

Outcome Of Internal Fixation Of Femoral Head Fractures With Hip Dislocation

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202002

INTRODUCTION:

Fracture of the femoral head associated with hip dislocation is a relatively rare injury. It is most commonly due to high octane trauma associated with vehicular accidents. However it is often associated with a poor functional result.

MATERIAL & METHODS:

We conducted a prospective study consists of eighteen patients (mean age of 35 years) of femoral head fractures. All patients were evaluated using clinical examination, plain radiographs, CT scans and a validated outcome scoring system. The patients were classified according to Pipkin Classification and clinical results were evaluated according to Thompson-Epstein criteria. The series comprised 33% type I, 39% type II, 17% type III and 11% type IV fractures. These fracture-dislocations were managed with emergent closed reduction, followed by definite treatment (closed or open), aiming at anatomic restoration of both fracture and joint incongruity. Mean follow-up of 46 months)

RESULTS:

The approach for surgical fixation has a bearing on the functional outcome. Kocher-Langenbeck posterior approach was associated with more than twice the incidence of avascular necrosis hip when compared with the Smith-Petersen anterior approach. Incidence of wound infection was 5.6% and sciatic nerve palsy complicated 11% of fracture-dislocations which recovered with time. Late complications included avascular necrosis (27.8%), post-traumatic arthritis (27%) and heterotopic ossification (16.6%)

CONCLUSIONS:

The principles of early reduction of hip dislocation, early stabilization, anatomic reduction of the fracture, and rigid fixation are critical principles to attain good results. The Smith-Petersen anterior surgical approach is recommended for the majority of patients with femoral head fractures. For Pipkin 1, fractured fragment excision seems to give better results compared to ORIF, while for the more challenging Pipkin 2 fractures the principles of anatomic reduction and stable fixation should be applied. Neither the trochanteric-flip nor the anterior approach seems to put in more danger the femoral head blood supply compared to the posterior one, with the former giving promising long-term functional results and lower incidence of major complication rates. If there are no vital contraindications, all Pipkin fractures should be treated operatively by reattaching bigger fragments and extracting smaller fragments in Pipkin I and II fractures, trying to save the heads in young, active patients with Pipkin III fractures in contrast to primary arthroplasty in elderly patients with with Pipkin IV fractures.

REFERENCES:

Ross JR et al , Femoral head fractures. *Curr Rev Musculoskeletal Med.* 2012 Sep; 5(3): 199–205