

## Expect the Unexpected? (Pediatric Patella Tendon Rupture) Case Report

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### INTRODUCTION:

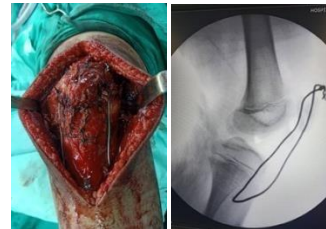
Pediatric knee is subject to distinct traumatic injuries, mostly related to the presence of open physes. Traumatic disruption of the patellar tendon requires a force 17.5 times body weight, causing bony avulsion fractures to be more common than tendinous rupture. Patellar tendon rupture without bony avulsion fracture is rare in children with few reports in literature.[1], [2]. We presented a case of pure patella tendon rupture in a child.

### REPORT:

7 years old, fell from staircase on 17/7/2023 (3-staircase height), direct hit on left knee and sustained pain and gross swelling. Plain radiograph shows high riding patella with no fracture seen. Ultrasound on 20/07/2023 showed possible left patellar tendon injury/rupture with suprapatellar effusion and surrounding soft tissue inflammatory changes. Patient underwent left patella tendon pull through suture repair with tension relieving wire (TRW) after discussion with tertiary hospital pediatric orthopedic team. Intraoperatively revealed avulsion fracture inferolateral patella with complete tear of patella tendon and lateral retinaculum. Patella tendon for HPE and blood investigations sent (renal profile, calcium, phosphate, rheumatoid factors, HbA1C). HPE shows no malignancy, with occasional foamy histiocytes, hemosiderin-laden macrophages, and few eosinophils. Other blood investigations were normal. Patient can extend their knee ( $10^{\circ}$ - $90^{\circ}$ ) after removing the tension-relieving wire. Physiotherapy referral given for improving knee ROM and quadriceps strengthening.



**Figure 1:** Presenting Radiograph



**Figure 2[1][2]:** Tension Relieving Wire (TRW) Left Knee



**Figure 3**

**Figure 3:** Post Removal of TensionRelieving Wire (TRW)

### CONCLUSION:

Patellar tendon rupture is rare in children, accounting for only 7% of acute injury knee extensor mechanism. Ruptures may occur midsubstance, proximal or distal insertions. Although rare, it necessitates early diagnosis and surgical intervention.

### REFERENCES:

1. Acute traumatic rupture patellar tendon in pediatric population; Mohamed Abdelhamid Ali Yousef, Scott Rosenfeld; Published:September 01, 2017
2. Muratli HH, Celebi L, Hapa O et al. Bilateral patellar tendon rupture in child: case report. *Knee Surg Sports Traumatol Arthrosc* 2005;13:677–82. 10.1007/s00167-005-0620-2
3. Patella Tendon Ruptures; MJ Matava; Department of Orthopaedic Surgery, Sports Medicine Section, Washington University, St Louis.