No One is Too Sick for a Life Saving Operation!

Lauren A Merrell, Garrett Esper, Abhishek Ganta, Sanjit R Konda, Kenneth A Egol

INTRODUCTION:
Hip fractures are injuries with substantial risk of morbidity and mortality, exacerbated in patients with extensive comorbidities or medical instability. The purpose of this study was to quantify and elucidate outcomes in patients with significant medical comorbidities who undergo fixation following hip fracture.
METHODS: This was an IRB-approved study. All patients who underwent operative fixation of an OTA 31A/31B/32A hip fracture were identified. This dataset was queried for patients with extensive and severe comorbidity profiles, those who were deemed the “highest-risk” at presentation for hip fracture. Patients were classified as “highest-risk” by one of more of the following conditions: kidney failure on hemodialysis, cirrhosis Child class C, cardiac stents within 6 months, acute MI (ST elevation or enzymes), severe mitral stenosis or critical aortic stenosis, severe pulmonary hypertension, need for neurosurgical intervention, or chronic heart failure (class 3-4 symptoms). Each patient was reviewed for demographics, medical history, hospital quality measures (including need for pre-, intra-, or post-operative procedures), and outcomes. Descriptive statistics were performed to evaluate outcomes of this highly vulnerable population.
RESULTS:
Of 2846 hip fracture patients, 152 (5.3%) were deemed the “highest-risk,” presenting with one or more of the above comorbidities. The mean age of patients was 81.77 ± 9.96 years. This cohort was admitted for an average of 8.48 ± 5.17 days and spent an average of 2.51 ± 4.56 days in the ICU. Forty-two (27.6%) patients required an immediate, pre- or post-operative intervention for medical stability. Only 4 (2.6%) patients required immediate intraoperative medical intervention during hip fracture repair. 114 (75.0%) patients experienced a minor complication while admitted for hip fracture, 28 (25.0%) experienced a major complication. The most frequent inpatient complications were anemia (48.7%), acute kidney/renal failure (19.7%), and UTI (18.8%). Six (3.9%) patients expired during admission, 12 (7.9%) within 30-days of surgery, and 27 (17.8%) within 1-year of surgery. Of the entire cohort, 38 (25%) patients were readmitted within 30-days, and 50 (32.9%) within 90-days.
DISCUSSION AND CONCLUSION: Highest-risk hip fracture patients experience prolonged hospitalizations, concurrent procedures, and a high incidence of inpatient complications. Despite these challenges, the majority tolerated their hip fracture surgical procedures well, with a low need for intraoperative intervention for medical stability while under orthopedic care.