

KIDNEY TRANSPLANTATION IN TYPE 2 DIABETIC PATIENTS: A MATCHED SURVIVAL ANALYSIS

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Background: Diabetes mellitus (DM) is the most prevalent cause of kidney failure. Some concerns have been raised about the kidney transplantation (KT) results in diabetic patients. Therefore we compared outcomes between diabetic and non-diabetic patients after KT.

Methods: All kidney transplants performed in type 2 diabetic patients, from July 1983 to December 2009 in our centre, with a graft survival over 3 months, were included. Non-diabetic controls were individually matched with diabetic patients with respect to gender, age (± 5 years), year of transplantation (± 1 year), number of donor HLA mismatches (± 2) and dialysis vintage (± 12 months). The two groups were compared concerning patient and graft survival, delayed graft function (DGF) and prevalence of acute rejection (AR).

Results: We included 62 type 2 diabetics and 62 non-diabetic patients who were followed for a mean period of 102 ± 64 months after KT. Diabetic patients and controls were similar for the matched variables.

Clinical and laboratory data of DM 2 vs non-DM transplant recipients after KT

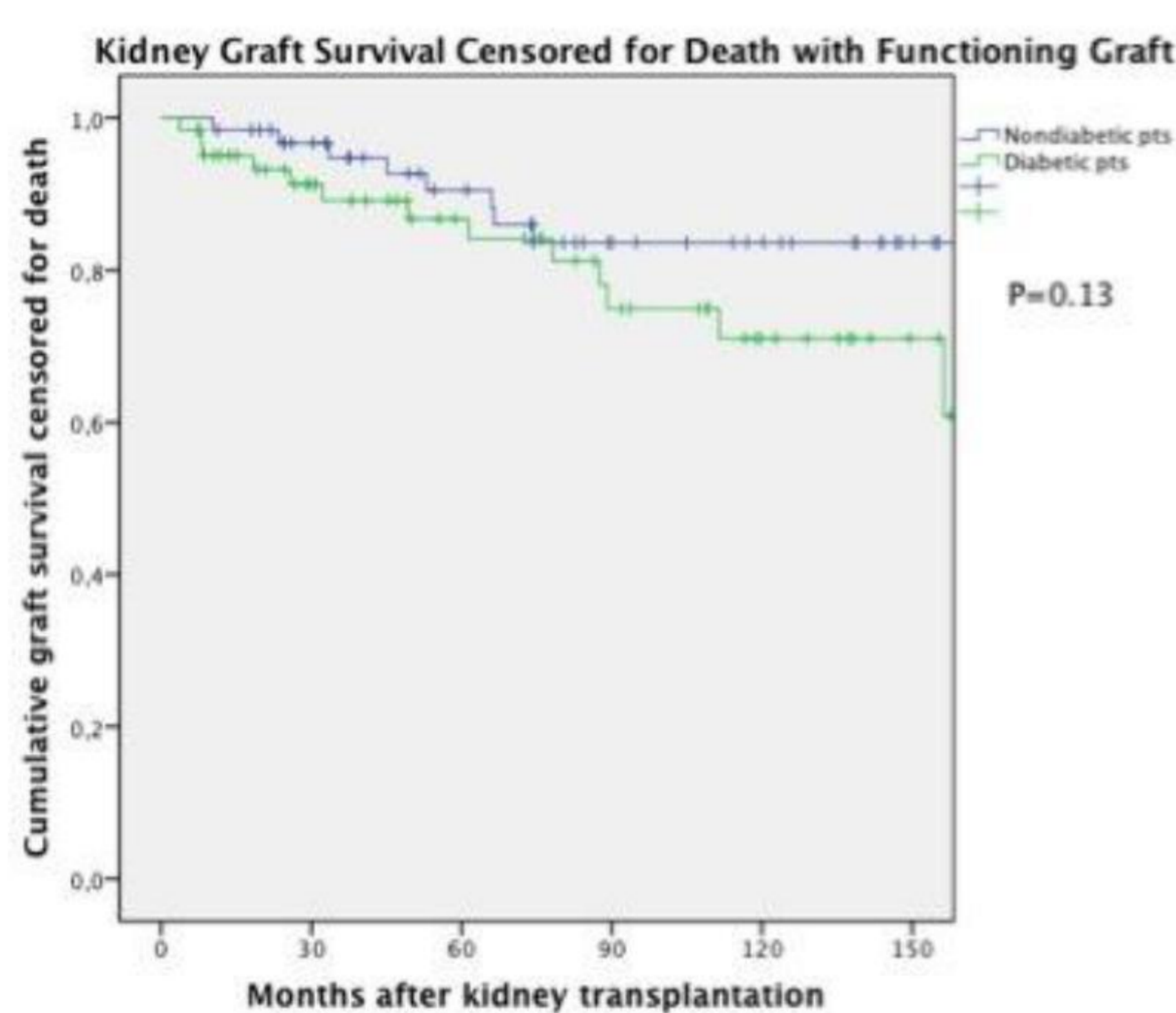
	62 DM 2	62 non-DM	p-value
DGF (n)	23	15	0.119
Creatinine at 6 months (mg/dl)	1.5 (1.1-1.7)	1.4 (1.1-1.6)	0.207
Creatinine at 1 year (mg/dl)	1.3 (1.1-1.7)	1.3 (1.1-1.7)	0.525
HDL Cholesterol at 1 year (mg/dl)	57.13 \pm 12.36	59.07 \pm 14.58	0.662
Total Cholesterol at 1 year (mg/dl)	225.94 \pm 63.28	223.91 \pm 36.46	0.868
Triglycerides at 1 year (mg/dl)	179.5 \pm 87.99	173.58 \pm 104.74	0.788
Uric acid at 1 year (mg/dl)	6.48 \pm 1.92	7.23 \pm 1.64	0.117
Acute rejection (n)	15	11	0.378

