

## PERI-PROSTHETIC FEMUR FRACTURE POST HIP ARTHROPLASTY, A CHALLENGE IN TREATMENT: CASE REPORT

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**Introduction:** The burden of peri-prosthetic fracture is increasing with increased in volumes of hip arthroplasty. These injuries often occurs in older patient with significant co-morbidity and osteopenia. There is no consensus on ideal management approach. Vancouver classification system commonly used to guide management decision.

**Discussion:** Here, we report a case of peri-prosthetic left femur fracture post hip arthroplasty in a 79 years old lady with underlying diabetes mellitus, hypertension and goiter. Patient complain of left hip pain and inability to weight bear on left lower limb post fall. Left femur x-ray showed peri-prosthetic femur fracture, Vancouver type B1. She was treated with cable plating with cortical strut allograft over left femur. Patient presented at 3 weeks post operation with surgical site infection. Wound debridement over left femur was done. Tissue culture taken positive for *Pseudomonas aeruginosa* infection. She was then treated with antibiotics for 6 weeks. At 3 months post operation, wound healed and callus seen in x-ray left femur. At 11 months post operation, repeated left femur x-ray shows united fracture. Patient was able to walk without aid.

**Conclusion:** Peri-prosthetic femur fracture is a serious complication of hip arthroplasty . Primary goal of treatment is stable reduction with solid fixation, allowing early mobilization and weight bearing. Vancouver classification helps in deciding management. When femoral component is stable, open reduction and internal fixation is recommended . Studies has shown that adding cortical strut graft results in higher bone union rate as it has both mechanical and biological function. Common complications following surgical treatment includes infection and non-union. In conclusion, treatment of peri-prosthetic femur fracture, Vancouver type B1, with cable plate and strut graft may offer good result with high union rate.