31 - Title: Postoperative Morbidity and Mortality in Patients with End Stage Renal Disease Undergoing Free Flap Reconstruction of the Head and Neck

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Background: Relatively little data exists regarding the ways in which end-stage renal disease (ESRD) affects microvascular surgery outcomes. This study sought to identify whether ESRD was an independent predictor of 30-day postoperative complication and readmission rates after head & neck free flap reconstruction.

Methods/Research Design. The TriNetX database was used to identify individuals who underwent head and neck free flap reconstruction between 2014 and 2023. Two cohorts were created based on whether or not patients had ESRD. Propensity score matching based on demographics and relevant comorbidities were performed. Differences in 30-day complication and readmission rate were then compared between cohorts.

Results (or Preliminary Results, as applicable for a project in progress): After propensity matching was performed, ESRD patients were noted to have significantly higher risks of deep vein thrombosis (aRR 2.308, $p = 0.008$), myocardial infarction (aRR 2.005, $p = 0.045$), pneumonia (aRR 1.897, $p < 0.001$), anemia (aRR 1.452, $p = 0.011$), skin graft-associated complications (aRR 2.900, $p = 0.002$), fluid overload (aRR 1.862, $p = 0.043$) and mortality (aRR 2.200, $p = 0.030$). Compared to controls, ESRD patients had a lower likelihood of readmission (aRR 0.630, $p = 0.024$).

Conclusion (or Preliminary Conclusion, as applicable for a project in progress): This study demonstrated that ESRD can significantly influence several early postoperative outcomes of head and neck free flap surgery when controlling for demographics and other comorbidities.