FREQUENCY OF T-CELL MEDIATED REJECTION IN NEW ONSET DIABETES AFTER KIDNEY TRANSPLANTATION

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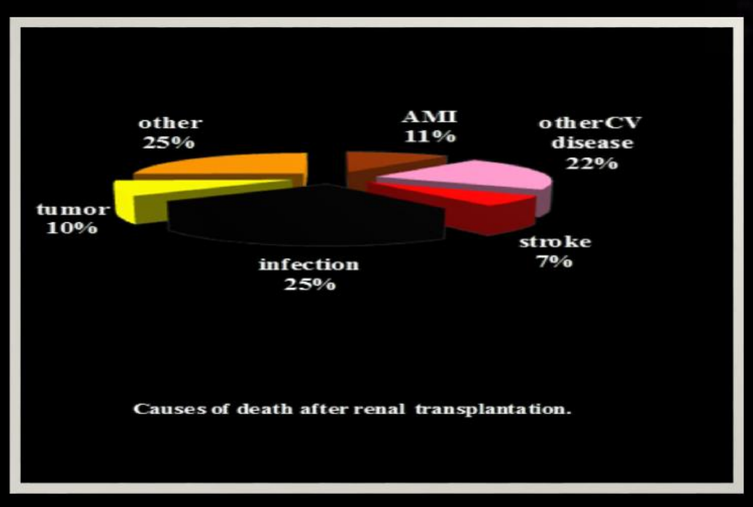
INTRODUCTION

New-onset diabetes after transplantation (NODAT) is one of the most common complications following kidney transplantation. The diagnosis of NODAT is often late or missed; therefore, it impairs the implanted renal allograft. Not only does untreated NODAT negatively influence the allograft, but it increases the risk of cardiovascular diseases and death. NODAT is the same risk factor of cardiovascular diseases as diabetes diagnosed before the transplantation



Causes of death after renal transplantation.

PATIENTS AND METHODS

University of Szeged, Department of Surgery, Hungary (between 2006 and 2013)

Excluded from the study:

- ❑diabetes mellitus before the transplantation
- ❑younger than 18 years
- ❑living donor
- ❑died during the study
- ❑"0 " biopsy was not normal

Randomised
- CsA n = 95
- Tac n = 102

morphology:
2007 modification of the Banff classification

Normal
Antibady mediated changes
Borderline changes
T-cell mediated rejection
Intersitial fibrosis/tubular athrophy
Other

function:
- se. creatinine (µmol/L)
- eGFR- CKD-EPI formula (mL/min/1.73m2)

1 year after kidney transplantation

OGTT (75g glucose, 120. min ≥ 11.1 mmol/L)

- ✓ N – normal
- ✓ IFG/IGT – increased fasting glucose/impaired glucose tolerance
- ✓ NODAT – new - onset after kidney transplantation

RESULTS

	T-cell mediated rejection	IF/TA (grade II and III)	Borderline changes	Antibady mediated changes	other	normal
NODAT (n = 14)	**13 (37%)**	7 (20%)	2 (5%)	3 (9%)	1 (2%)	9 (27%)
IFG/IGT (n = 26)	6 (16%)	3 (8%)	4 (12%)	4 (12%)	2 (5%)	17 (47%)
N (n = 29)	8 (6%)	6 (5%)	11 (9%)	5 (4%)	9 (7%)	87 (69%)
P value (N vs. NODAT)	**0.0001**	0.367	0.143	0.734	0.126	

	CsA (n = 95)	Tac (n = 102)	n = (197)
NODAT	11 (12%)	24 (24%)	35 (17%)
IFG/IGT	17 (18%)	19 (18%)	36 (18%)
N	67 (70%)	59 (58%)	126 (65%)

* **NODAT, CsA vs Tac p = 0.021**

	NODAT	IFG/IGT	N	P value
eGFR (mL/min/1.73m2)	37.7±13.1	39.51±16.24	40.73±13.06	0.583
se. creatinine (µmol/L)	188.5±58.7	186.50±62.70	184.69±122.60	0.236

CONCLUSIONS

Diabetes not diagnosed and treated in time not only damages the graft but increases the cardiovascular risk as well. In case of kidney recipients, long term survival of the graft may be increased, and the cardiovascular risk may be decreased with diagnosing and treating NODAT in time.

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