Fasciotomy

Additional Considerations

- Myositis Ossificans
 - Clinical
 - Imaging
 - False positive biopsy
 - Osteosarcoma
 - » Osteoid
 - » Mitotic spindle cells
- Dermatomyositis
 - Autoimmune
 - Sheetlike calcification
 - Biopsy

Muscle atrophy

- Fat atrophy vs. fat infiltration vs. atrophy vs. fat replacement
- Etiology is complex and not well understood
 - Spectrum of fat and fibrosis replacement and infiltration
 - Muscle atrophy->fat replacement
 - Histology
 - Adipocytes
 - Intramuscular fat globules
 - Intramyocellular fat droplets
- Mechanical unloading and denervation

References

1. May, David A. MD, et al. Abnormal Signal Intensity in Skeletal Muscle at MR Imaging: Patterns, Pearls, and Pitfalls. *Radiographics* 2000; 20:S295-S315.
2. Kuzel, Bradley R, et al. Fatty Infiltration and Rotator Cuff Atrophy. *J Am Acad Orthopaedic Surgery*. 2013;21:613-623.