Does Surgical Treatment of Proximal Humerus Fractures in Geriatric Hip Fracture Patients Lead to Improved Mobility?

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Purpose: Geriatric patients who sustain combined fractures of the hip and proximal humerus are challenging to manage. This study investigated whether operative treatment of proximal humerus fractures in this patient population was associated with improved mobility before hospital discharge.

Methods: A retrospective review at 3 Level I trauma centers reviewed patients over 60 years old with operatively treated hip fractures (OTA/AO 31A and 31B) and concurrent proximal humerus fractures (OTA/AO 11A-C) managed nonoperatively or operatively during the same admission. Demographics, surgical data, hospital length of stay (LOS), and readmissions were collected. Mobility was assessed using a physical therapist's Activity Measure for Post-Acute Care (AM-PAC) assessment before discharge, which quantified ambulation in terms of number of feet walked.

Results: 46 patients with acute proximal humerus and hip fractures were included with a mean age of 80.7 ± 9.8 years. Females comprised 76.1% of the population. All but one patient had ipsilateral injuries. All hip fractures were treated operatively. 18 patients (39.1%) underwent surgery for their proximal humerus fracture; 50% had locking plate fixation, 16.7% had an intramedullary nail, and 33.3% had a reverse total shoulder arthroplasty.

More operatively treated proximal humerus fracture patients were allowed to weightbear as tolerated versus nonoperatively treated fractures (7/18 vs 3/28, P = 0.02). The operative and nonoperative groups were similar in terms of demographics, LOS, readmission, pain scores, and percent impairment as determined by the AM-PAC assessment. There was no significant difference in ambulatory ability between the group of patients who had operative versus nonoperative treatment of their proximal humerus fracture (28.7 ± 71.8 vs 5.57 ± 15.1 feet, P = 0.28). Over half of all patients (24/46) were not able to ambulate at all prior to discharge. Only one patient was discharged home.

Conclusion: Geriatric patients with combined hip and proximal humerus fractures have poor mobility outcomes. Surgical treatment of the proximal humerus fracture does not appear to significantly improve the ambulatory ability of a patient with an operatively treated hip fracture at time of hospital discharge.