P193

P193 -Cardiovascular disease and malignancy are the pre-eminent factors in transplant recipient mortality over a 5-year period

Dr Rebecca Ryan[1], Dr Iain Moore[1]
[1]*South Tees Hospitals NHS Trust, Middlesbrough, United Kingdom*

We work in a tertiary referral renal unit, covering a population of just over 1 million. Currently we have 569 kidney transplant recipients. We receive 45-50 new transplant (Tx) recipients per annum.

We wished to review Tx recipient outcomes to assess preventable co-morbidity. We created a dataset of Tx recipients who died with a functioning graft over a 5-year period, from 1st May 2013 to 1st May 2018. Eighty-nine Tx patients died with a functioning graft during this period. We gathered the following information: whether the Tx was a live donor (LD), donor after cardiac death (DCD) or donor after brain death (DBD) kidney, recipient index renal disease, age at transplant, age at time of death, graft function at time of death and cause of death.

Of our 89 recipients, 51 received DBD, 19 received DCD and 19 received LD kidneys. Eight patients received pre-emptive transplantation; 81 patients were already treated with dialysis. Mean recipient age at Tx was 52.5 years (range 27-75 years). The average time between transplantation and death was 142.2 months (range 5-504 months). Mean age at time of death was 64.1 years (range 36-87 years). Average eGFR (MDRD calculation) at time of death was 45.6 ml/min (range 6-121 ml/min).

The most common cause of death (CoD) was cardiovascular disease, leading to a total of 28 deaths in our cohort: 12 from cardiac arrest/sudden death, 8 from myocardial infarction (MI) and a further 8 from cardiac failure. The next most common CoD was malignancy, accounting for 18 deaths. Post-transplant lymphoproliferative disease (PTLD) caused 2 deaths. Pulmonary disease caused a total of 14 deaths, with 9 due to bacterial infection, 1 due to tuberculosis (TB), 1 due to viral infection, 1 due to fungal infection and 2 due to chronic obstructive pulmonary disease (COPD).

Septicaemia was next most common, causing 7 deaths, along with vascular disease: 5 deaths due to cerebrovascular disease, 1 due to peripheral vascular disease and 1 due to mesenteric infarction. Dementia caused 2 deaths; there was 1 death each from multi-organ failure, perforated colon, haemorrhage from graft, cirrhosis and treatment withdrawal. Six recipients died from unknown causes.

Given the various immunosuppressive regimes our patients had, it is difficult to account for drug exposure. Our data however show malignancy and cardiovascular disease were more likely to occur in patients who had been transplanted longer. PTLD occurred in 2 patients transplanted for a total of 156 and 260 months (13 years and 21 years 7 months, respectively). Our recipient with the shortest Tx life (5 months) had airways disease that became severe post-Tx. He declined further intervention and chose palliation. Most recipients died with good Tx function.

In future, we hope to see a reduction in the major causes of co-morbidity identified – cardiovascular disease and malignancy – with increased patient education and awareness. We plan to focus on cardiovascular risk factor reduction and tailored immunosuppressive regimes.