

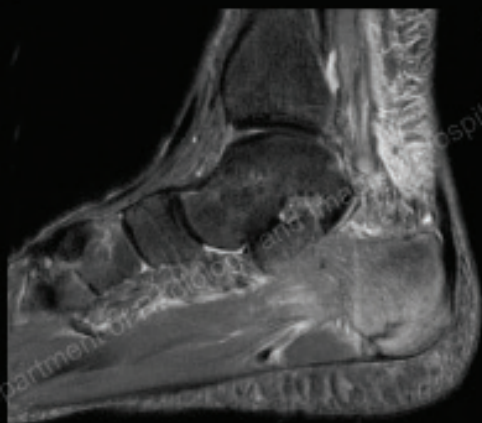


## History

32 year old woman runner with increasing right ankle pain.

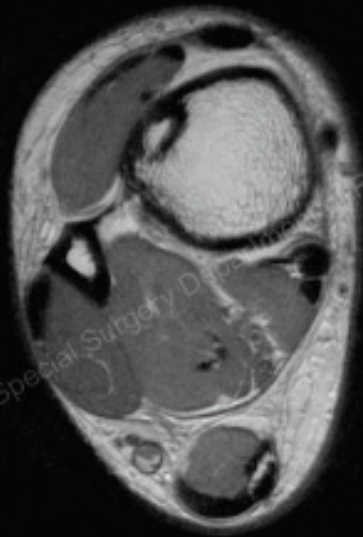


A B



C

A: Protom Density Sagittal  
B, C: Inversion Recovery Sagittal



Sagittal IR and axial proton density through distal tibia

# Findings

Radiographs demonstrate a subtle sclerosis of the calcaneal tuberosity. This corresponds to a low signal intensity band on the MR images with a prominent amount of surrounding high signal representing edema. Incidentally noted is a well demarcated sclerotic focus of the metaphysis of the distal tibia that demonstrates low signal on the IR sequence and a well demarcated low signal rim on the PD sequences.



Well demarcated focus of eccentric sclerosis of distal tibial metaphysis

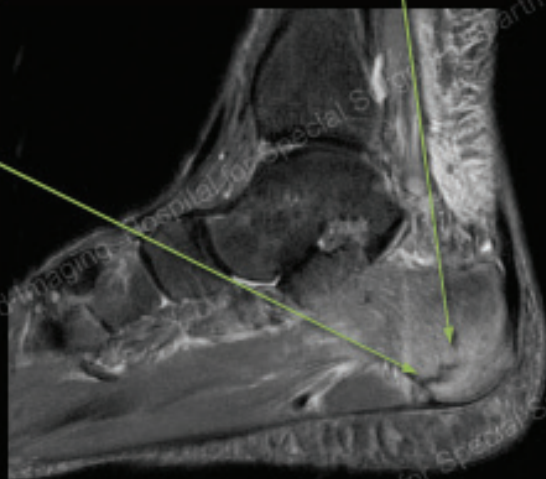


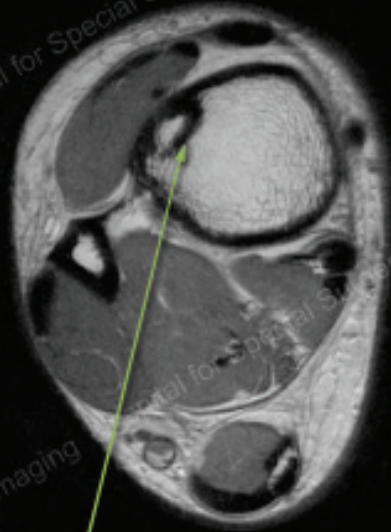
Sclerotic band of calcaneal tuberosity



Prominent edema pattern  
of calcaneal tuberosity

Low signal band  
corresponding to sclerotic  
band on radiographs





Well demarcated lesion distal tibia with surrounding low signal intensity.

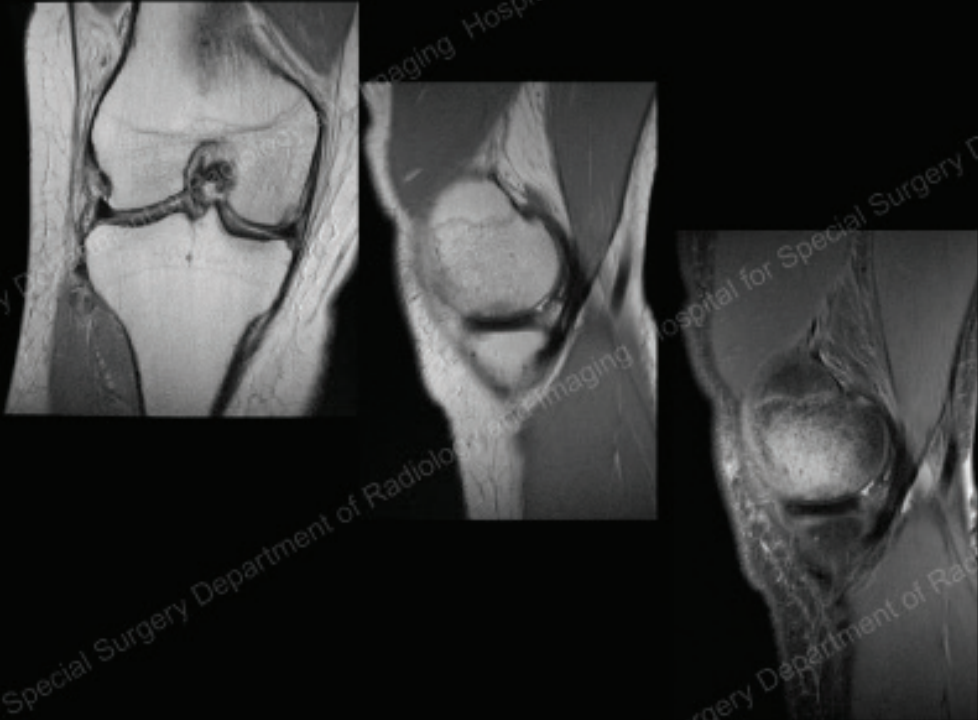
# Diagnosis

Stress fractures can either be insufficiency fractures or overuse fractures. Previously, a case had demonstrated an insufficiency fracture where abnormal bone had fractured in the setting of normal load. The overuse injury is increased load transmitted to normal bone relating in a stress fracture. One of the classic overuse injuries is of the calcaneus with other bones such as the tibia and distal femur often frequently involved.

The lesion of the distal tibia is an incidental non-ossifying fibroma. The lesion is sclerotic as it has healed. It demonstrates classic features of a metaphyseal, eccentric lesion that is well demarcated and not aggressive nature.



Same patient one year previously



Same patient one year previously.

Imaging of the knee demonstrates a stress fracture of the medial femoral condyle from the previous year related to overuse. The patient was an avid runner and had continued to run in spite of these multiple sites of stress fracture.

# Resources

[Sign up for our monthly eNewsletter](#) to find out when a new case will be posted.