

Effect of Having Crohn's Disease on Postoperative Outcomes of Adult Laminectomy Patients

Rationale: To characterize incidence rates and postoperative outcomes between adult patients who have Crohn's disease (CD) and a control cohort undergoing laminectomy surgery. CD is an inflammatory bowel disease that may lead to abdominal pain, severe diarrhea, fatigue, weight loss and malnutrition. The impact of having CD on postoperative outcomes of adult patients undergoing laminectomy surgery is poorly understood.

Methods: The National Inpatient Sample was queried to identify patients who underwent laminectomy surgery in 2005–2012. Patient demographics and incidence rates of patients that have had CD were reported in 2005–2012. A 1:1 propensity score match controlling for age, sex, and obesity status was performed. Univariate analysis compared differences in postoperative complications and in-hospital mortality between the two cohorts. Multivariate logistic regression analysis controlling for age, sex and obesity status was performed to determine CD status as an independent risk factor for postoperative outcomes between the two cohorts.

Results: A cohort of 535 CD patients and 535 non-CD patients were identified and had similar sex, age and obesity distributions. The average incidence rate of patients who had CD from 2005–2012 was 2.7 per 1,000,000 person year. Incidence rates of CD patients increased by 7.6% from the years 2005–2012. CD patients who underwent a laminectomy procedure experienced higher rates of wound complications, sepsis, and deep vein thrombosis (all, $p < 0.05$). Patients with a prior CD who underwent laminectomy were at an increased risk for postoperative wound complications (OR=1.8), and sepsis (OR=2.8).

Conclusions: Adult patients with CD who undergo a laminectomy experience higher rates of postoperative wound complications, sepsis, and deep vein thrombosis. These findings should be taken into consideration in CD patients to optimize them prior to laminectomy surgery and to prepare providers for such potential postoperative complications.