Session/Poster# Presenter

C13 Sharon Lee
College of Medicine Student

Advisor(s): Dr. Carl Paulino, Orthopaedic Surgery & Rehabilitation Medicine

Retrospective Cohort Study Examining the Effect of Having a Prior Colectomy on Postoperative Outcomes of Adult Laminectomy Patients

Introduction: Laminectomy is a widely performed surgical procedure which involves removal of the lamina of the spinal canal. The impact of having a prior colectomy on postoperative outcomes of adult patients undergoing a laminectomy is poorly understood. This retrospective cohort study examines postoperative outcomes of adult patients undergoing laminectomy who have had a prior colectomy, as compared to patients who have not had a prior colectomy.
Methods: The National Inpatient Sample was queried to identify patients who underwent laminectomy surgery from 2005 - 2012. A 1:1 propensity score match was used to control for age, sex, and obesity. A univariate analysis identified differences in postoperative complications in the colectomy cohort. A multivariate logistic regression analysis determined colectomy status as an independent risk factor for postoperative outcomes.
Results: 630 colectomy patients and 630 non-colectomy patients were identified with similar sex (45.4% vs 44.6% female), age (66.7 vs 66.8) and obesity (12.7% vs 13.7%) distributions. Prior colectomy patients were found to be at increased risk for postoperative surgical complications (OR=1.8 [1.3-2.4]), wound (OR=2.1 [1.3-3.4]), central nervous system (OR=1.6 [1.1-2.5]), medical (OR=3.3, [2.2-4.7]), gastrointestinal (OR=8.3 [2.5-27.6]), acute renal failure (OR=2.9 [1.6-5.2]), sepsis (OR=6.3 [2.9-13.4]), and in-hospital mortality (OR=9.0 [2.7-29.9]) (all $p<0.05$). The number of patients with overall surgical complications, medical complications, and in-hospital mortality was significantly increased as compared to control ($p>0.05$).
Conclusions: Adult laminectomy patients with a prior colectomy had increased risk of postoperative surgical, medical, and in-hospital mortality complications. Providers should be aware of these risks when prepping for laminectomy surgery in such patients.