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P197 -Sex-dependent clinical outcomes after kidney transplantation: a retrospective single-centre analysis

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Previous studies relating to stratified gender-related outcomes after kidney transplants have focused on differences between sexes and post-transplant graft function and/or graft survival. Very few studies have explored other clinically important outcomes such as difference in rates of re-hospitalisation or medical complications. Such information would allow more personalised counselling and alert transplant professionals with regards to expected post-transplant course. The aim of this study was to analyse gender-stratified outcomes after kidney transplantation in a single-centre retrospective analysis.

Data was extracted from hospital informatics systems for all kidney allograft recipients transplanted at our centre between 2007 and 2018. Electronic patient records were manually searched for the most recent pre-operative echocardiogram to create a comprehensive database of baseline demographics, donor details, clinical/biochemical parameters, histology and clinical events. Data with regards to hospitalisation episode were extracted from Hospital Episode Statistics, an administrative database of secondary care admissions. Mortality, graft loss, delayed graft function, 1-year rejection and 1-year creatinine values were crosschecked with registry data obtained from the UK Transplant Registry.

Our cohort comprised 1,770 kidney transplant recipients, which included 1,058 (59.8%) males and 712 (40.2%) females. Median time post-transplant was 5.3 years (IQR 2.7-8.7 years), with cumulative 9,958.5 patient-years of follow up. Males versus female kidney transplant recipients had similar mean age, recipient BMI, ethnicity and type of kidney donor. Males versus females were more likely to have pre-existing history of myocardial infarction (3.8% versus 1.5% respectively, p=0.003) and peripheral vascular disease (1.7% versus 0.7% respectively, p=0.051), but less likely to have connective tissue disorders (0.6% versus 4.6% respectively, p<0.001) and pulmonary disease (6.3% versus 8.8% respectively, p=0.030). Comparing outcomes between males to females, there was no difference in length of post-operative hospital admission, rates of delayed graft function, 1- year rejection or risk for emergency re-admission within 90-days. There was no difference in risk for admission due to a cardiology or cancer indication but males were more likely to be admitted with a cerebrovascular indication (3.8% versus 2.1% respectively, p=0.030) and females more likely to be admitted with an infection indication (23.7% versus 18.5% respectively, p=0.005). Comparing males to females, there was no difference in rates of death (10.4% versus 10.7% respectively, p=0.456) or death-censored graft loss (15.6% versus 16.2% respectively, p=0.401), but female versus male kidney transplant recipients had a trend towards lower estimated glomerular filtration rates at 1-year post kidney transplantation (49.5 versus 52.3 respectively, p=0.065).

Our data suggests different post-transplant course for male versus female kidney transplant recipients, with different risk ratios for hospital admission with regards to underlying cause. While our data confirmed previous reports of different graft function between males and females after kidney transplantation, there was no difference in patient or graft survival. Our analysis is reassuring regarding equivalent survival outcomes for female and male recipients and also provides sex-specific outcome data to facilitate more targeted counselling prior to kidney transplantation.