

Clinical History

21 year old college athlete with sudden onset of infrapatellar knee pain while playing basketball.

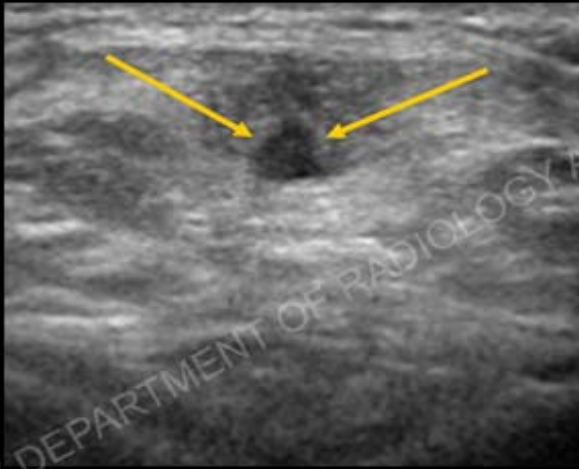




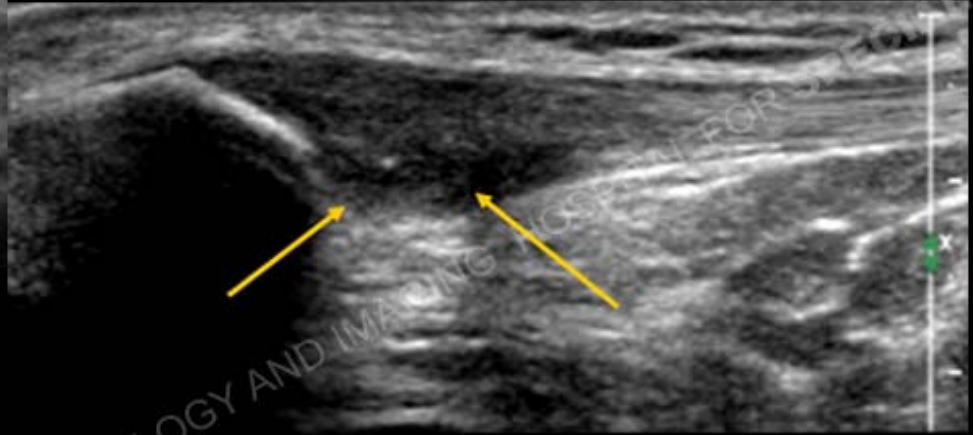
Sagittal IR (a) and sagittal proton density (b) MRI images demonstrating a partial thickness tear of the proximal patellar tendon



Axial MRI image demonstrating the partial thickness tear at the deep surface of the patellar tendon

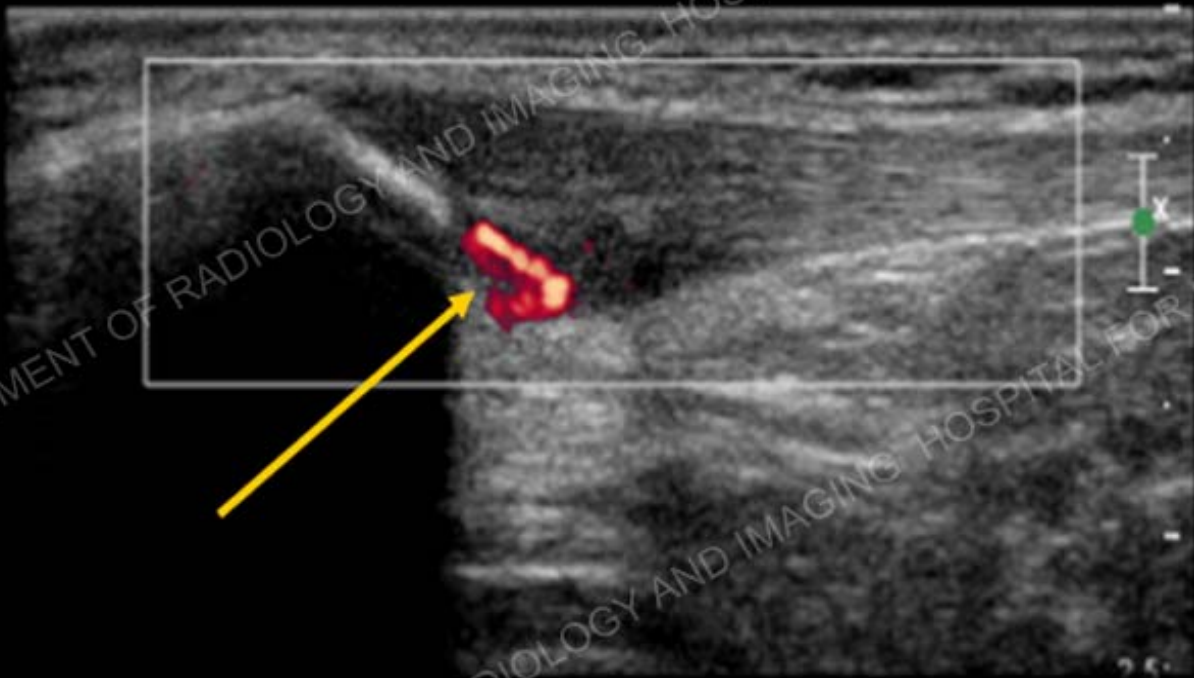


a



b

Ultrasound imaging in the transverse (a) and long axis (b) planes confirming a hypoechoic defect in the deep portion of the proximal patellar tendon, correlating with the MRI finding.



