Case of the month November 2012

30-year-old otherwise healthy male with acute left knee pain and inability to extend the left knee after injuring it while playing basketball.

A frontal and lateral radiograph was done.

• What are the imaging findings?
• What is the diagnosis?
Imaging Findings

- Lateral view of the knee demonstrates superior displacement of the patella, also known as patella alta.
- Additional findings including hematoma within the infrapatellar tendon and a small suprapatellar effusion.
- The frontal view also demonstrates a superiorly displaced patella.
Diagnosis

- Patellar Tendon Rupture
Discussion

• **Patellar Tendon Rupture:**
  • Typical plain film findings include patella alta, indistinct patellar tendon outline, and joint effusion/hematoma.

• Normal patellar tendons don't rupture. Tendons weakened by degeneration or repetitive microtrauma can rupture.
Discussion

• Predisposing conditions include repetitive micro-trauma from athletic activity and underlying systemic diseases such as SLE and chronic renal failure.

• The mechanism of injury is knee flexion followed by a violently strong quadriceps contraction against the body's weight in an effort to prevent falling. A typical mechanism is abrupt deceleration while running, but this injury can also occur with much less energy in those predisposed with certain systemic diseases.

• The tendon is usually disrupted at its bony attachment sites, most commonly, its inferior patellar insertion site.
References


• Case submitted by Abdullah Alabousi