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P199 - Pre-operative factors predicting early admission to the intensive care unit (ICU) after kidney transplantation.

Dr. Nitin Abrol[1], Dr Rahul Kashyap[2], Dr Timucin Taner[1]
[1]1) William J. von Liebig Center for Transplantation and Clinical Regeneration, Mayo Clinic, Rochester, United States, [2]Department of Anesthesiology and Peri-operative Medicine, Mayo Clinic, Rochester, United States

Aims: The aim of this study was to identify pre-operative factors predicting early admission (within 30 days) of adult kidney transplant recipients to the ICU.

Methods: This is a single-center, retrospective study of 1878 consecutive kidney transplant recipients between January 2007 and December 2016. Children (age<18 years), multi-visceral transplants were excluded from the analysis (n=351). Associations between demographic, transplant related, and co-morbidity variables with ICU admission within 30 days of transplant surgery were analyzed using univariate and multivariable logistic regression models.

Results: Of the 1527 adult patients with kidney transplant, 305 (20%) required ICU admission within 30 days of transplant. In univariate models, older age at surgery, higher BMI, previous transplant, diabetes, history of myocardial infarction, congestive heart failure, COPD, longer ischemia time, pre-transplant dialysis, and deceased donor transplant significantly increased odds of ICU admission. After multivariable adjustment, every 10 year increase in recipient age (OR 1.26; 95% CI 1.12-1.42, p<.001), 5 unit increase in BMI (OR 1.11, 95% CI 1.00-1.22, p=0.049) pre-transplant dialysis (OR 1.57; 95% CI 1.19-2.08, p=0.002), deceased donor transplants (OR 1.82; 95% CI 1.29-2.55, P<.001) were associated with significantly increased risk of ICU-admission. Basiliximab (ref=Thymoglobulin, OR 0.38, 95% CI 0.26-0.55, p<.001) users had significantly lower odds of ICU admission. Overall, in-hospital mortality was 0.3% for the ICU (n=5) and 0% for the non-ICU cohorts.

Conclusion: Age at transplantation and pre-transplant dialysis significantly increase odds of early ICU admission after kidney transplant surgery while living donor and pre-emptive transplant decrease these odds. Early referral of end stage renal disease patients for pre-emptive kidney transplant can significantly reduce transplant related ICU admissions.