

## REVERSE OBLIQUITY FRACTURE OF THE PROXIMAL PART OF THE FEMUR (AO/OTA 31-A3) TREATED WITH INTRAMEDULLARY NAIL

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Intertrochanteric fractures of the femur with reverse fracture line are unstable fractures of unique anatomical and biomechanical characteristics, which are surgically treated with extramedullary or intramedullary fixation methods.

The purpose of this study was to evaluate intertrochanteric femoral fractures with intramedullary nail treatment in regard to surgical procedure, complications, and clinical outcomes.

We retrospectively analyzed outcomes of thirty-two elderly patients with AO/OTA 31-A3 intertrochanteric fractures of the femur treated by proximal cephalomedullary nails available at our institution, Clinic of Orthopaedic and Traumatology Niš, Serbia, during the period from 2012 to 2020 years. Postoperative follow-up ranged from 12-22 (12.36) months.

Surgical procedures were performed on average 4.45 days after the injury. The average duration of the surgical intervention was 64 minutes. Closed reduction of fracture and internal fixation were achieved in 26 cases. Acceptable anatomical reposition was achieved in 17 cases (53.12%), and anatomical reposition in 15 cases (46.88%). The mean value of the Harris hip score was 74.66 (65-96), and the mean value of Barthel's activity score was 15.71 (12-20). Fracture healing after intramedullary fixation was achieved in 29 cases, while in 2 cases complications in the form of failure of internal fracture fixation and non-union of fractures (6.25%) were noted.

Intramedullary fixation of reverse transtrochanteric fractures (AO/OTA 31-A3) with short or long cephalo medullary nails provides adequate biomechanical conditions for fracture healing in the optimal time period with the possibility of performing a minimally invasive surgical procedure.

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