

Effects of Having Crohn's Disease on Post-Operative Outcomes of Primary Shoulder Arthroplasty Patients

Introduction: Crohn's disease (CD) is a chronic inflammatory bowel disease that can affect the entire length of the gastrointestinal tract, leading to abdominal pain, diarrhea, fatigue, and malnutrition. Studies evaluating the impact of CD on postoperative outcomes of patients undergoing primary shoulder arthroplasty (PSA) are limited. The aim of this study is to investigate the impact of CD on postoperative outcomes of patients undergoing PSA.

Methods: A retrospective study was conducted using data collected through the National Inpatient Sample (NIS). All patients who underwent spinal fusion from 2005 to 2012 with a history of prior CD were identified. A 1:1 propensity score-match (PSM) by age, gender, and obesity status was performed before analyzing data. Univariate and multivariable analyses were utilized to compare the incidences of postoperative complications, revision of shoulder arthroplasty and in-hospital mortality in the CD cohort.

Results: A cohort of 237 CD patients and 237 non-CD patients were identified. Both cohorts had similar sex, age and obesity (11.0% vs 11.0%) distributions. Analysis of postoperative outcomes indicated that the patient group with prior CD had significantly higher rates of surgical complications, as compared to non-CD patients ($p = 0.02$). Prior CD was also identified as an independent risk factor for transfusion of blood as a complication (OR=2.577, 95% CI=1.341 – 4.952, $p=0.005$).

Conclusion: Patients with CD who undergo PSA experience higher rates of postoperative surgical and transfusion complications. These findings should be considered to optimize care prior to PSA, while also used to inform surgeons and patients with CD of potential complications that may arise postoperatively.