

"The Joint Above": The Impact of a Previous Proximal Implant in a Distal Femur Fracture

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Purpose: With an aging population and increasing arthroplasty rates, distal femur fractures in patients with proximal implants represent a growing challenge. This study aims to evaluate outcomes and explore the relationship between distal femur fractures occurring in patients and their preexisting ipsilateral proximal implants.

Methods: This was a retrospective study involving 53 patients with distal femur fractures and ipsilateral proximal implants treated between 2013 and 2023. Patient demographics, surgical approaches, and outcomes were analyzed with an additional radiographic assessment of previous ipsilateral implant types subsequently placed into four groups: total hip replacement (THR), dynamic hip screw (DHS), intramedullary (IM) nail, and others. The primary outcomes of our study included postoperative complications, mortality, and length of hospital stay (LOS).

Results: Of the 53 patients included, the average age was 79 years (range 34–96 years) and 79.2% were female. Single lateral plate fixation was the most commonly used method of fixation in 69.8% of cases, followed by IM nailing in 22.6%. The overall complication rate in our patient group was 7.5%, with an average LOS of 21.3 days. We noted that, at 30 days postoperatively, there was a 3.8% return-to-theatre rate and a 5.7% mortality rate. Despite this, the presence of a previous ipsilateral implant did not significantly affect complication rates ($p = 0.423$) or survival (log rank, $p = 0.362$).

Conclusion: Despite the technical challenges that the presence of a previous implant can pose, distal femur fractures in patients with proximal implants can be managed effectively with standard fixation techniques. Neither implant type nor fixation method significantly impacted complications or mortality, suggesting that individual patient factors should guide treatment decisions.