

**Effect of Having a Prior Colectomy on Post-Operative Outcomes of Primary Shoulder Arthroplasty Patients**

**Introduction:** A colectomy is a surgical procedure in which a portion of the colon is removed. This procedure's impact on postoperative outcomes of patients undergoing primary shoulder arthroplasty (PSA) is poorly understood. The goal of this study was to compare incidence rates and postoperative outcomes between colectomy patients and a control cohort undergoing PSA.

**Methods:** The National Inpatient Sample was queried to identify patients who underwent PSA surgery between 2005 – 2012. Patient demographics and incidence rates of prior colectomy were reported from the years 2005 – 2012. 1:1 propensity score match controlling for age, sex and obesity status was performed. Multivariate logistic regression analysis, controlling for age, sex and obesity status, was done to determine whether prior colectomy was an independent risk factor for postoperative complications.

**Results:** Two cohorts of 231 colectomy patients and 231 non-colectomy patients were identified. Both cohorts had similar sex (57.1% male vs. 61.5% female), age (72.16 vs. 72.80 years) and obesity (16.5% vs. 13.9%) distributions. The average incidence rate of patients who underwent a colectomy procedure between 2005 – 2012 was 0.95 (95% CI: 0.53– 1.38). Colectomy procedures were found to be an independent predictor of having an increased risk of surgical complications (OR=2.552, 95% CI=1.437-4.533, p=0.001), medical complications (OR=2.728, 95%CI=1.223 – 6.031, p=0.013), and transfusions (OR=2.862, 95%CI=1.498 – 5.465, p=0.001) (Table 1).

**Conclusions:** Colectomy patients who underwent PSA experienced higher rates of post-operative surgical complications, medical complications, and transfusions. These findings should be considered when trying to optimize these patients prior to PSA surgery.