

Session/Poster#

Presenter

C09

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### **Surgical and Medical Complications Increase Following Adult Laminectomy in Patients with End-Stage Renal Disease**

**Introduction:** End-stage renal disease (ESRD) is a medical condition in which a patient's kidneys cease to function leading to the need for long-term dialysis or kidney transplantation. The objective of this study is to characterize incidence rates of ESRD in adult laminectomy patients and compare postoperative outcomes between those with ESRD and a control cohort.

**Methods:** The National Inpatient Sample was queried to identify patients who underwent laminectomy surgery (ICD9: 0309, 0302) from the years 2005-2012. Patient demographics and incidence rates of patients that had ESRD were reported from the years 2005-2012. 1:1 propensity score match controlling for age, sex, race, and obesity status was performed. A cohort of 912 ESRD patients and 912 non-ESRD patients was identified. Both cohorts had similar age (61.6 vs 62.0 years) and obesity (11.4% vs 11.0%) distributions. Univariate analysis was used to compare differences in postoperative complications and in-hospital mortality. Multivariate logistic regression analysis controlling for age, sex, race, and obesity was performed to determine ESRD status as an independent risk factor for postoperative outcomes.

**Results:** The average incidence rate of patients who had ESRD from 2005-2012 was 4.4 (95% CI: 3.3-5.5) per 1,000,000 person-year. Incidence rates of ESRD patients increased by 60.1% from the years 2005-2012. ESRD patients who underwent a laminectomy procedure experienced higher rates of and were at an increased risk for overall surgical and medical complications and in-hospital mortality compared to the control cohort (all,  $p < 0.05$ ). These patients also had higher rates of specific complications such as pneumonia, sepsis, and others ( $p < 0.05$ ).

**Conclusion:** Adult patients with ESRD who underwent laminectomy experienced higher rates of surgical and medical complications. These findings should be taken into consideration in ESRD patients prior to laminectomy surgery and to prepare providers for potential complications.