

Session/Poster#

Presenter

C10

Jordan Eidlitz

College of Medicine Student

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

Effects of Having Acquired Immunodeficiency Syndrome on Post-Operative Outcomes in Patients Undergoing Laminectomy

Introduction: AIDS results in severe immune dysfunction. The impact of AIDS on adult laminectomy patient outcomes is poorly understood. This study compares incidence rates and postoperative outcomes of adult AIDS patients and a control cohort undergoing laminectomy.

Methods: The National Inpatient Sample was used to find laminectomy patients 18+ years old from the years 2005 - 2012. Patient demographics and incidence rates of AIDS were reported. 1:1 propensity score match controlling for age, sex and obesity was performed. Univariate analysis was used to compare differences in postoperative complications and in-hospital mortality between patients with and without AIDS. Multivariate logistic regression analysis controlling for age, sex, race, and obesity status was done to find independent risk factors for postoperative complications.

Results: Cohorts of 183 AIDS patients and 183 non-AIDS patients were found. Both cohorts had similar sex (12.6% vs 15.3% female, $p=0.450$), age (49.48 vs 50.67 years, $p=0.339$) and obesity (1.6% vs 3.3%, $p=0.502$) distributions. The average incidence rate of patients with AIDS increased 7.86% from 2005 - 2012 and was 0.9 (95%CI: 0.7- 1.1) per 1,000,000 person years. Laminectomy patients with AIDS had higher rates of transfusions (13.1% vs 3.8%, $p=0.001$), medical complications (23.0% vs 6.0%, $p<0.001$) acute renal failure (7.1% vs 0.5%, $p=0.001$), sepsis (7.7% vs 0.5%, $p=0.001$), and in-hospital mortality (23.0% vs 6.0%, $p=0.001$). AIDS was associated with increased risk of transfusions (OR=3.8, 95%CI=1.6-9.0, $p=0.003$), acute renal failure (OR=13.9, 95%CI=1.8-107.5, $p=0.012$), sepsis (OR=15.1, 95%CI=2.0-115.9, $p=0.009$), and in-hospital mortality (OR=9.4, 95%CI=1.2-75.1, $p=0.034$).

Conclusion: Laminectomy patients with AIDS required more transfusions and suffered more medical complications, acute renal failure, sepsis, and in-hospital mortality in the postoperative period. Further studies should investigate the etiology of these complications.