

Pipkin III Femoral Head Fracture In Young Patient With Primary Total Hip Arthroplasty

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INTRODUCTION:

Femoral head fractures are rare traumatic injuries that are usually associated with hip dislocations. Risks of osteonecrosis is high and patient often need multiple surgery if fixation is done. Thus, this is a case report of a young patient with Pipkin III fracture treated with one stage total hip replacement.

REPORT:

Mr AR, 20yo Malay gentleman with no medical illness alleged motor vehicle accident sustained Pipkin type III fracture. Open reduction internal fixation been given as an option to patient in view patient is young but knowing the high incidence of avascular necrosis and another operation might need to be done later, patient opted for total hip arthroplasty.

Pipkin fractures are caused by high-energy trauma, affect younger people and frequently occur in the context of polytrauma. In this respect, native hip joint preservation and restoration of the hip biomechanics through an open reduction and internal fixation has traditionally been the goal of their management.¹ Although it is importance to preserve the hip joint in young age, there is still no universally accepted recommendation for such challenging fractures due to rarity, lack of adequate literature and a systemic review done by Giannoudis team concluded that poor outcome was documented in 50% of Type-III Pipkin fractures compared to 12%, 15%, 27% for type I, II and IV respectively.² Scolaro et al. identified 13 Type-III fractures and all of them were initially managed with open reduction and internal fixation but this management failed in all of the cases and a conversion to a THR was necessary. Based on the above, they suggested that strong consideration should be given to arthroplasty in cases of displaced femoral neck and head fractures.³

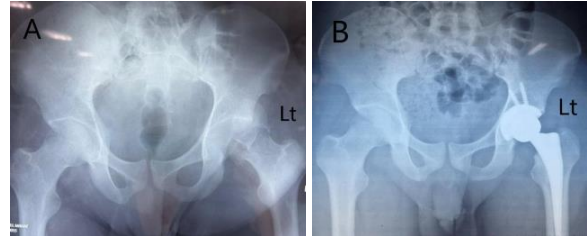


FIGURE A:
Pre operative Xray

FIGURE B:
Post operative Xray

Figure A showed left head of femur fracture with subcapital neck of femur fracture. Figure B showed left uncemented total hip arthroplasty with restoration of the proximal hip biomechanics.

CONCLUSION:

Primary total hip arthroplasty should be considered in management of Pipkin-III fractures due to high risk of avascular necrosis and increased complication rate of salvaging total hip arthroplasty following internal fixation.⁴

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