

Outcomes of Bicolumnar Acetabular Fractures Fixation Through Anterior Approach

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PURPOSE:

Bicolumnar acetabular fracture fixation by using single anterior approach, either ilioinguinal or modified Stoppa approach has gained significant popularity in recent years but there is lack of clinical results in this type of complex acetabular fracture. The purpose of this study is to evaluate the clinical and radiological outcomes of the surgical treatment in bicolumnar acetabular fractures using these anterior approaches.

MATERIALS AND METHODS:

A retrospective observational study with 34 patients who underwent surgical treatment for bicolumnar acetabular fracture with either ilioinguinal or modified Stoppa approach from January 2014 to June 2020 were included. The mode of injury, severity of injury, time to surgery, operative time, blood loss, reduction quality and radiological outcome specifically on avascular necrosis of femoral head and heterotopic ossification was reviewed. The Harris hip score (HHS) was used for functional evaluation. Matta radiological score was used for radiological evaluation.

RESULTS AND DISCUSSIONS:

Reduction was anatomic, imperfect, and poor in 32 (94.1%), 1 (2.9%), 1 (2.9%) of

the bicolumnar acetabulum fractures. The mean clinical outcome with HHS was 89.4. The radiological outcomes were excellent in 12, good in 19, fair in 1, and poor in 2 patients. Avascular necrosis of the head of femur and heterotopic ossification was recorded in three and six patients. There was a statistically significant association between avascular necrosis of femoral head and functional outcome of the hip (0.006) as well as avascular necrosis of femoral head and radiological outcome (0.0001).

CONCLUSION:

Both modified Stoppa and ilioinguinal approach is a safe and effective surgical approach for fixation of bicolumnar acetabular fractures with satisfactory results in terms of good reduction of fracture configuration as well as functional and radiological outcomes.

REFERENCES:

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