

<u>Session/Poster#</u>	<u>Presenter</u>
C17	Samer Mahmoud College of Medicine Student

Advisor(s): Dr. Nishant Suneja, Orthopaedic Surgery & Rehabilitation Medicine

General Anesthesia Versus Spinal Anesthesia in Tibial Plateau Open Reduction Internal Fixation: An ACS NSQIP Analysis 2008-2016

Introduction: Tibial plateau open reduction internal fixation (ORIF) is a common procedure. Patients undergoing these procedures may have comorbidities, which may influence the anesthesia used. This study aims to address potential differences in postoperative complications between general and spinal anesthesia.

Methods: The NSQIP database was queried via CPT codes between 2008 and 2016 for all tibial plateau ORIF procedures which were categorized into general or spinal anesthesia groups, controlling for estimated probability of morbidity, age, and gender. Univariate analysis and multivariate logistic regression models were performed to assess postoperative outcomes.

Results: A total of 3115 patients underwent tibial plateau ORIF; 179 patients in each group were isolated.

Postoperatively, 51 (14.2%) experienced complications, with wound complications being the most common. Operative time for spinal anesthesia was significantly shorter (107.3 vs. 120.2 minutes, $p=0.034$). Age, BMI, ASA class, comorbid conditions, and probability of mortality and morbidity, were not found to differ significantly. Multivariate logistic regression demonstrated that general anesthesia was not an independent predictor of higher risk for any postoperative complication.

Conclusion: Patients undergoing tibial plateau ORIF experienced similar rates of postoperative complications with either general or spinal anesthesia. While no differences were found in the length of hospital stay, readmission, reoperation, or mortality rate between the two groups, there was a significantly lower operative time for the spinal anesthesia group. Such factors need to be considered when determining the anesthetic type to provide patients undergoing tibial plateau ORIF.