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OUTCOME AND PROGNOSTIC FACTORS FOR HUMERAL HEMIARTHROPLASTY FOR COMPLEX DISPLACED PROXIMAL HUMERAL FRACTURES

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Abstract

Introduction The aim of this study was to assess shoulder hemiarthroplasty for non-reconstructable proximal humeral fractures at a minimum of 12 months and identify factors that aid prognosis.

Methods Patients with a displaced fracture requiring shoulder hemiarthroplasty were studied. Patients were treated using the Neer or Osteonics prosthesis and the decision for hemiarthroplasty was made at the time of surgery. Postoperative management was standardised. An independent functional assessment, record review creating a physiological index on co-morbidities, and a radiological analysis were carried out. Survival analysis was performed for one and five year results and data was analysed by linear regression to identify prognostic factors. From 163 patients there were 138 fitting the criteria, 42 males and 96 females, average age of 68.5 (range 30 to 90) years and follow-up of 6.3 (range 1 to 15) years. The fracture pattern was three or four part in 133 cases and five head split fractures; 58 were associated with dislocation.

Results Survival was 96.4% one year and 93.6% five years, with no significant difference between prostheses. There were eight revisions, (one deep infection, four dislocations and three peri-prosthetic fractures), by 12 months. The average Constant score was 67.1 at one year. Prognostic factors at presentation were patient age and physiological index. At three months factors were implant position, tuberosity union, persistent neurological deficit and any complication.

Conclusion Overall optimum outcome was in patients aged 55 to 60, with minimal co-morbidities and an uncomplicated recovery.

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Footnotes

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