Power Doppler ultrasound image demonstrating hypervascularity (arrow) at the margin of the partial thickness tear

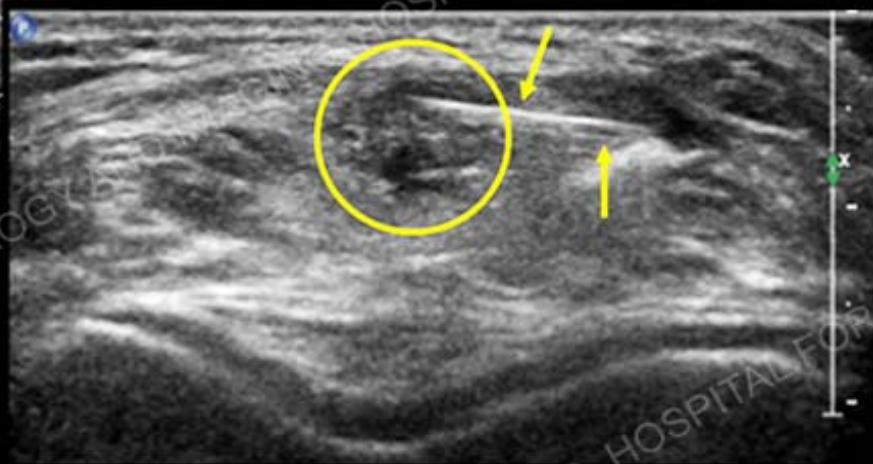
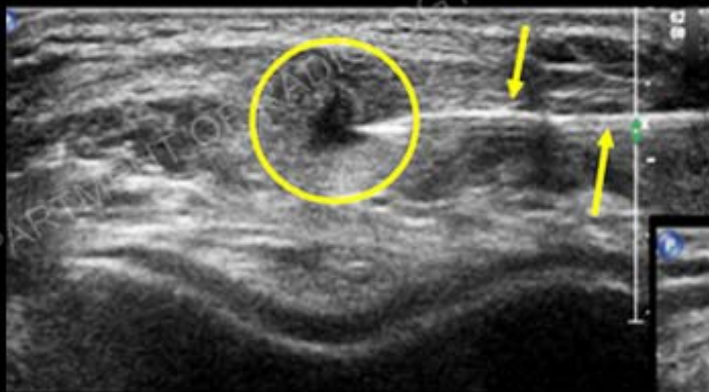
- Based on the clinical and sonographic findings, intratendinous platelet-rich plasma (PRP) injection of the proximal patellar tendon injury was requested.



PRP Procedure

- 20 ml blood draw obtained from patient
- Blood is processed in a centrifuge, yielding 3.5 ml of platelet-rich plasma
- With direct ultrasound guidance, the area of abnormal tendon is fenestrated with a 22-gauge needle
- The PRP is then injected into the abnormal portion of tendon through this needle





Ultrasound images demonstrating needle fenestration and PRP injection at the area of partial thickness tear and adjacent tendinosis

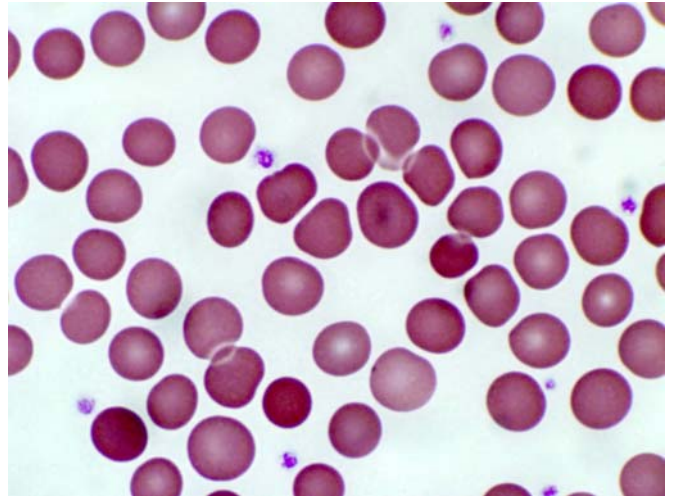
Pre-Procedure

8-Week F/U

Ultrasound images demonstrate marked improvement in the area of partial thickness tear at 8-week follow up. The patient experienced complete symptom relief and resumed full activity.

Potential PRP Benefits

- Stimulate new cell growth
- Attract “healing” cells
- Stimulate collagen production within tendons



PRP for Tendon Injuries

- While the procedure and its indications continue to evolve, PRP injection is a promising technique for accelerating the healing process in a variety of tendon injuries
- Further controlled studies will be necessary to better define its uses in a variety of tendon and other sports-related injuries, and are currently in progress at HSS and other institutions

