

Functional Outcome in Patients With Internal Fixation of Proximal Humerus Fractures With a Locking Compression Plate

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In a retrospective study, eleven patients with proximal humeral fractures were treated by a single surgeon with the Locking Proximal Humerus Plate. Most of the fractures were complex 3-part (n = 7) and 4-part (n = 2) fractures. These types of fractures are complicated to treat and frequently result in nonunions, malunions, or require hemiarthroplasty and are at risk for post-traumatic AVN. Each patient in this study was examined specifically to evaluate the restoration of function with respect to activities of daily living. Follow-up assessment included radiographs to rule out loosening or failure of the hardware, clinical examination, and recording an American Shoulder and Elbow Surgeon's questionnaire score. Average age at the time of surgery was 66.9 years (range, 50-84 years). The mean follow-up time was 15.5 months (range, 6-30 months). The average forward flexion was 127°, external rotation was 47°, and internal rotation was to T11. When compared to the unaffected side, the average forward flexion of the surgically repaired extremity was decreased 16°; mean external rotation was decreased 26°; and internal rotation was decreased on average by 2 vertebral levels. One patient required conversion to hemiarthroplasty due to nonunion with loosening of the hardware and was excluded from the functional evaluation. There was no incidence of avascular necrosis in this study. Our data shows that fixation of fractures involving the proximal humerus with the Locking Proximal Humerus Plate results in good functional outcomes with no perceived deficits in activities of daily living.