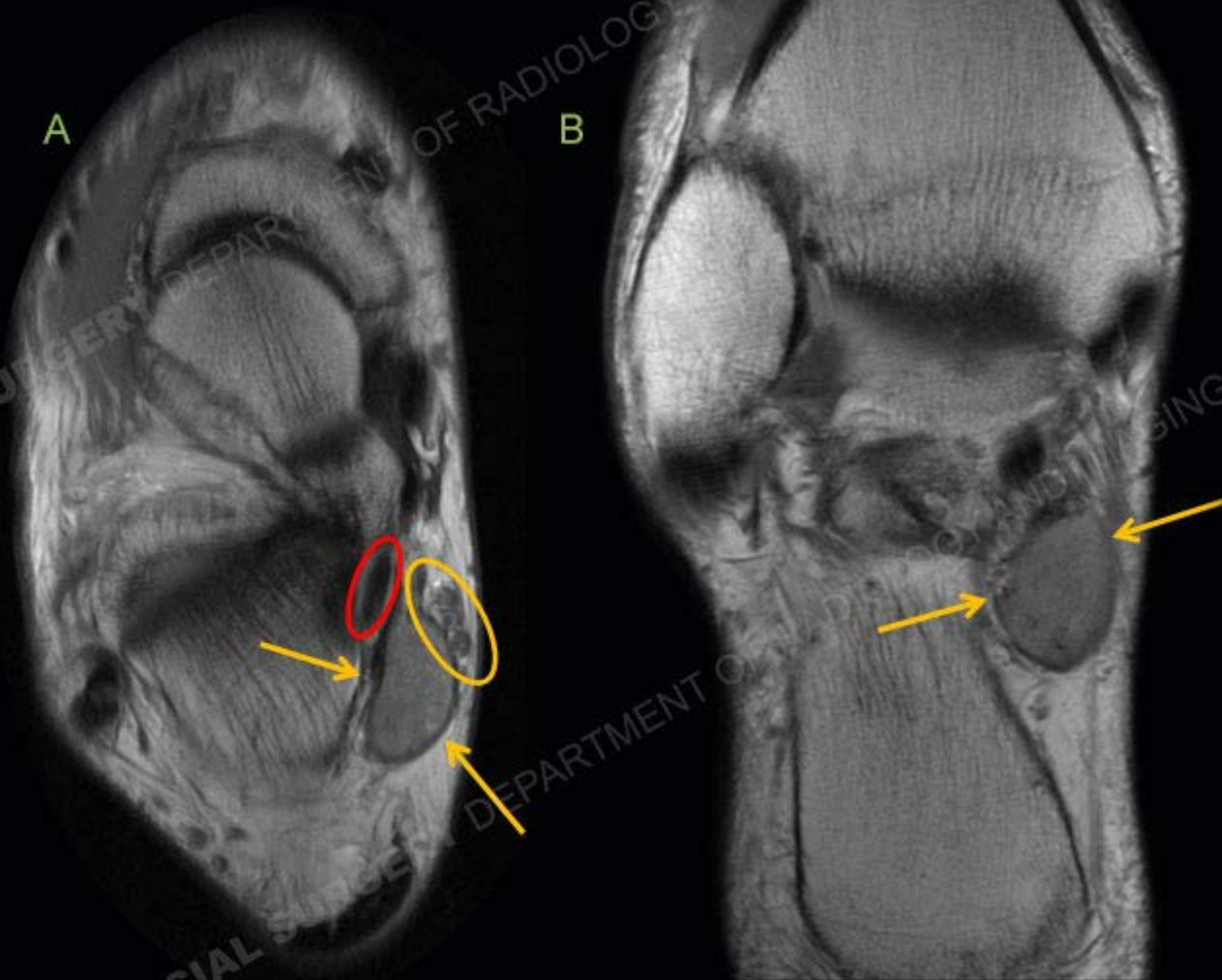


## Clinical History

41 year old male with ankle pain and fullness.

The patient had an MRI of the ankle that disclosed a medial soft tissue mass.





Axial (A) and coronal (B) MRI images demonstrate a soft tissue mass at the medial ankle (arrows). The mass abuts the neurovascular structures of the tarsal tunnel (yellow circle) and the Flexor Hallucis Longus tendon sheath (red circle).



