Acute Total Hip Arthroplasty Versus Open Reduction Internal Fixation for Geriatric Acetabular Fractures? Patients Prefer Whichever Method Returns Them to Function Fastest: A Discrete Choice Experiment

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Purpose: Certain geriatric acetabular fracture patterns have been associated with higher rates of conversion to total hip arthroplasty (THA), and there has been a trend to perform acute THA on such patients. This study seeks to quantify and compare the relative importance of outcomes and treatment options following acetabular fracture from a patient perspective.

Methods: The study was designed as a discrete choice experiment at a Level I academic trauma center. Adult patients ≥50 years who sustained an acetabular fracture were included in the study. In a series of eight questions, respondents chose between two hypothetical scenarios, defined by six attributes: joint replacement, discharge disposition, weightbearing status, assistive devices use, return to driving, and future surgery. Multinomial logit modeling was used to assess the attribute's relative importance, ranging from 0 to 100%, with high values indicating greater importance.

Results: A total of 63 study participants (median age, 62 years [IQR, 54–70]) completed the survey. The strongest patient preference was for joint preservation (relative importance, 26%; 95% CI, 22%–30%), followed by discharge disposition (relative importance, 19%; 95% CI, 15%–22%) and timeline to another surgery (relative importance, 17%; 95% CI, 14%–21%). Patients generally preferred joint preservation but were willing to undergo joint replacement for better clinical outcomes. Specifically, hip replacement was the preferred treatment if it provided at least two of the following benefits: discharge directly home instead of short-term rehabilitation, avoidance of another surgery by 10 years, immediate instead of delayed weightbearing, or return to driving in 1 month instead of 4 months.

Conclusion: Following acetabular fracture, patients ≥50 years prioritized joint preservation but were willing to undergo joint replacement if it provided multiple clinical benefits related to discharge, revision surgery, weightbearing, and return to driving. These findings may help guide surgeon and patient decision-making, and for those surgeons that do perform acute THA, it may help guide patient-centric protocols.