DGF - delayed graft function; HDL - high density lipoprotein

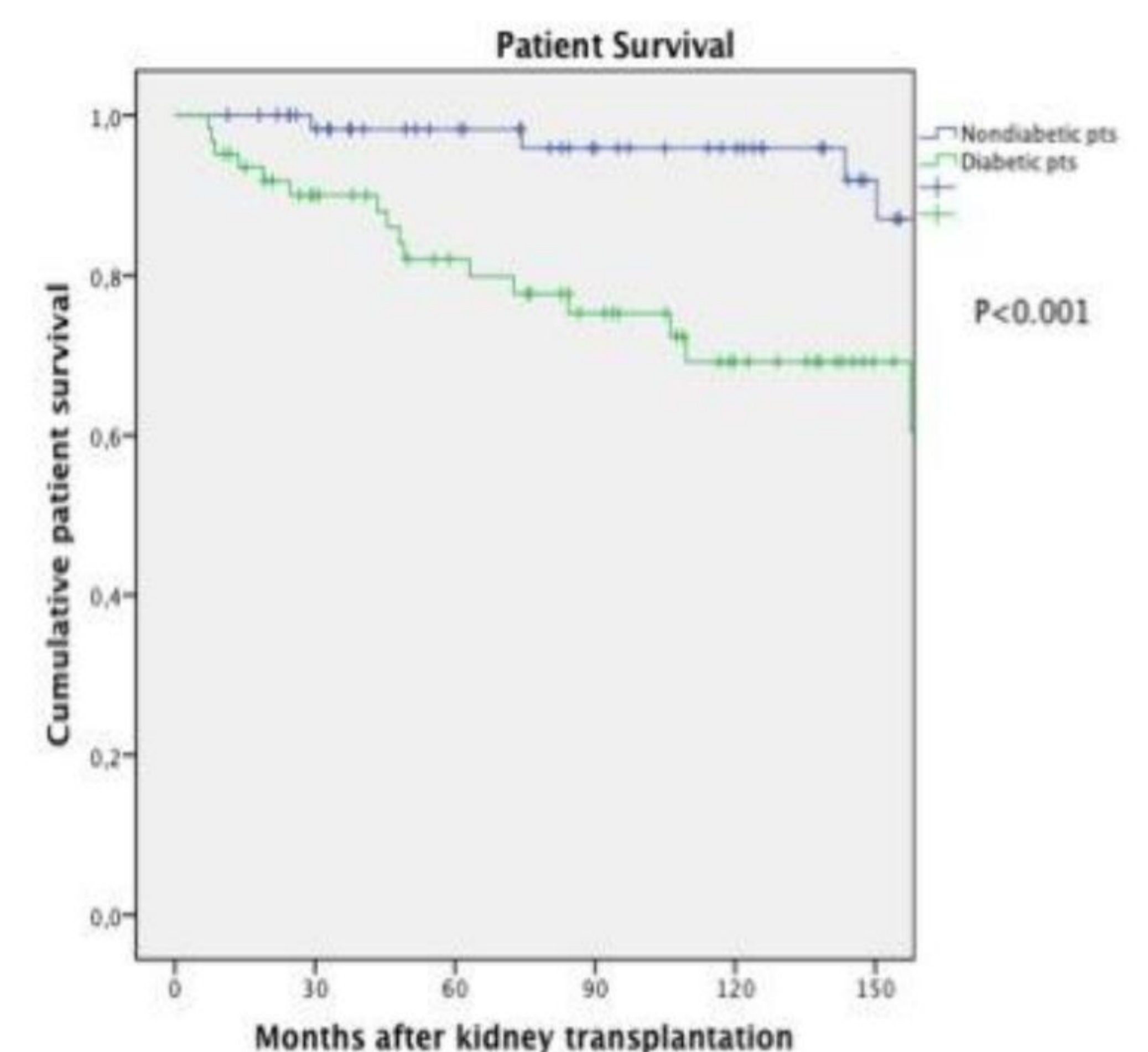
Using multivariate Cox's proportional hazards analysis, DM (HR=7.72; $p=0.001$) and hepatitis (HR=4.18; $p=0.02$) correlated with reduced patient survival.

Model (variables included): presence of diabetes, recipient age and gender, DGF, acute rejection, presence of hepatitis, donor age, duration of pre-transplantation dialysis, number of HLA mismatches, peak PRA, and use of anti-T-cell induction therapy

Kaplan-Meier analysis of censored graft survival.



Kaplan-Meier analysis of patient survival.



Conclusions: Diabetic patients' survival after KT was reduced when compared with non-diabetic matched patients. However, censored graft failure was similar between the two groups. Concerns about graft survival should not prevent KT in diabetic patients with kidney failure.

