

## Magnetic Resonance Imaging of Unanticipated Causes of Ankle Pain: A Pictorial Essay

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### Purpose

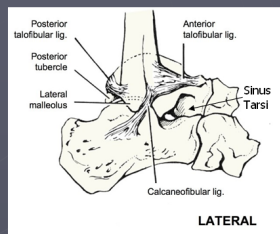
Ankle pain is a common presenting complaint in the ambulatory or emergent setting with the usual etiologies being trauma or sports related injuries. The mechanism is typically traumatic secondary to a twisting-type injury. There is a subset of patients presenting with ankle pain that are due to less common etiologies such as osteochondral lesions of the talar dome, plantar fasciitis and sinus tarsi ganglia to name a few. The purpose of the poster is to educate the viewer about the less common causes of ankle pain and to emphasize a working differential diagnosis for ankle pain.

### Outline of Content

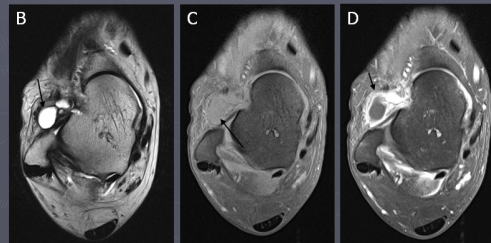
The presentation will begin with an introduction covering of relevant statistics of ankle pain (incidence, mechanism, healthcare related costs). The anatomy and physiology of the ankle will be reviewed with graphical depictions. Standard MR sequences and reasoning of the sequences will be reviewed. The presentation will be followed by MR images demonstrating the less common causes of ankle pain such as osteochondral lesions of the talar dome, posterior tibial and peroneus tendon tears, sinus tarsi ganglia, deltoid and Achilles ligament tears/tendinosis, tarsal coalition, plantar fasciitis and plantar fibromatosis. Each disease process will be followed by a brief review of the pathophysiology, clinical presentation/course, imaging findings and treatment.

### Sinus Tarsi Ganglia

- ▶ Benign soft tissue mass in the sinus tarsi usually involving the interosseus ligament (81%), the cervical ligament (31%) and the retinacula (46%)
- ▶ Highly associated with synovitis and tendinosis of the posterior tibial tendon
- ▶ Etiology possibly secondary to pathologic biomechanics of the hindfoot.



Sinus Tarsi Ganglia in a patient with right ankle pain and swelling. Sagittal Proton Density (PD) Fat-Sat (FS) (A), Axial T2 Turbo Spin Echo (TSE) (B), Axial T1 TSE FS Pre-contrast (C) and Axial Post-contrast images of the right ankle demonstrate a lobulated T2 hyperintense peripherally enhancing lesion (arrows) at the sinus tarsi.



### Summary

Familiarity with the differential diagnoses of ankle pain allows the radiologist and clinician to provide better patient care. A working knowledge of the clinical presentation and imaging features of less common causes of ankle pain will facilitate more prompt and accurate diagnosis and treatment.