

## CHALLENGES IN SUBTROCHANTERIC FEMUR FRACTURE MANAGEMENT: A CASE REPORT OF INAPPROPRIATE IMPLANT CHOICE LEADING TO FIXATION FAILURE AND UPDATE ON MANAGEMENT OPTIONS

Ling Lee Siang<sup>1</sup>, Seo Soon Teck<sup>1</sup>, Sivapathasunduram C. Nadarajah<sup>1</sup>

<sup>1</sup>Hospital Melaka

**Introduction:** Subtrochanteric fractures of the femur remains one of the most challenging fractures encountered by orthopaedic surgeons. They account for 10 to 15% of all hip fractures. Subtrochanteric region of the femur is defined as the proximal femoral shaft located within 5 cm of the lesser trochanter. It is common in older patients after low energy trauma along with osteoporosis and in younger patients with high energy trauma. The management of subtrochanteric fractures is challenging because of the inherent instability of the fracture pattern.

**Discussion:** An 85 years old lady presented with alleged fall and sustained closed left subtrochanteric femur fracture. She was initially planned for dynamic hip screw fixation however choice of implant was changed to interlocking femoral nail during preoperative census meeting. Intraoperatively noted bone loss with short oblique fracture extending to the lesser trochanter and reduction done was satisfactory. However, postoperatively noted distal femur was externally rotated and proximal femoral fragment displaced in valgus direction. There was a fixation failure. On day 5 postoperatively noted there was femoral nail backout. Patient counselled for revision operation in which patient's family declined and opted for conservative management. Patient was seen again in clinic 1 week after discharge and patient was bedridden since discharged. Patient is currently still under follow up to monitor her condition and wellbeing.

**Conclusion:** Subtrochanteric fractures of the femur can result in significant complications and poor clinical outcomes such as failure of fixation, shortening, malrotation and non-union if not managed properly and inappropriate choice of implant was used. Intramedullary devices are better compared to extramedullary devices in treating this type of fracture. Cephalomedullary nail is a good choice of implant for subtrochanteric fracture of the femur. The advantages include minimal exposure (closed technique), better stability and early mobilisation.