

Long-Term Patient-Reported Outcomes After Total Hip Arthroplasty for Displaced Hip Fractures

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Purpose: There is currently no information regarding longer term clinical and patient-reported outcomes in this group of patients selected in accordance with national guidelines. We define the long-term outcomes following total hip arthroplasty (THA) for hip fracture in selected fit elderly patients and compare these to the short-term outcomes in the same previously reported cohort of patients.

Methods: We prospectively identified patients who underwent THA for a displaced hip fracture over a 3-year period between January 1, 2007 and December 31, 2009 in a single center trauma unit, selected on the basis of UK national guidelines. These patients were followed up at 10 years to determine long-term outcomes and levels of patient satisfaction using the Oxford Hip Score, the Short Form 12 (SF-12) questionnaire, and a validated patient satisfaction questionnaire. These outcomes were compared to the short-term outcomes previously assessed at 2 years to determine any potential for deterioration or improvement compared to short-term outcomes.

Results: We identified 128 patients who underwent THA for a displaced hip fracture over this period. Mean follow up was at 9.8 years. 60 patients (48%) had died by the time of review and 5 patients (4%) had developed dementia and were unable to respond. Three patients could not be traced. This left a study group of 60 patients available for recruitment with a mean age of 81.2 years. Patients reported excellent functional outcomes and high levels of satisfaction at 10-year follow-up and when compared with the early results for this cohort at a mean of 2.4 years, there was no statistically significant change in the Oxford Hip Scores, SF-12 scores, or visual analog scale (VAS) satisfaction. Results, presented as 2 years->10 years (P value), are Oxford Hip Score (mean): 41.9 ->40.9 (P = 0.441); SF-12 physical component summary (PCS) (mean): 46.2->46.5 (P = 0.887); SF-12 mental component summary (MCS) (mean): 48.3->48.6 (P = 0.856); and satisfaction (median): 90->90 (P = 0.431). The rates of dislocation (2%), deep infection (2%), and revision surgery (3%) were comparable to those in the literature for elective THA. Mortality in the hip fracture group at 10 years is lower than patients of the same age in the England, Wales and Northern Ireland National Joint Registry undergoing elective THA.

Conclusion: Long-term outcomes for THA after hip fracture in selected patients are excellent and these results demonstrate that the early proven benefits of this surgery are sustained into the long term. Mortality rates at 10 years are superior to elective THA national joint registry data and significantly lower than the overall mortality rates following hip fracture. Our data validate the selection process detailed in current UK national guidelines in selecting patients for THA, in addition to confirming the low complication rate. THA is a safe and highly effective treatment for fit elderly patients who sustain displaced hip fractures as demonstrated by the results of short and long-term follow-up.