Clinical History

43 year old carpenter with a complaint of anterior knee soft tissue swelling and mild redness.

The area of concern is painful with knee flexion and extension.

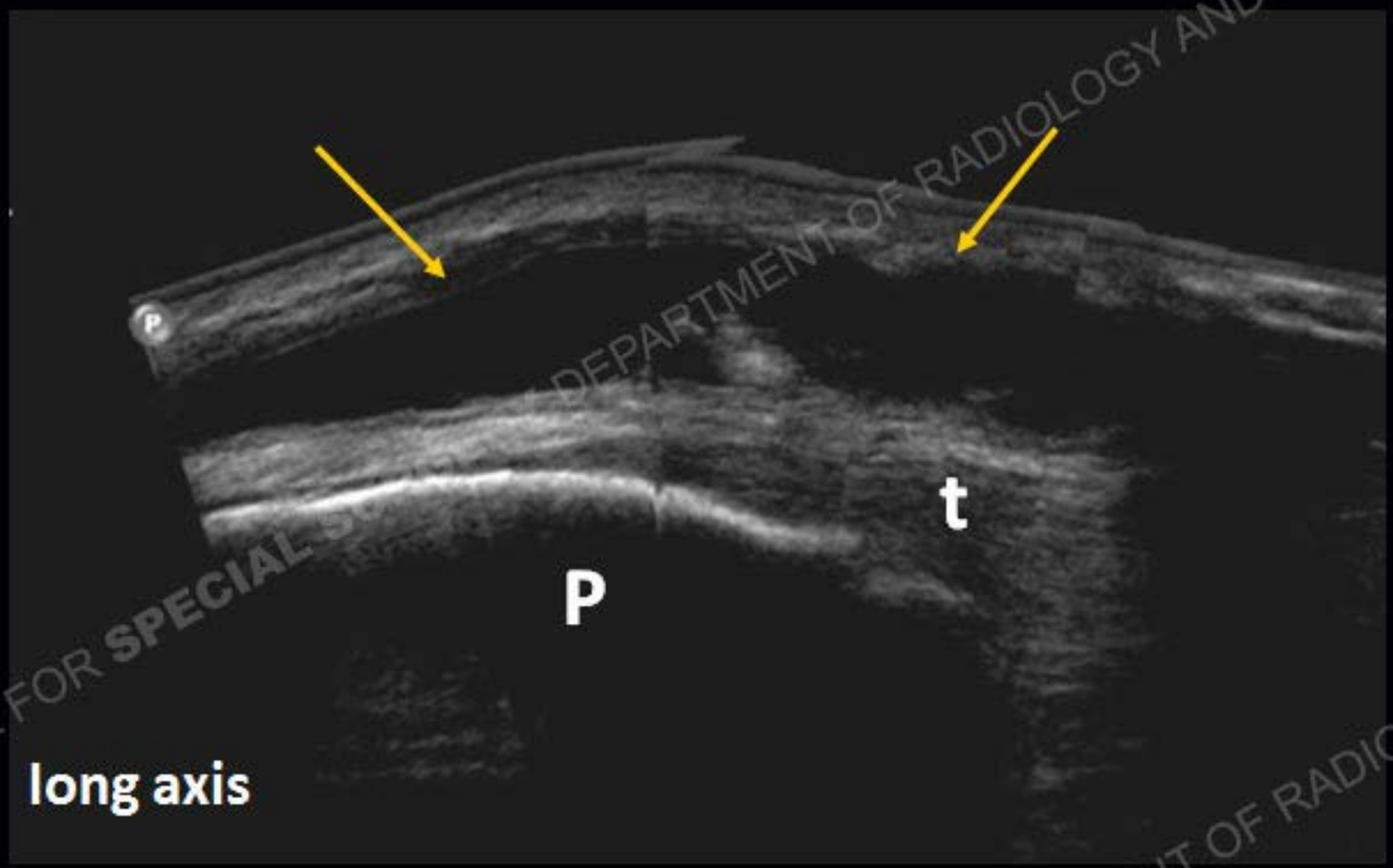
The patient recalled a small puncture wound in the region 2 weeks earlier.

Radiographs were obtained.

Lateral radiograph demonstrates anterior soft tissue swelling, correlating with the area of clinical concern (arrows)

HOSPITAL FOR SPECIAL SURGERY DEPARTMENT OF RADIOLOGY AND MEDICAL IMAGING

Following the physical exam and radiographs, an ultrasound was requested



Longitudinal ultrasound image over the area of soft tissue swelling demonstrates an anechoic fluid collection correlating with radiographic finding (arrows). P- patella, t- patellar tendon

HOSPITAL FOR SPECIAL SURGERY DEPARTMENT OF RADIOLOGY AND IMAGING

Due to the regional redness, infection was considered possible.

Ultrasound-guided aspiration was requested. With direct sonographic visualization, an 18 gauge needle (arrows) was advanced into the collection and 12 ml of fluid was obtained.
Cultures: no growth.

