

## A COMPLEX SUBTROCHANTERIC FEMUR FRACTURE- BACK TO DRAWING BOARD

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**Introduction:** Proximal femur largely consist of cancellous bone and elderly patients are at a higher risk for fracture due to brittle bone and weak tensile strength. A special type of proximal femur fracture is subtrochanteric fracture presenting in for about 10-30% of all hip fractures. Usually fracture in this region is due to high energy or severe trauma in young and commonly low energy in elderly, often requires internal fixation to reduce risks of malunion and coxa varus deformity of the femur shaft angle.

**Discussion:** We report a case of a 71 years old active lady complaining of right hip pain following a fall in sitting position. Intraoperatively we attempted a open reduction for PFN insertion with cerclage wires. The preoperative x-rays of this patient did not reveal all the fracture configuration that needed to assist us intraoperatively. Three-dimensional CT could improve the reproducibility of stability evaluation for femoral subtrochanteric fractures. Intramedullary fixation can conduct stress uniformly compared to extramedullary fixation by reducing the stress on the implant. This explains the choice of implant used in this patient, which is a cephalomedullary nail. Other options such have fixed-angle femoral plates preferred in certain conditions but not in this case due to medial comminution. The physicians should evaluate the postoperative radiographic results and decide the timing of weight-bearing exercises.

**Conclusion:** This case report highlights the importance of proper preoperative preparation in a subtrochanteric fracture and the tips in managing the intraoperative difficulties faced. Preoperative CT Scan would increase the reroducibility of the fracture to assist surgeons intraoperativel. A cephalomedullary nail would be a treatment of choice in this fracture due to medial comminution and using the double cerclage wires to approximate the comminuted pieces together would enhance the biomechanical strength of the fixation.