

Oops, it's not just a dislocation! A case report of femoral component dissociation of bipolar hemiarthroplasty

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INTRODUCTION

Hip dislocation after bipolar hemiarthroplasty are common complication, comprises 1-7%¹. Dissociation of the femoral component after bipolar hemiarthroplasty although rare, may cause serious complication. A dislocation after hip bipolar hemiarthroplasty can be successfully reduced via close methods. However dissociation almost always requires reoperation/ revision/ conversion to total hip arthroplasty.²

REPORT:

A 75 year old male, alleged fall, complaint of right hip pain and deformity 2 weeks after right hip bipolar hemiarthroplasty. Close manipulative reduction (CMR) was attempted under sedation, however post procedure showed dissociation of the femoral component. The polyethylene cup was outside the acetabulum, while the smaller femoral head was inside. An open reduction was performed revealed a dissociated polyethylene cup and femoral head. There was indentation seen on the polyethylene cup, with no loosening of femoral stem. The prosthesis was revised, changing both the polyethylene cup and the femoral head, while preserving the same femoral stem. Postoperative 6 months follow-up, patient was well and ambulating well without aid.

In this case, dissociation occurs after CMR explained by 'bottle-opener' mechanism where outer cup locks along the acetabulum rim while traction is applied. A 'push-turnover-pull' manipulation under fluoroscopic guidance and general anaesthesia as a preferred method of reduction.³



Figure 1

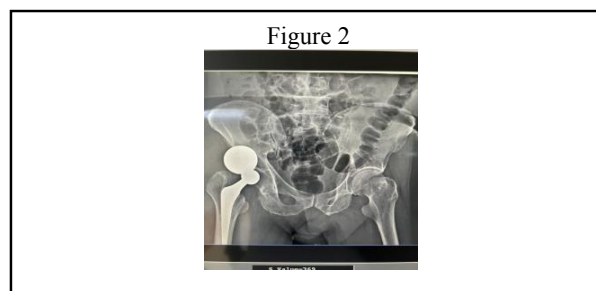


Figure 2

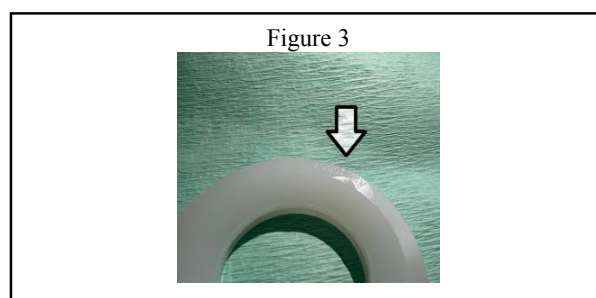


Figure 3

Figure 1: Before CMR

Figure 2: After CMR

Figure 3: Indentation at the polyethylene

CONCLUSION:

Scrupulous surgical technique during initial procedure and extra precaution during closed reduction could provide enhanced security against component disassembly.

REFERENCES:

1. Enocson A, Tidermark J, Törnkvist H, Lapidus LJ. Dislocation of hemiarthroplasty after femoral neck fracture. *Acta Orthop* 2008; 79: 211–217.
2. Georgiou, G., Siapkara, A., Dimitrakopoulou, A., Provelengios, S., & Dounis, E. (2006). Dissociation of bipolar hemiarthroplasty of the hip after dislocation: a report of five different cases and review of literature. *Injury*, 37(2), 162-168.
3. Yan YB, Long CW, Xi SW. Hip Dislocation and femoral component disassembly after bipolar hemiarthroplasty. *Chin Med J (Engl)* 2019 Feb 5; 370-372