LONG-TERM OUTCOMES OF KIDNEY TRANSPLANT RECIPIENTS WITH FSGS

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Introduction: Few data exists analyzing recurrence rates, treatment response and long-term outcomes in kidney transplant recipients (KTR) with primary FSGS.

Methods: This retrospective observational study included 1218 consecutive KTR 2002-2016. All patients with primary idiopathic FSGS were identified applying strict diagnostic criteria. Outcomes were followed over an average of 70.4 months.

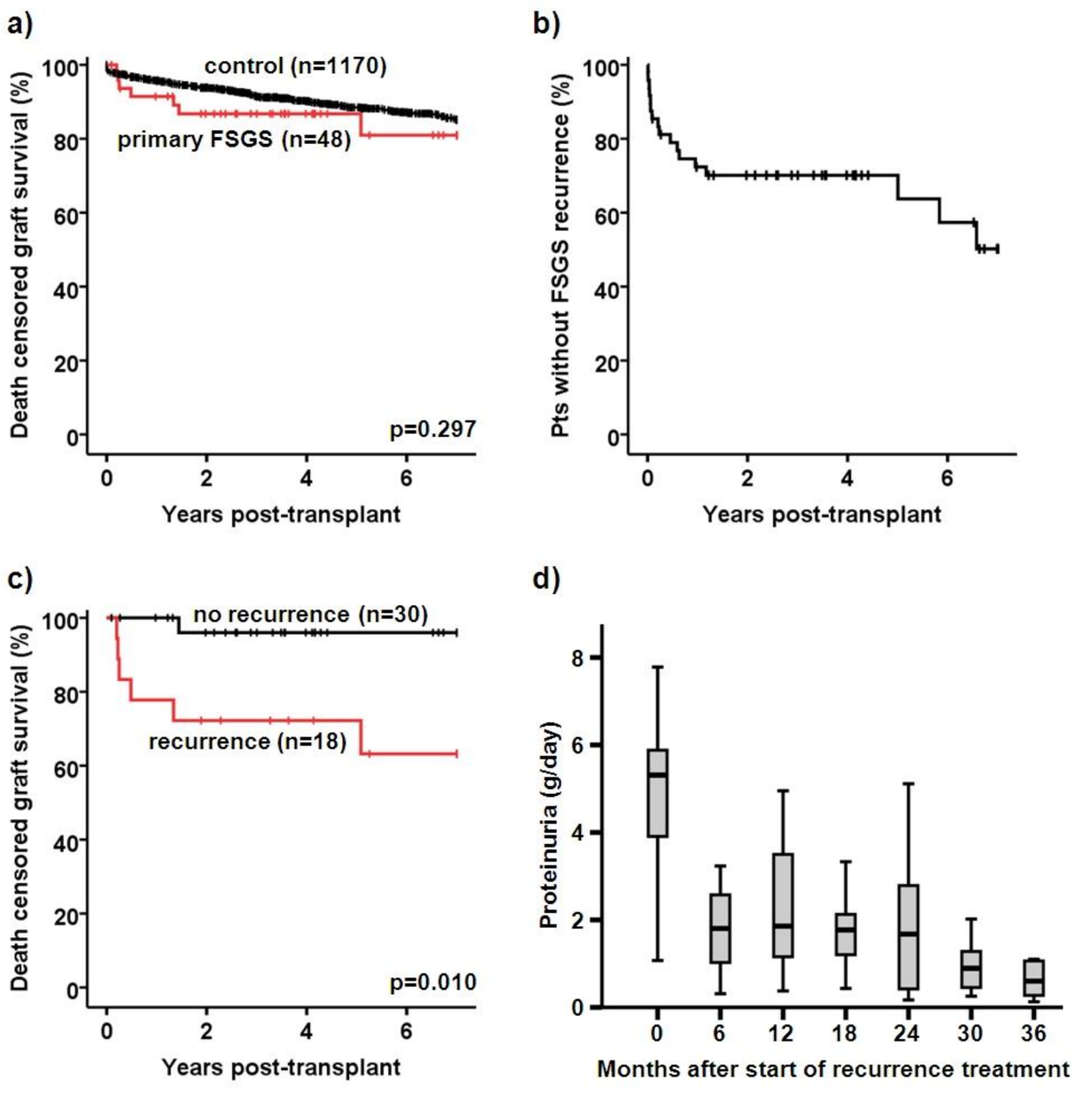
Patient characteristics			
	control n=1170	primary FSGS n=48	p
Mean follow up, years (SD)	5.9 (3.7)	4.5 (2.9)	0.003
Mean age at KTx, years (SD)	50.6 (14.7)	42.6 (14.1)	<0.001
Gender male, n	718 (61%)	29 (60%)	0.895
Previous transplantation, n	134 (12%)	8 (17%)	0.270
Time on dialysis, months (IQR)	54 (24-85)	43 (11-87)	0.248
Living donor, n	350 (30%)	26 (54%)	0.002
Mean donor age, years (SD)	53.1 (14.6)	49.0 (14.0)	0.055
Mean HLA mismatches (SD)	2.7 (1.7)	2.9 (1.6)	0.479
Acute rejection (TCMR), n	224 (19%)	10 (21%)	0.771
Best creatinine, mg/dL (IQR)	1.1 (0.9-1.4)	1.2 (0.9-1.6)	0.341

Results: We identified 48 KTR (3.9%) with primary FSGS. 7-year death-censored graft survival was 81% (primary FSGS) vs. 85% (control), p=0.297 (Fig.1a). Among KTR with primary FSGS, 18 KTR experienced FSGS-recurrence (predicted incidence 50% after 7-years; Fig.1b). 7-year graft survival in KTR with FSGS-recurrence was significantly worse than in FSGS-KTR without recurrence (63% vs. 96%, p=0.010; Fig.1c).

In case of FSGS recurrence a multimodal treatment approach was applied, including: plasma exchange (PE) (100% of patients), cyclosporine i.v. (50%), rituximab (61%) and the “multiple target treatment” according to Canaud (AJT 2009) (39%). The median number of PE-sessions was 27.

Proteinuria decreased significantly and persistently during the course of treatment (Fig.1d). Proteinuria decreased significantly and persistently during the course of treatment (Fig.1d). Complete remission of FSGS was observed in 7 patients (39%), another 7 patients (39%) developed partial remission (PE-dependence observed in 4 patients (22%)). 4 patients (22%) with FSGS recurrence experienced early graft loss (< 6 months post-transplant) despite all treatment efforts.

Figure 1



Conclusions: In KTR with primary FSGS a high proportion of recurrences occurred during the long-term follow-up and led to significantly worse graft survival. However, a multimodal treatment approach mostly resulted in resolving of proteinuria and full or partial remission. Graft survival in KTR with underlying primary FSGS was comparable with the control group.

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