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MEETING ABSTRACT Open Access

Use of elder donors for cadaveric single kidney transplantation: a new evolution or an inacceptable risk?

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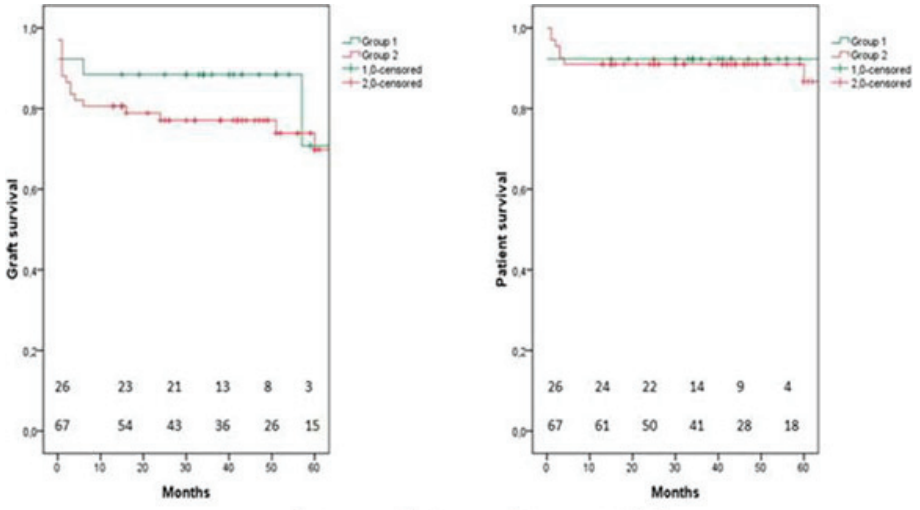
Background

Organ shortage and long waiting times represent relevant issues in modern kidney transplantation [1]. Expansion of the donor pool using Extended Criteria Donors (ECD) represents a way to partially resolve these limits. ECDs are defined by UNOS as ≥ 60-year aged donors or



	1-year	3-year	5-year	p-value*
Patient survival				
Group 1	92.3	92.3	92.3	0.79
Group 2	91.0	91.0	86.7	
Graft survival				
Group 1	88.5	88.5	70.8	0.38
Group 2	80.6	77.1	69.8	

*evaluated with the log-rank test

Figure 1 Graft and patient survivals in the 2 groups

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50-59-year aged donors with at least 2 of 3 risk factors (pre-procurement serum creatinine >1.4 mg/dl, cerebrovascular accident and history of hypertension) [2]. However, use of ECD seems to be related to worse results in terms of graft function and survival [3]. Moreover, no data exist with regard to comparison between over-60 and 50-59-year aged donors. The aim of this study is to analyze the cohort of ECD transplants performed in our Department, evaluating the role of donor age on results.

Materials and methods

From January 2004 to May 2009, 95 single kidney transplantations using ECDs were performed. The entire cohort was stratified in 2 groups: Group A (50-59 years, n=26) and Group B (≥ 60 years, n=69). Donor, recipient and transplant characteristics were compared using the chi-squared and the Mann-Whitney test. Patient and graft survival were analyzed by the Kaplan-Meier method and compared using the log-rank test.

Results

Group A presented younger donors (55 *vs* 67 years) and recipients (53 *vs* 58 years), a higher number of donors with previous history of hypertension (92% *vs* 43%) and higher pre-harvesting creatinine values (1.2 *vs* 0.9 mg/dL). Post-transplant graft function did not present statistical differences. Five-year patient and graft survivals results were similar (Fig. 1).

Conclusions

Use of ECD seems to be safe, even using very elderly donors. In our experience, biopsy-driven seection is exclusively performed in over-60 donors. Starting from this consideration, we could speculate that the use of biopsy in over-60 donors allows "bad donors" to be excluded obtaining similar survival rates with respect to younger donors. Systematic use of biopsy in 50-59-year donors with risk factors could further improve outcomes.

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