

Session/Poster#

Presenter

C21

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Should You Transplant the Kidney Before or After Total Hip Arthroplasty in Patients with ESRD

Introduction: In patients with ESRD, a successful kidney transplant can improve quality of life and reduce risk of mortality when compared to maintenance dialysis. This study aims to compare outcomes in kidney transplant versus ESRD patients undergoing total hip arthroplasty (THA).

Methods: Using the National Inpatient Sample (NIS), patients admitted from 2005-2012 with ESRD or prior kidney transplant who underwent THA were retrospectively reviewed. Patients with prior kidney transplant with concomitant ESRD were excluded. Univariate analyses evaluated demographics, complications, and subsequent revision. Multivariate binary logistic regression models were conducted to identify correlations between ESRD or prior kidney transplant and postoperative THA outcomes.

Results: The ESRD cohort, had higher mean age (63.77 years vs. 54.95 years, $p < 0.001$), Deyo score (3.2896 vs. 1.1058, $p < 0.001$), length of stay (7.71 days vs. 4.12 days, $p < 0.001$), and surgical charge (\$86,279.71 vs. \$53,482.61, $p < 0.001$). The average incidence rate between 2005-2012 is 4.07 [3.21 - 4.92] for ESRD and 2.52 [2.31 - 2.73] for kidney transplant. During this period, incidence rate for ESRD increased by 0.3778% and decreased by 0.067% for kidney transplant. Rates of surgical complications were increased in the ESRD cohort ($p < 0.001$). ESRD patients, compared to the kidney transplant patients had higher risk for surgical complications (OR: 2.238 [1.415 - 3.542], $p < 0.001$), nonunion of fracture (OR: 5.139 [1.981 - 13.336], $p = 0.001$), prosthetic implant joint (OR: 2.149 [1.034 - 4.469], $p = 0.040$), acute renal failure (OR: 0.559 [0.344 - 0.908], $p = 0.019$), and sepsis (OR: 3.892 [1.326 - 11.425], $p = 0.013$).

Conclusion: ESRD patients had higher surgical charges, greater length of stay, risk of surgical complication and Deyo score than kidney transplant patients undergoing THA. These results support management of postoperative expectations and concerns within this patient cohort.