MRI of the ankle and foot - Case based learning

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Traumatic and overuse injuries of the foot and ankle are common in all age groups, and can lead to significant morbidity and loss of function. Anatomy of the foot and ankle is complex and pain may be poorly localized, making diagnosis challenging. Plain radiographs can be helpful to look for fractures after acute injury, or to demonstrate soft tissue calcification, bone spurs, osteochondral pathology, or arthritis in more chronic disease. However, evaluation of soft tissue pathology on radiographic studies is limited. MRI has emerged as the imaging modality of choice for the diagnostic workup of both acute and chronic pathology of the ankle and foot. High field MRI scanners and improvements in surface coil design and MRI pulse sequences have lead to improved visualization of soft tissue pathology, as well as allowing direct visualization of bone marrow and articular cartilage.

A selection of MRI cases illustrating common pathology of the ankle and foot will be reviewed covering:

- Ligamentous injuries of the ankle and foot
- Ankle impingement syndromes
- Tendon pathology
- Plantar fascia pathology
- Accessory muscles around the ankle
- Osteochondral lesions
- Stress fractures