

SUPRAPATELLAR ENTRY FOR INTRAMEDULLARY NAILING OF TIBIAL SHAFT FRACTURE- CASE SERIES

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Introduction: Intramedullary nailing is the gold standard for tibial shaft fractures. Patella tendon sharing and transtendon approaches are the methods commonly used. Semi-extended suprapatellar entry portal was introduced to with benefits of ease of positioning, maintaining reduction during nail insertion, more anatomical starting point, and reduced malreduction rate.

Methodology: Patients with tibial shaft fractures were selected for suprapatellar approach for intramedullary nailing. After induction of anaesthesia, patients were positioned in supine. The whole lower limb was draped free. A sterile bolster was placed over the popliteal fossa to keep the knee in 20-30 degrees of flexion. Longitudinal incision was made about 1cm above the patellar and quadriceps tendon was split sharply following the skin incision. Guide wire was inserted to obtain the nail entry point. Tissue protector sleeve was inserted to protect the patellofemoral joint and ligaments. Reaming was done up to 1.5mm larger than the chosen nail size. Standard intramedullary nailing of the tibia was done. Wound was irrigated and sutured. Patient underwent physiotherapy and followed up with regular intervals.

Discussion: Five patients with tibial shaft fractures underwent tibial intramedullary nailing via suprapatellar entry portal. Mean age of the patients was 28 years old (range 16-66 years). Average operating time was 82.4 minutes (range 40-131 minutes). Average union time was 17.6 weeks (range 12-24weeks). There was no complications such as infection, implant irritation or non-union.

Conclusion: Suprapatellar entry point for intramedullary nailing of tibia is a useful technique. The learning curve is not steep and can be helpful for surgeons treating this condition. A larger series are needed to evaluate this technique in our country.