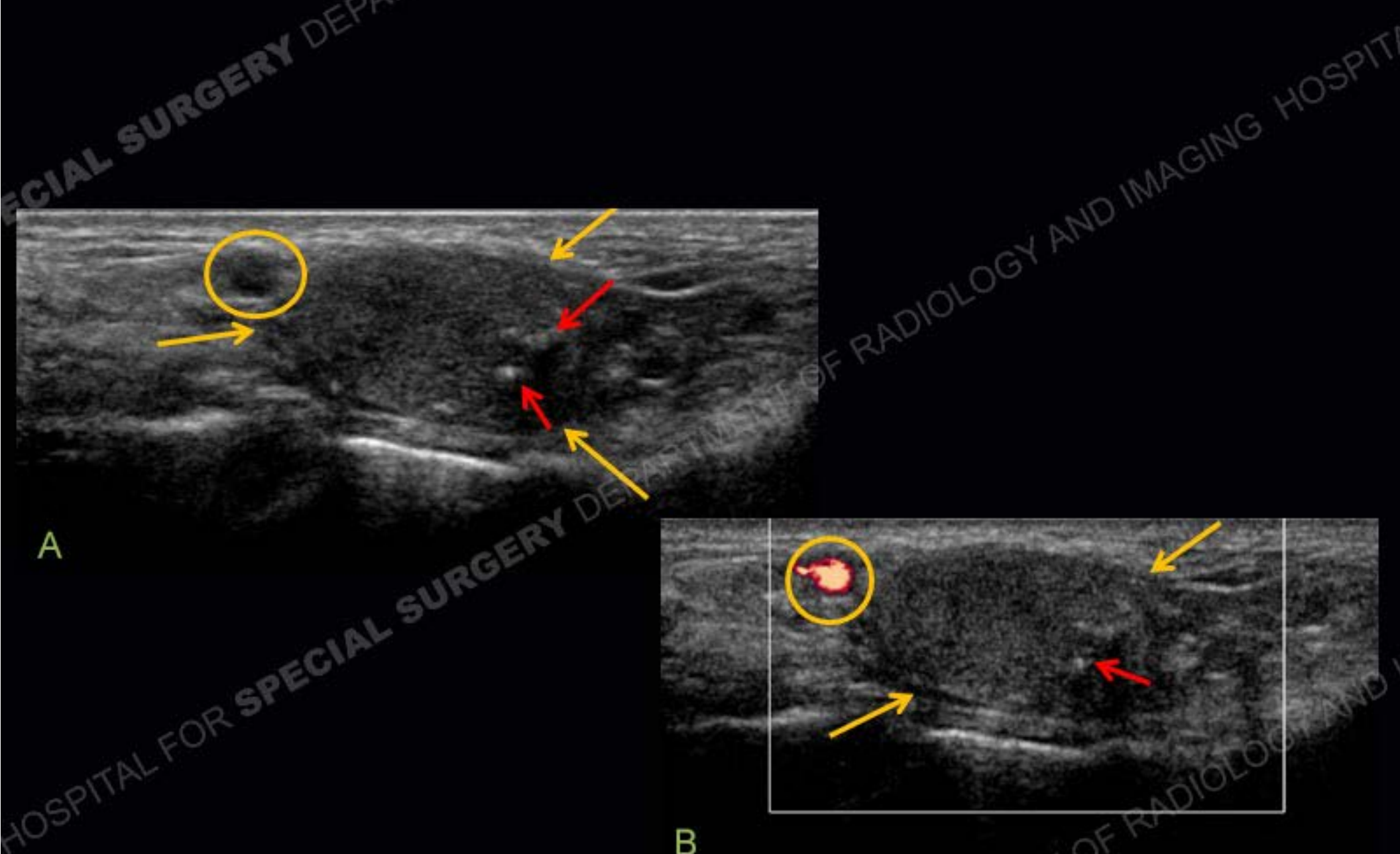
Proton density (A) and inversion recovery (B) sagittal MRI images again demonstrate the medial ankle soft tissue mass. Based on its location and MRI appearance, a differential diagnosis of PVNS, synovial chondromatosis, and less likely rheumatoid nodule was offered.

