

Internal Fixation of Acetabular Fractures in an Older Population Using the Lateral-Rectus Approach: Short-Term Outcomes of a Retrospective Study*Shicai Fan, MD; Jiahui Chen; Han Liu; Canbin Wang**Department of Traumatic Orthopaedics, The Third Affiliated Hospital, Southern Medical University, Guangzhou, China, People's Republic of*

Purpose: This study is designed to examine the clinical efficacy and surgical techniques of the lateral-rectus approach for treatment of acetabular fractures in elderly patients.

Methods: After appropriate exclusion, 65 elderly patients with an acetabular fracture that was treated through the lateral-rectus approach from January 2011 to October 2016 were selected retrospectively. By analyzing the medical records retrospectively, the patients' characteristics, fracture type, mechanism of injury, comorbid conditions, American Society of Anesthesiologists (ASA) class, operative time, intraoperative blood loss, and postoperative complications were assessed. Clinical examination radiographs were taken, aligned with the Matta evaluation system. Functional outcomes were evaluated using surveys including Short Form (SF)-36, Harris hip score, and modified Merle D'Aubigne-Postel score.

Results: All 65 patients had undergone the single lateral-rectus approach successfully. Surgery duration was 101.23 min on average (range, 45-210) and intraoperative bleeding was 798.46 mL on average (range, 250- 1800). According to the Matta radiological evaluation, the quality of reduction evaluated 1 week after surgery was rated as "anatomical" in 41 cases (63.1%), "imperfect" in 12 (18.5%), and "poor" in 12 (18.5%). The modified Merle D'Aubigne-Postel score performed 18 months after surgery was categorized as excellent in 40 cases (61.5%), good in 10 (15.4%), and fair in 15 (23.1%). The mean Harris hip score was similar to present research, being 87.18. The mean SF-36 score was 69.12 which was considered as normal for the group age 60 years and older. Several complications were found, including screw loosening in 10 cases, fat liquefaction of incision in 2 cases, deep vein thrombosis in 2 cases, and temporary weakness of hip adductors in 5 cases. None of the patients had heterotopic ossification.

Conclusion: The lateral-rectus approach is a valuable alternative to the ilioinguinal and modified Stoppa approach, for the treatment of acetabular fractures in elderly patients.