Paper #4

Complications and Mortality Following Total Hip Arthroplasty in Octogenarians: An Analysis of a National Database

Notes

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Introduction: As advances in medicine have increased life expectancy, more octogenarians are undergoing total hip arthroplasty (THA) than ever before. Concerns exist, however, about the safety of performing this elective procedure in this age group. The purpose of this study is to determine the complications associated with THA patients over 80 years of age and to identify high-risk patients.

Methods: We queried the American College of Surgeons-National Surgical Quality Improvement Program (ACS-NSQIP) database for all patients who underwent primary THA from 2011 to 2014. Demographic variables, medical comorbidities, and 30-day complication, readmission, and reoperation rates were compared between patients under versus over 80 years of age. A multivariate logistic regression analysis was then performed to identify independent risk factors of poor short-term outcomes.

Results: Of the total 66,839 patients who underwent THA, 7,198 (11%) were 80 years of age or older. Octogenarians had a higher overall complication rate (29% vs. 15%, p<0.001), and a higher mortality rate (0.9% vs. 0.1%, p<0.001). When controlling for other comorbidities, age over 80 years is independent risk factor for mortality (OR 2.02, 95% CI 1.25–3.26, p=0.004) and complications (OR 1.41, 95% CI 1.30–1.525, p<0.001) following THA. Malnutrition and chronic kidney disease are also independent risk factors for readmission, complications, and mortality (all p<0.05).

Conclusion: THA in patients older than 80 years old are at an increased risk of complications and mortality. Octogenarian patients should be counseled on their risk profile, particularly those with malnutrition and chronic kidney disease.