IPSILATERAL IATROGENIC LONG SPIRAL FRACTURE FEMUR DURING TOTAL HIP REPLACEMENT

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INTRODUCTION:

Total hip arthroplasty is a successful treatment for patient with hip osteoarthritis. Complication of intraoperative fracture still occur even with proper operative technique.

REPORT:

64 years old male was initially alleged in motor vehicle accident on 20 September 2011, sustained closed fracture left acetabulum. Open reduction and recons plate left acetabulum done 6 October 2011. During subsequent follow up, fracture united and patient ambulating well without support. Patient experienced left hip pain since 2017 in which aggravated on walking and changing position associated with limited movement of left hip. Left hip examination for range of motion shows flexion 5-90^{o} (fixed flexion deformity 5^{o}), abduction 0-10^{o}, adduction 0-10^{o}, internal rotation 0^{o}, external rotation 0-10^{o}.

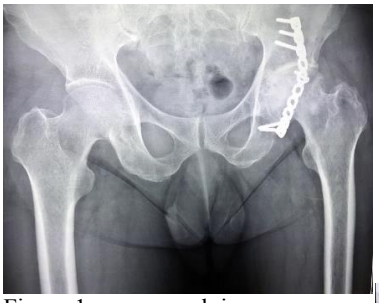

Figure 1 : pre-op pelvic x-ray

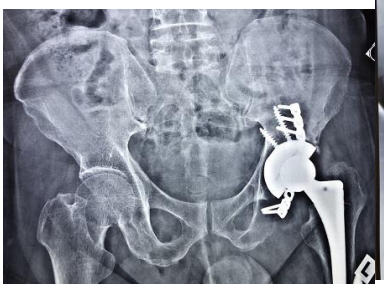

Figure 2 : post-op pelvic x-ray

Figure 3 : post-op left femur x-ray

Operation was done on 1 October 2018. Intraoperative findings were fibrous ankyloses of left hip with very stiff femoral head (unable to internal and external rotate). 'POP' sound heard during attempt to dislocate left femoral head. Left femur was checked under image intensifier (I/I), noted long spiral fracture mid shaft left femur. Bone quality good. Femur fracture was fixed using locking plate and proceed with left total hip replacement. Fixation was stable. Post-operatively, patient was advice for non-weight bearing over affected limb. Risk of fracture in this case was due to significant stiffness of hip joint and 2 person manipulate during attempt to dislocate the femoral head. Treatment guided by the Vancouver classification C which is fractures well distal to femoral stem treated with ORIF using standard osteosynthesis techniques, avoid creating stress riser, and overlap plate and femoral stem.

CONCLUSION:

Iatrogenic ipsilateral mid shaft femur fracture during total hip replacement was rare but incidence increase in case of osteoporotic bone and end stage renal failure patient. Manipulation to dislocate the joint during surgical procedure should be done cautious and ideally by single person to avoid excessive rotational fore to femur that can lead to iatrogenic spiral femur fracture

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