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Infectious Patellar Tenosynovitis: A Rare Case of Patellar Tendon Abscess and Traumatic Rupture

Introduction: Infectious tenosynovitis of the patellar tendon is a rare condition, with only two cases previously reported in literature. We present a case of a 63-year-old diabetic male who developed infectious patellar tenosynovitis complicated by an intratendinous abscess and subsequent traumatic rupture after a fall. The patient presented with progressive left knee pain, swelling, and an inability to extend the knee. His history was significant for a draining wound inferior to the patella treated with a short course of antibiotics two months prior.

Imaging: MRI from an outside facility revealed bony erosion of the tibial tuberosity and inflammatory changes of the patellar tendon but did not demonstrate a rupture. However, radiographs indicated patellar alta and signs suggestive of tendon rupture, with possible avulsion fracture or erosive changes at the tibial tuberosity for which infectious or neoplastic processes were not excluded. A non-contrast CT scan identified a central low-attenuation focus within the tendon and erosive changes at the tibial tuberosity. Definitive evaluation with contrast-enhanced MRI delineated a large intratendinous abscess extending into the subcutaneous fat, tibial tuberosity osteomyelitis, and clear discontinuity of the tendon, consistent with a tendon rupture.

Treatment: The patient underwent incision and drainage with intraoperative cultures yielding *Staphylococcus aureus*. Following a course of vancomycin, antibiotic therapy was narrowed to IV cefazolin for 6 weeks due to osteomyelitis and patellar tendon repair was successfully performed 3 weeks after debridement.

Conclusion: This case highlights the importance of considering infectious etiologies in tendon injuries, particularly in patients with risk factors such as diabetes and prior soft tissue infections. It also highlights the role of MRI with contrast in differentiating infectious, traumatic, and neoplastic processes, ensuring timely diagnosis and appropriate management.