FO050

TWO DECADES OF EUROTRANSPLANT SENIOR PROGRAM (ESP): TIME ON DIALYSIS INDEPENDENTLY IMPACTS PATIENT SURVIVAL, ALLOGRAFT SURVIVAL AND QUALITY OF LIFE AFTER KIDNEY TRANSPLANTATION

Thomas Schachner2,3,1, Natale Otto3, Petra Reinke3,2
1Charité and Max Delbrueck Center, Berlin Institute of Health (BIH), Berlin, Germany,
2Berlin-Brandenburg Center for Regenerative Therapies, Charité University Medicine Berlin, Berlin, Germany and 3Nephrology and Internal Intensive Care, Charité University Medicine Berlin, Berlin, Germany

INTRODUCTION AND AIMS: In 1999, the Eurotransplant Senior Program (ESP) was implemented within the Eurotransplant kidney allocation scheme, due to an increasing number of older recipients and donors. The ESP allocates kidneys from deceased donors ≥65 years to kidney transplant recipients ≥65 years (ESP-KTRs), and aims to shorten cold ischemic time by leaving out HLA matching and regional allocation.

METHODS: We analyzed patient and kidney allograft outcomes of 244 ESP-KTRs between 1999 and 2017. All ESP-KTRs were assessed by a questionnaire-based survey with respect to mental and physical health using the standardized short form-8 questionnaire (SF-8). A control group of 82 dialysis patients waitlisted within the ESP was used for comparison.

RESULTS: We observed 1-year, 5-year, and 10-year patient survival of 92.5%, 67.6%, and 38.2%, respectively. Upon multivariate analysis mortality risk factors included prolonged initial hospital stay (p=0.004), male gender (p=0.017), and time on dialysis (p=0.012). 1-year, 5-year, and 10-year death-censored allograft survival was 92.1%, 81.0%, and 70.0%, respectively. Risk factors that were independently associated with allograft loss included time on dialysis (p<0.001) and acute cellular rejection (p<0.001). After re-initiation of dialysis treatment after allograft loss median patient survival was 46 months (range: 0-152 months). No ESP-KTR underwent retransplantation after allograft loss. We observed 1-year, 5-year, and 10-year uncensored allograft survival of 85.2%, 55.4%, and 26.7%, respectively. 45.1% of ESP-KTRs showed delayed graft function and 3.7% of ESP-KTRs showed primary non-function. Kidney allograft function at 1-year, 5-years, and 10-years posttransplantation were 44.6mL/min, 40.5mL/min, and 39.1mL/min, respectively. Median physical and mental component scores (PCS/MCS) of ESP-KTRs were 40.2 (range: 16.9-62.5) and 48.3 (range: 21.1-62.5), respectively, and significantly higher compared to dialysis patients waitlisted within the ESP (p<0.05). The only factors, that were independently associated with inferior PCS and MCS after kidney transplantation, were recipient age (p=0.013) and time on dialysis (p=0.043). 97% of ESP-KTRs who underwent successful kidney transplantation would choose again to do so.

CONCLUSIONS: Kidney transplantation within the ESP shows highly favorable patient and allograft outcomes independent of recipient and donor age. However, prolonged time on dialysis significantly impacts patient and allograft outcomes and accounts also for inferior quality of life after successful kidney transplantation. This finding may be attributed to longer time from medical evaluation to transplantation among those ESP-KTRs and call for more frequent and critical medical re-evaluation.