

# RENAL TRANSPLANTATION IN ELDERLY PATIENTS - POLISH MULTICENTRE STUDY

Alicja Dębska-Ślizień<sup>1</sup>, Magdalena Jankowska<sup>1</sup>, Maciej Słupski<sup>2</sup>, Jolanta Małyszko<sup>3</sup>, Jacek Małyszko<sup>3</sup>, Andrzej Adamowicz<sup>2</sup>, Grażyna Kobus<sup>3</sup>, Monika Żurawska<sup>1</sup>, Zbigniew Włodarczyk<sup>2</sup>, Michał Myśliwiec<sup>3</sup>, Bolesław Rutkowski<sup>1</sup>

Department of Nephrology, Transplantology and Internal Medicine, Medical University of Gdańsk<sup>1</sup>, Poland

Department of Transplantology and General Surgery CMUMK Bydgoszcz<sup>2</sup>, Poland

Department of Nephrology, Transplantology Medical University Białystok<sup>3</sup>, Poland

## Objectives:

The elderly are the fastest growing population among dialysis patients and also on waiting lists for renal transplantation (RT). The objective for this study was to analyze the results of RT in recipients elder than 60 years and their younger pairs receiving graft from the same donor.

## Methods:

The older renal transplantation (ORT) group included 164 (102m, 62f) patients aged from 60 to 81 (mean 65 ± 4) years. Their pairs created a younger renal transplantation (YRT) group consisting of 164 (104m, 60f) patients aged from 14 to 59 (mean 45 ± 12) years. Inclusion criteria: All individuals receiving a renal graft in a given transplantation centre provided the recipient had been at least of 60 years of age and had a pair constituted by a younger recipient from the same donor AND : If the pair of the recipients were under the supervision of the participating centre for at least 12 months after the transplantation procedure or until the end point occurrence before 12 month of the observation.

End points: Recipient death in the first year after the transplantation; Loss of a graft function in the first year after the transplantation  
Secondary end points: Acute rejection (AR); Delayed graft function (DGF); Creatinine and eGFR in the 3, 6, and 12 month after the transplantation; Hospitalization in the first year after the transplantation; Surgical complications first year after the transplantation; Cardio-vascular complications first year after the transplantation; CMV infection; New onset diabetes mellitus (NODAT).

ORT had significantly longer duration of renal replacement therapy (RRT), more ORT suffered from coronary heart disease and diabetes, but RRT modality and initial immunosuppressive therapy were comparable in both groups.

## Results:

Groups did not differ significantly with respect to: graft function estimated one year after transplantation (CKD-EPI) (50.7 ml/min vs 54.0 ml/min), but the decline in eGRF was significantly faster in YRT (p<0.01). One year patient survival, one-year graft survival, one-year death- censored graft survival, the incidences of delayed graft function and acute rejection were similar in ORT and YRT (Table 1). During the observation period patient, graft and death –censored graft survivals were comparable. The most common cause of death during first year after RT was infection and cardiovascular events (in following years neoplasia). Significantly more cardiovascular complications and NODAT were noticed in ORT (p<0.01) (Table 2).

Table 1. Deaths, deaths in the first year of observation, deaths with functioning graft and loss of graft function n = 328; 164 pairs

	All	ORT	YTR	p
Death	41(12.5%)	29 (17.7%)	12 (7.3%)	<b>0.0122</b>
Death with functioning graft	26 (7.9%)	19(11.6%)	7 (4.3%)	<b>0.0234</b>
Death in the first year	15 (4.6%)	10 (6.1%)	5 (3.0%)	0.2067
Death in the first year with functioning graft	11 (3.4%)	6 (3.7%)	5 (3.0%)	0.9921
Graft loss	81(24.7%)	36 (22%)	45 (27.4%)	0.3704
Graft loss in the first year	45(13.7%)	16 (9.6%)	29 (17.7%)	0.0690

Table 2. Secondary end-points n = 328; 164 pairs

	All	ORT	YRT	p
AR	106 (32.3%)	60 (36.6%)	46 (28.0%)	0.2369
DGF	126 (38.4%)	62 (37.8%)	64 (39%)	0.8796
Surgical complications	121 (36.9%)	63 (38.4%)	58 (35.4%)	0.6976
Cardio-vascular complications	64 (16.5%)	37 (22.6%)	17 (18.9%)	<b>0.0116</b>
Hospitalizations	212 (64.6%)	111 (67.7%)	101 (61.6%)	0.5924
NODAT	78 (23.8%)	52 (31.7%)	26 (15.8%)	<b>0.0080</b>
Infection CMV	71 (21.6%)	41 (25%)	30 (18.3%)	0.2364

## Conclusions:

Our multi-centre results confirm that renal transplantation is a good option of RRT in patients older than 60 years.