

A30

Samer Mahmoud

Advisor(s): David Mai

Patients Receiving Regional Anesthesia for Intertrochanteric Fractures May Have a Lower Risk of Complications and Mortality: A Retrospective Cohort Study

Introduction: Both general and regional anesthesia are options for surgical repair of intertrochanteric fractures with the decision often made based on the personal preference of the anesthesiologist after assessing the patient's medical status. This study aims to investigate potential differences in postoperative outcomes between patients who receive general or regional anesthesia for surgical repair of intertrochanteric fractures.

Methods: The National Surgical Quality Improvement Program (NSQIP) database was used to identify cases of intertrochanteric fractures from 2010 – 2020. Cases were assigned to one of two cohorts by anesthesia modality: regional or general. Primary outcomes included total length of stay, patient disposition, admission mortality, postoperative outcomes, hospital-related outcomes, readmission, reoperation, and 30-day mortality. Confounding variables included age, body mass index (BMI), ASA classification, immunosuppressive therapy, sex, race, ethnicity, smoking, diabetes, functional health status prior to surgery, origin status, emergency case, operation time, and procedure type. Outpatient cases were excluded. Univariable and multivariable analyses were performed. Data was analyzed using R 4.3.2 (R Core Team (2023)).

Results: 51,494 patients were identified. Among the total patients, 488 received regional and 51006 received general anesthesia. Compared to patients in the general anesthesia cohort, those in the regional anesthesia cohort had a lower, significant risk of procedure-related complications (OR 0.81, 95% CI 0.65 to 1.0; p=0.0047) and a lower, significant risk of 30-day mortality (OR 0.54, 95% CI 0.30 to 0.88; p=0.021) on multivariable analyses.

Conclusions: Regional anesthesia was associated with lower 30-day mortality rates and hospital-related outcomes compared to patients who received general anesthesia for surgical repair of intertrochanteric fractures.