

<u>Session/Poster#</u>	<u>Presenter</u>
B43	Giovanni Sanchez College of Medicine Student

Advisor(s): Dr. Danielle Casagrande, Orthopaedic Surgery & Rehabilitation Medicine

**General Anesthesia Versus Regional Anesthesia in Acromioclavicular Joint Reconstructions: An ACS NSQIP Analysis
2008-2016**

Introduction: Acromioclavicular (AC) joint injuries are very common amongst athletes, with more serious injuries requiring AC joint reconstructions. Given its prevalence amongst the athletic and general population, it becomes important to understand the demographics of patients with such injuries, as well as which anesthesia techniques lead to better postoperative outcomes.

Methods: The American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) database was retrospectively queried between 2008 and 2016. 5,275 patients undergoing AC joint reconstructions (CPT codes 23550 23552 23120) were isolated and grouped by the two most common anesthesia techniques used, general and regional. These groups were 1:1 propensity score matched with regards to estimated probability of morbidity, age, and gender. Patient demographics, comorbidities, and 30-day post-operative outcomes were collected and analyzed between groups who received general or regional anesthesia.

Results: Aside from differences in current smoking status between regional and general anesthesia cohorts (12.7% v 26.8%, $p = 0.035$), patient demographics and comorbidities are similar between both groups. Patients who were given regional anesthesia had shorter operative times, as compared to general anesthesia (58.13 v 81.17 min, $p < 0.001$). Rates of postoperative complications, readmissions, reoperations, and mortality are also comparable between both cohorts.

Conclusion: Despite the abundance of criticism for and against regional anesthesia use in shoulder surgeries, it was shown to have similar lengths of hospital stay and major post-operative complications when compared to general anesthesia in AC joint reconstructions. However, decreased operative times, as seen with regional anesthesia, are known to have other advantages. Therefore, such benefits should be considered by surgeons when determining which form of anesthesia to use.