Early versus Delayed Arthroplasty of Proximal Humerus Fractures in the Elderly

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INTRODUCTION: The purpose of this study was to compare the outcomes of reverse total shoulder arthroplasty (RSA) in elderly patients with proximal humerus fractures who underwent early RSA versus those who underwent delayed RSA.
METHODS:
This study was a retrospective review of elderly patients who underwent RSA for proximal humerus fractures. Early RSA was defined as those who underwent arthroplasty within 21 days of their fracture date, while delayed RSA was anyone after 21 days. The patient's postoperative course, including ED visits within 90 days and readmissions within 90 days, was measured. The patient's range of motion (ROM) was evaluated at the 2-year follow up, along with the need for revision surgery.
RESULTS: A total of 115 patients were included, 81 in the early group and 34 in the delayed group. The mean age of patients was 73.9 in the early group versus 72.2 in the delayed group ($p = 0.296$). Additionally, 84% of patients were female in the early group compared to 73.5% in the delayed group ($p = 0.195$). There was no significant difference in ROM (early group vs. delayed group) in forward flexion (114° vs. 110°, $p = 0.575$), external rotation (30° vs. 24°, $p = 0.22$), and internal rotation (4° vs. 3°, $p = 0.274$). Revision rate at two years postoperation was statistically significant between the two groups, with 0% in the early group vs. 8.8% in the delayed group ($p = 0.0065$). There was no statistically significant difference in emergency department visits within 90 days ($p = 0.605$) or readmissions within 90 days ($p = 0.519$) between the two groups.
DISCUSSION AND CONCLUSION:
There was no difference in ROM between those undergoing early and delayed RSA in the current study. However, the early RSA group had lower rates of revision at 2 years postoperation.