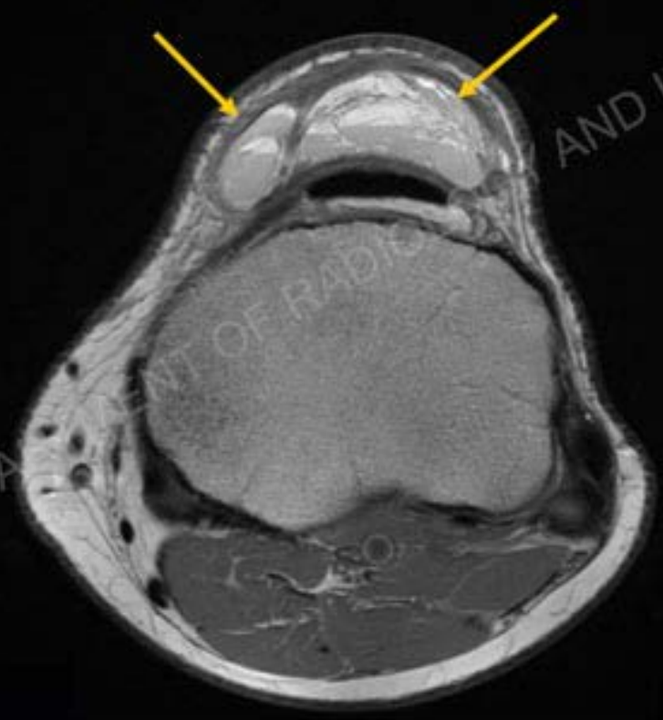
HOSPITAL FOR SPECIAL SURGERY DEPARTMENT OF RADIOLOGY AND IMAGING

Diagnosis: Pre-patellar bursitis (non-infected)

2nd patient with anterior swelling and pain

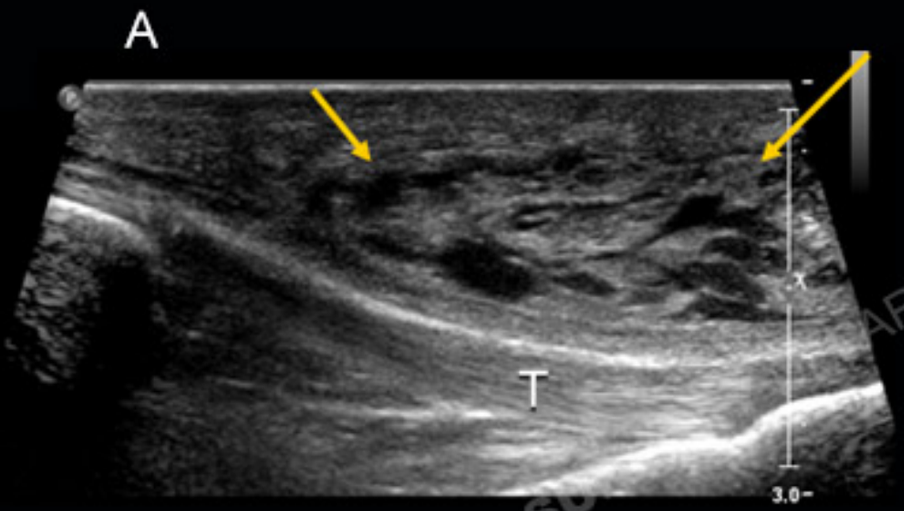
sagittal

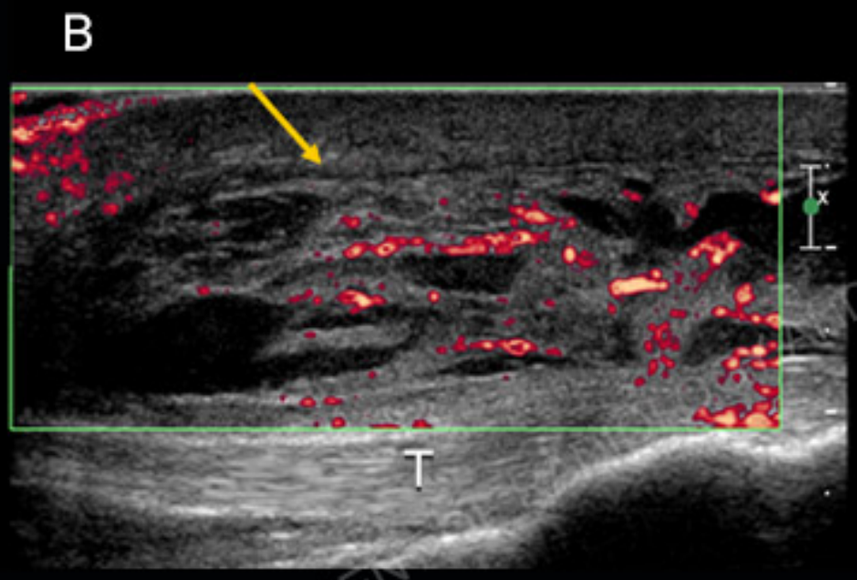
axial



MRI shows a complex fluid collection anterior to the patellar tendon consistent with superficial infrapatellar bursitis (arrows)

HOSPITAL FOR SPECIAL SURGERY DEPARTMENT OF RADIOLOGY AND IMAGING





A- Ultrasound imaging of this patient demonstrated a complex fluid collection (arrows) with extensive abnormal Power Doppler flow (B). T- patellar tendon

Ultrasound-guided aspiration yielded thick purulent material which grew Staph Aureus

HOSPITAL FOR SPECIAL SURGERY DEPARTMENT OF RADIOLOGY AND IMAGING

2nd Case Diagnosis

Diagnosis: Superficial infrapatellar bursitis (infected)

Diagnosis: Peri-patellar bursitis

Involves inflammation of the synovial-lined bursa between the skin and the patella or the patellar tendon. Common condition, often related to repetitive kneeling (carpenters, maids, gardeners, etc.) Also associated with gout, rheumatoid arthritis, diabetes, uremia, etc. With any clinical suspicion for infection, ultrasound-guided aspiration should be performed