

# OLD DONORS: WHICH CHARACTERISTICS ARE PREDICTIVE OF KIDNEYS DISCARDING? ANALYSIS OF A SINGLE CENTRE EXPERIENCE

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## OBJECTIVES

A discrete amount of kidneys are discarded because considerate not suitable for transplantation after being harvested from deceased donors. We studied whether any characteristic of the donor known prior to organ harvesting can predict whether kidneys can be transplanted or not.

## METHODS

We evaluated retrospectively data of deceased donors of our region between January 2012 and November 2013. Of a total of 207 donors, 134(65%) were transplanted and 73 (35%) no. Kidneys were discarded mainly for a Karpinski histological score >6 that contraindicated transplantation (63% of discarded ones), donor's malignancies (9.6%) and macroscopic abnormalities (6.8%). Since 94% of the discarded kidneys were harvested from elderly donors, we selected donors older than 60 years (126 cases) and compared 60 whose kidneys were transplanted (group A) with 66 harvested and discarded (group B). The parameters that we compared were demographic characteristics, renal function, ultrasound evaluation of the kidney and presence of comorbidities between those whose kidneys were transplanted with those whose kidneys were harvested and then discarded.

## Graphs and tables

tab 1. Main differences between discarded and transplanted kidneys.

parameter	transplanted kidneys (n:60)	harvested and discarded kidneys (n:66)	p value
age (years)	71 (61-85)	74 (62-87)	0.022
donor male sex	41%	58%	0.2
initial serum creatinine (mg/dl)	0.7 ± 0.2	0.9 ± 0.2	0.112
initial blood urea (mg/dl)	32.5 (13-107)	37.5 (21-72)	0.281
initial eGFR (Cockcroft-Gault) ml/min	81 (39-167)	74(44-169)	0.384
final serum creatinine (mg/dl)	0.7 (0.4-2.1)	0.9 (0.4-2.8)	0.028
final blood urea (mg/dl)	35.5 (17-125)	37.5- (22-85)	0.454
final eGFR (Cockcroft-Gault) (ml/min)	73 (39-155)	68 (24-117)	0.95
proteinuria (mg/dl)	5 (0-70)	0 (0-70)	0.50
kidney longitudinal dimension (mm)(measured by ultrasound)	105 ± 12.2	101.8 ± 22.1	0.202
cause of death:			
cerebrovascular	86%	87%	0.60
trauma	12%	13%	
other	2%	0%	
renal cysts	31%	39%	0.226
history of blood hypertension	46%	74%	0.002
history of diabetes	10%	12%	0.7
smoking history	18%	28%	0.16
use of statin	11%	24%	0.09

## RESULTS

As shown in table 1, age (71 vs 74 years, p: 0.002), serum creatinine at the time of organ harvesting (0.7 vs 0.9 mg/dl, p: 0.028), a history of blood hypertension (49% vs 76%, p: 0.003) respectively for group A and B were significantly different between the two groups. We observed no difference between the 2 groups in terms of blood urea, eGFR, kidney dimension measured by ultrasound, presence of other comorbidities except for arterial hypertension.

## CONCLUSIONS

In our study, older donor, a higher serum creatinine and a history of hypertension evaluated prior to organ harvesting were associated with a higher number of kidneys discarded after been harvested. Larger studies could address this issue in a more detailed way.

## REFERENCES:

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