

## Immunologic outcomes in elderly kidney transplant recipients

D. Khadzhynov, F. Halleck, L. Liefeldt, P. Glander, J. Bamoulid, S. Kreimer, L. Lehner, K. Budde and O. Staeck

Department of Nephrology, Charité Universitätsmedizin Berlin, Germany

**Introduction:** Only few data are available about immunologic outcomes of elderly kidney transplant recipients (KTR).

**Methods:** This retrospective long-term observational study included all adult kidney transplant recipients at our center 2006-2014 (n=814). Follow-up DSA analysis was routinely performed. Allograft biopsies were performed for clinically suspected rejections. Categorization of age at transplantation was < 65 versus ≥ 65 years (n=609, 74.9% vs. n=205, 25.1%, respectively). Data analysis included overall patient and graft survival, biopsy proven rejection episodes (TCMR and ABMR) and development of de novo DSA. Outcome data were assessed over a period of maximal 8 years.

**Results:** Demographics are shown in Table 1. Elderly KTR showed significantly higher donor age, shorter cold ischemia time, shorter time on dialysis prior to transplantation and more HLA mismatches. 7-year patient and graft survival were significantly different between the two groups (Fig.1A-C). While elderly KTR tended to have a higher frequency of de novo DSA (Fig.1D) the incidence of ABMR was not significantly different (Fig.1E). The risk of TCMR was significantly higher in the elderly group (Fig.1F). The multivariate analysis adjusted for donor and recipient age, mismatches, sex and prior transplantation identified mismatches as the only independent risk factor for TCMR (HR 1.201, p<0.001).

**Conclusions:** Due to the nature of ESP increased age of donors and recipients and more HLA mismatches are risk factors for worse graft outcomes and mortality. While the incidence of TCMR was higher, ABMR was not increased in elderly KTRs despite a trend of more de novo DSA.

Figure 1

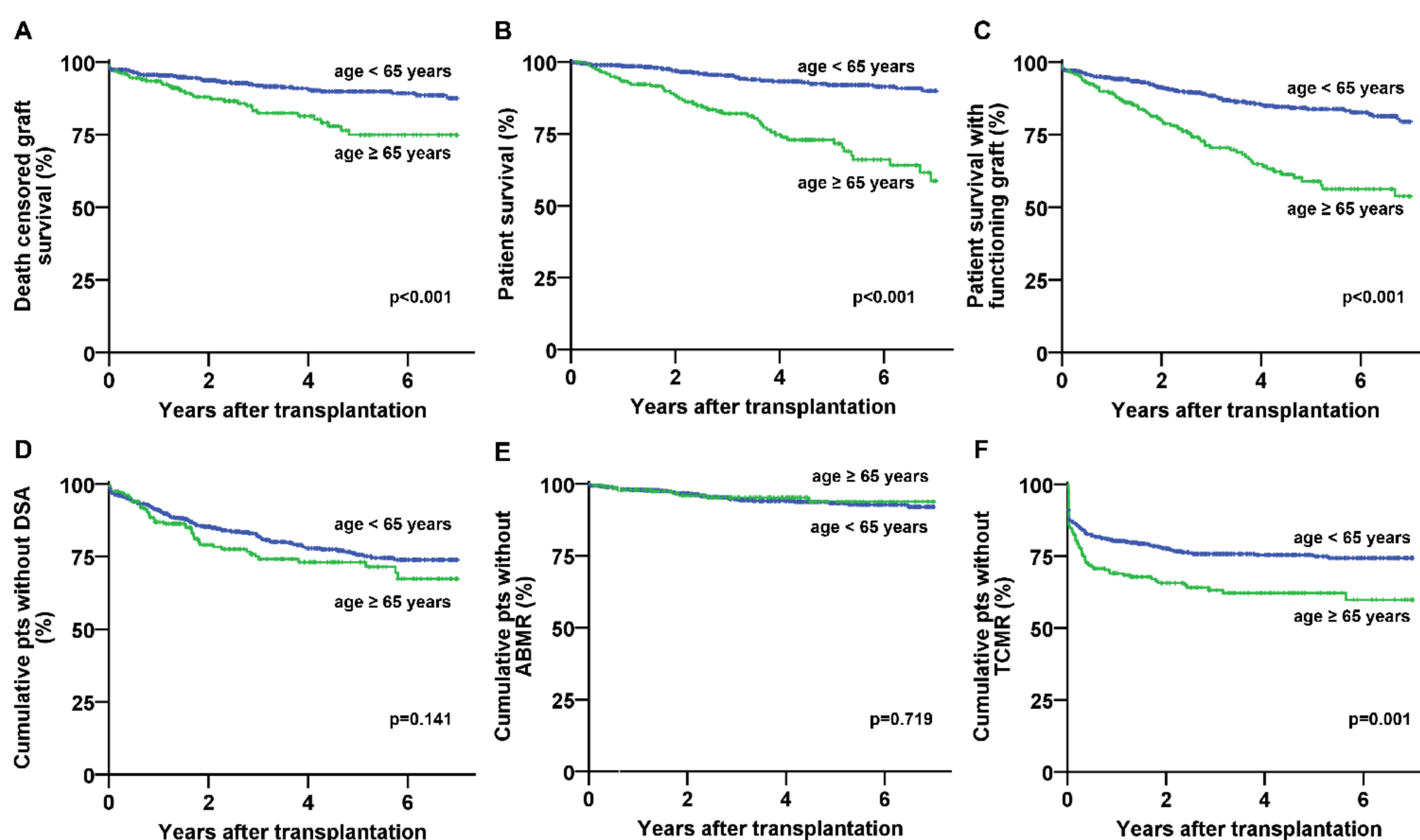


Table 1

Patient characteristics	all n=814	recipient age <65 years n=609	recipient age ≥ 65 years n=205	p
Mean follow up, years (SD)	3.8 (2.4)	3.9 (2.4)	3.6 (2.3)	0.105
Mean recipient age, years (SD)	52 (15)	46 (12)	69 (4)	<0.001
Mean donor age, years (SD)	54 (15)	49 (12)	69 (9)	<0.001
Male, n	489 (60%)	370 (61%)	119 (58%)	0.510
Living donor, n	259 (32%)	238 (39%)	21 (10%)	<0.001
Prior kidney transplantation, n	93 (11%)	84 (14%)	8 (4%)	<0.001
Median time on dialysis, months (IQR)	55 (24-86)	63 (23-92)	44 (25-62)	<0.001
Median cold ischemia time, hours (IQR) †	11.2 (8.0-14.6)	11.8 (8.4-15.5)	9.9 (7.6-12.3)	<0.001
Median HLA-mismatches (IQR)	3 (2-4)	2 (2-3)	4 (3-5)	<0.001

