

## Anterior Knee Pain? A Case Series of Short Term Follow Up of Tibial Nailing via Suprapatellar Approach

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### INTRODUCTION:

Intramedullary nail remains the gold standard for fixation of tibia diaphyseal fractures. However, the recent advancement in suprapatellar nailing has shown significant improvement in terms of ease of surgery and good functional outcome for patients.

### REPORT:

We report a case series of 3 patients, with proximal, midshaft and distal third tibia fractures respectively whom underwent open reduction and intramedullary nailing of tibia via the suprapatellar approach with knee in the semi-extended position (Fig. 1). These patients underwent open reduction as the timeline to surgery ranged between 4 weeks to 6 weeks respectively. Entry point was obtained with a specialized suprapatellar protection sleeve (Fig. 1). Fractures were reduced and intramedullary nailing done. The apparent advantage that was seen during surgery was the ease of patient positioning and reduced intraoperative fluoroscopy. Post-operative x-rays were routinely performed (Fig 2). All patients are currently undergoing the standard physiotherapy and rehabilitation protocol. Patients functional status were evaluated with Oxford Knee Score 1998 (OKS) and general pain scoring via Visual Analogue Scale (VAS). Our patients report an average OKS Score of 13 – 15 with no anterior knee pain.

### CONCLUSION:

Suprapatellar approach provides superior fixation method which reduced fluoroscopy time and cut down the need for reposition of leg during reduction<sup>1,2</sup>. No short-term complications to the patellofemoral joint in terms of anterior knee pain and functional outcome. A longer duration of follow up and bigger sample size should follow



Figure 1: Suprapatellar Entry Point.

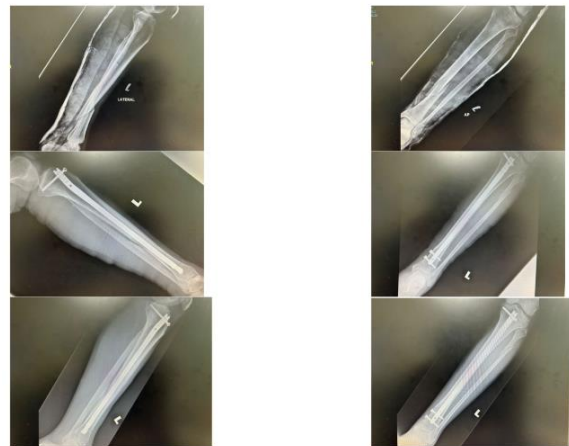


Figure 2: Serial follow up x - rays showing excellent alignment and fracture callus formation.

### REFERENCES:

1. Ponugoti, N. *et al.* Infrapatellar versus suprapatellar approach for intramedullary nailing of the tibia: a systematic review and meta-analysis. *J Orthop Surg Res* **16**, 94 (2021).
2. Al-Azzawi M, et al. Suprapatellar versus infrapatellar nailing for tibial shaft fractures: A comparison of surgical and clinical outcomes between two approaches. *J Clin Orthop Trauma*. 2021 Jan 29;17:1-4.