

FEMORAL STEM FRACTURE IN POST TOTAL HIP REPLACEMENT

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Introduction: Femoral stem fracture in arthroplasty is rare in view of advance metal type and better cementing technique. However, stem fracture does occur due to other factors such as obesity, high activity in young individuals, valgus stem, and placement of undersized stem in the femur. The author would like to share a case of broken femoral stem, 6 years after post-total hip replacement following a femoral neck fracture.

Discussion: This is a case of a 79 years old whom had a fall and sustained left femoral neck fracture, subsequently total hip replacement was done. Six years later, upon getting up from a chair, she heard a 'pop' sound. The x rays showed a femoral stem fracture with a proximal cement mantle deficiency. Patient underwent revision hip arthroplasty by changing the femoral stem and polyethylene liner with a strut graft at the corticotomy site. A corticotomy measuring 2 x1 cm was done at the femoral bone, distal stem site using a burr. Pilot hole was done at the stem using a carbide drill. We then used a steinman pin and provided axial force to lever the remaining stem out. In this case, there is proximal cement mantle deficiency with good distal cement fixation. The femoral stem fractured due to cantilever mechanism and there were no signs of infection intra-operative. A trephine can be used for a distal stem fracture involving the narrow part of the stem. In cases where it involves the wider part of the stem, a corticotomy or an extended trochanteric osteotomy are options to be considered for remaining stem extraction. The site of corticotomy should be in line with the location of extended trochanteric osteotomy.

Conclusion: Performing femoral corticotomy is less invasive option to remove remaining wider part of broken femoral stem compared to extended trochanteric osteotomy.