

P1619 OUTCOME OF HIGH DONOR-RECIPIENT AGE GAP IN LIVE-DONOR RENAL TRANSPLANTS IN TACROLIMUS ERA

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Background and Aims: High donor-recipient age gap among deceased-donor renal transplant patients leads to worse outcomes. However, the impact of this gap among live-donor renal transplants is unclear. The aim of this study is to assess the effect of this age gap on graft survival and acute rejection rates among renal transplants in tacrolimus era.

Method: 14390 live-donor renal transplant patients who received a single organ transplant, had no previous renal transplants, discharged on tacrolimus-based immunotherapy and were registered in the Organ Procurement Transplantation Network from January 2000 till June 2017 were included in the study. Donor-recipient age difference was divided into 5 groups; group A (difference < -10, n=4375), group B (difference from -10 to 10, n=7229), group C (difference between 10-20, n=861), group D (difference between 20-29, n=1406) and group E (difference ≥30 years, n=519). Poisson regression analysis was used to assess effect of age gap on acute rejection rates. Kaplan-Meier survival curves and Cox hazard regression analysis were used to assess this effect on graft survival.

Results: Regarding graft survival, groups with age difference ≥30 years and between 20-29 years showed a significantly higher risk of graft loss when compared to group with age difference < -10 (HR equals 4.6 and 3.8 respectively). Groups with age difference between 10 to 20 years and between -10 to 10 years showed no significant difference in graft survival when compared to same group (HR equals 1.03 and 0.95 respectively). Groups B,C,D,E were not associated with increased risk of acute rejection episodes when compared to group A (IRR=1.001, 1.001, 1.022, 1.027 respectively).

Conclusion: Donor-recipient age difference up to 20 years has similar renal transplant outcomes to those receiving kidneys from younger donors and therefore, should not be precluded from paired kidney donation programs. The donor-recipient age difference above 20 years is associated with worse outcomes in terms of graft survival.