

Session/Poster#

Presenter

B45

Karina Soorya

College of Medicine Student

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

Effect of Atrial Septal Defect on Postoperative Outcomes of Primary Shoulder Arthroplasty Patients

Introduction: Atrial Septal Defect (ASD) is a congenital heart defect defined by an insufficient interatrial septum. ASD can lead to life-threatening complications, and in the literature, the impact of ASD on outcomes following Primary Shoulder Arthroplasty (PSA) is poorly understood. This study explores whether postoperative outcomes vary between PSA patients based on ASD status.

Methods: The National Inpatient Sample was queried retrospectively from 2005-2012 to identify patients who underwent PSA (ICD9: 8180, 8181 and 8188). Demographics and incidence rates of patients diagnosed with ASD were reported from 2005-2012. These patients were stratified into two cohorts based on ASD status and a 1:1 propensity score match controlling for age, sex and obesity status. Univariate analysis was used to compare rate of postoperative complications, revision of shoulder arthroplasty (ICD9: 8197) and in-hospital mortality while multivariate logistic regression analysis was used to find whether ASD serves as an independent risk factor for postoperative complications.

Results: Following propensity score matching, two cohorts of 72 ASD patients and 72 non-ASD patients were identified. Both cohorts had similar demographic profiles, including sex (66.4% vs 66.2% female), age (73.08 vs 71.97 years) and obesity (18.2% vs 19.5%). The average incidence rate of patients who had an ASD from 2005 to 2012 was 0.30 (95% CI: 0.19 - 0.41) per 1,000,000 person years. Incidence rates of ASD patients increased by 4.96% from 2005-2012. ASD patients who underwent PSA did not experience different rates of postoperative complications (all, $p>0.05$). Multivariate logistic regression suggested that patients with ASD were not at increased risk for complications following PSA (all, $p>0.05$).

Discussion and Conclusion: ASD patients undergoing PSA did not experience increased risk in postoperative complications as compared to non-ASD patients which endorses further consideration of PSA in ASD patients.