

<u>Session/Poster#</u>	<u>Presenter</u>
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Should You Transplant the Kidney Before or After Laminectomy Surgery in Adult Patients with End Stage Renal Disease?

Introduction: End Stage Renal Disease(ESRD) is associated with changes in cardiovascular function, homeostasis in body fluid, bone metabolism, and erythropoiesis. The clinical outcomes for adult patients who undergo laminectomy surgery with ESRD or have received a transplant prior to the operation have not been extensively compared.

Methods: The National Inpatient Sample was queried to identify patients who underwent laminectomy surgery(ICD9:0309,0302) from the years 2005-2012, and demographics and incidence rates of patients with ESRD and those that received kidney transplants were collected. Univariate analysis was used to compare differences in postoperative complications and in-hospital mortality in the transplanted and ESRD cohort. Multivariate logistic regression analysis controlling for age, sex, race, and obesity status was performed to determine ESRD compared to prior kidney transplant status as an independent risk factor for postoperative outcomes.

Results: The average incidence rate of patients with ESRD from 2005-2012 was 4.2(95%CI:3.1-5.3) per 1,000,000 person years and 1.2(95%CI:1.1-1.4) per 1,000,000 person years for those treated with kidney transplant. 1,347 patients with ESRD or kidney transplants were isolated. Incidence rates of ESRD increased 62.14% while prior kidney transplant decreased by 0.36% from the years 2005-2012 in adult laminectomy patients. Compared to the prior kidney transplant group, ESRD patients had increased risk of surgical complications (OR=2.5), medical complications (OR=2.5), wound complications (OR=2.8), blood transfusions (OR=3.0), acute renal failure (OR=2.1), sepsis (OR=4.5), cerebrovascular events (OR=3.7) and in-hospital mortality (OR=5.9).

Conclusion: Adult ESRD patients who undergo a laminectomy experienced higher rates of complications, and in-hospital mortality. These findings should be taken into consideration to optimize care for ESRD patients by having a kidney transplant prior to laminectomy surgery.