## Clinical History

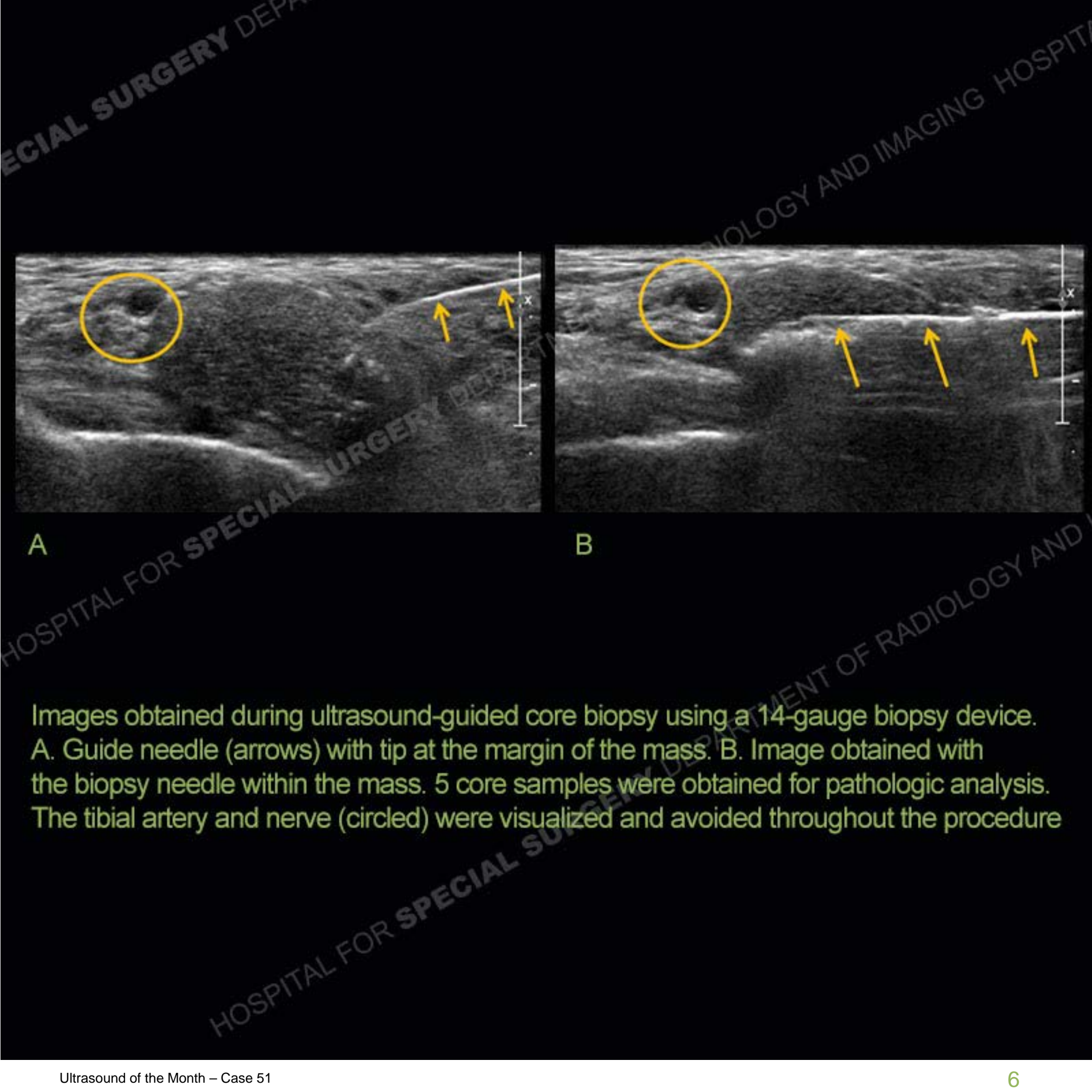
While a malignant neoplasm was considered very unlikely, biopsy was recommended to obtain a precise diagnosis.

While the lesion was easily palpable, an ultrasound-guided core biopsy was requested due to the proximity of neurovascular structures.





Sonographic imaging of the soft tissue mass (yellow arrows) demonstrates a relatively homogeneous soft tissue mass containing small foci of calcification or ossification (red arrows). The tibial artery (circled) demonstrates normal Power Doppler flow (B). An approach for the biopsy avoiding the neurovascular structures was selected.



A

B

Images obtained during ultrasound-guided core biopsy using a 14-gauge biopsy device. A. Guide needle (arrows) with tip at the margin of the mass. B. Image obtained with the biopsy needle within the mass. 5 core samples were obtained for pathologic analysis. The tibial artery and nerve (circled) were visualized and avoided throughout the procedure

## Diagnosis: Primary Synovial Chondromatosis

The core biopsy samples obtained demonstrated findings compatible with Primary Synovial Chondromatosis. This is a relatively rare condition with proliferation of islands of irregularly hypercellular cartilage seen microscopically.

Most commonly seen in the knee, this process may arise from joint synovium or less likely a tendon sheath. The condition is twice as common in men and in the primary form has no known precipitating factors.

