

## A Rare Case of Superior Pole Patella Sleeve Fracture

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### INTRODUCTION:

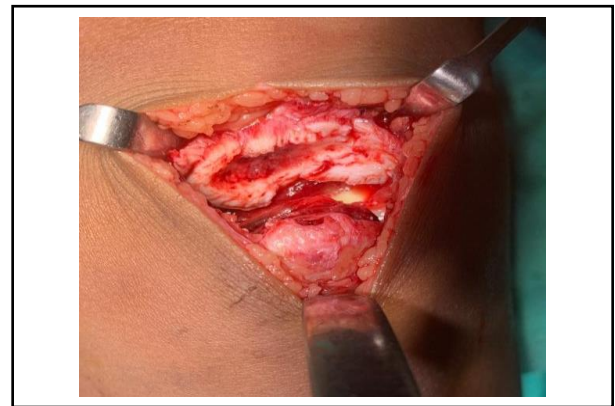
Patellar fractures are uncommon in children, making up only 1% of all pediatric fractures<sup>1</sup>. Of all patellar fractures, less than 2% occur in skeletally immature patients, and half of them are sleeve fractures<sup>2</sup>. The majority of documented cases have featured the inferior pole of the patella, while involvement of the superior pole is rare<sup>3</sup>. We present a case of this rare injury.

### REPORT:

The patient was an 8-year-old boy accidentally fell into a drain, with his knee directly impacting the solid concrete surface. Following the trauma, he experienced pain and swelling in the left knee, rendering him unable to ambulate. Upon examination, the knee exhibited significant swelling with effusion, with extension lag of approximately 30 degrees. The diagnosis of sleeve fracture was established through the radiographic image, revealing a bony fragment located proximal to the patella (Fig. 1). The patient then underwent surgical intervention. Intra-operatively, noted one-fourth of the patellar articular cartilage and the anterior periosteum were avulsed from the proximal patella (Fig. 2). Anatomical reduction was performed, and the articular cartilage segment was secured using a tension band wire construct, plus meticulous repair of the torn retinaculum. Six weeks post-operation, the wound had healed, and the patient was able to flex his knee up to 90 degrees without knee pain.



**Figure 1**



**Figure 2:** Displaced cartilage sleeve from superior pole patella

### CONCLUSION:

A high suspicion is crucial in treating pediatric knee pain, as the injury may be overlooked. The small fragment may be missed on plain radiographs. Open reduction with tension band wiring is indicated in case of displaced fracture.

### REFERENCES:

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