









# RECIPIENT OVER 65



## Renal Transplantation in Recipients Older Than 65 Years: Retrospective Analysis of the Results of a 4-year (2008–2012) Experience

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### ABSTRACT

**Background.** We analyze the results of renal transplantation among recipients older than 65 years old over a 4-year period (2008–2012) from a single renal transplantation unit and compare results with younger recipients.

**Methods.** We retrospectively analyzed the outcomes of 2018 renal transplantations performed between November 2008 and December 2012. The  $\chi^2$  test was used for the comparison of categorical data, and the Student *t* test was used for the analysis of continuous variables. Patient and graft cumulative actuarial survivals were calculated using the Kaplan-Meier analysis and we tested for differences with the Mantel-Cox log-rank test.

**Results.** Seventy-five (3.7%) recipients were aged  $\geq 65$  years with a median age of 68 (range, 65 to 82) years. Actuarial graft survivals at 1, 2, and 3 years were 93.8%, 92.5%, and 90.3%, respectively, for the  $<65$  group and 89.7%, 88.1%, and 83.1%, respectively, for the  $\geq 65$  group ( $P < .03$ ). Actuarial patient survivals at 1, 2, and 3 years were 96.3%, 95.5%, and 94.7%, respectively, for the younger and 91.8%, 90.2%, and 88%, respectively, for the older samples ( $P < .03$ ). When graft survival was censored for patient death with a functioning kidney at 1, 2, and 3 years, the results were similar between groups with 95.5%, 94%, and 92.8%, respectively, for recipients aged  $<65$  years and 94.7%, 89.2%, and 89.2%, respectively, for recipients aged  $\geq 65$  years ( $P = .213$ ).

**Conclusions.** Our results showed that renal transplantation in selected patients older than 65 years was associated with good outcomes; this indicates that it seems safe and effective to treat end-stage renal disease in the elderly knowing there are acceptable rates of graft and patient survival.

# ABO-INCOMPATIBLE



## ABO-Incompatible Kidney Transplantation: First Cases in Turkey

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### ABSTRACT

**Introduction.** ABO compatibility has been believed to be necessary in kidney transplantation (Ktx) to prevent acute antibody-mediated rejection. However, developments in immunosuppression and immunoadsorption techniques have overcome acute antibody-mediated rejection caused by ABO incompatibility. Herein, we have presented the first ABO-incompatible Ktx cases in Turkey. All recipients did not have an ABO-compatible donor but presented significant dialysis inadequacy due to vascular access problems.

**Method.** Five dialysis patients with blood groups O or B underwent kidney transplantation from living related donors of blood group type A1 or AB between March 23, 2007 and August 16, 2007. All patients received Rituximab ( $375 \text{ mg/m}^2$ ) at 3–4 weeks before the Ktx. Additionally, we started tacrolimus ( $0.15 \text{ mg/kg}$ ), mycophenolate mofetil ( $2 \times 1 \text{ g}$ ), and simvastatin ( $1 \times 20 \text{ mg}$ ) 1 week before the operation. Immunoadsorption therapy employing a specific filter (Glycosorbs) to remove anti-A or anti-B antibodies was continued until the titers were  $<1/4$ . After the Ktx, we again performed immunoadsorption if the anti-A or the anti-B antibody titer was  $>1/8$  during the first postoperative week and  $>1/16$  at the second postoperative week. We used 2 standard hemodialysis machines with a connection line to perform immunoabsorption and dialysis during the same session.

**Results.** Acute humoral and cellular rejection was not detected. During the follow-up 1 patient was lost due to a cardiovascular complication. Mean creatinine level was  $1.1 \pm 0.3 \text{ mg/dL}$ . These first ABO-incompatible transplantation cases in Turkey suggest that this source may represent an effective approach to overcome the organ shortage.

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## Kidney Transplantation From Elderly Donor

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### ABSTRACT

**Aim.** In recent years, there has been an increase in usage of grafts from advanced-age donors because of the shortage of organ availability. Acceptance of elderly living-kidney donors remains controversial due to the higher incidence of comorbidity and greater risk of postoperative complications. The objective of this study was to evaluate the graft function and patient survival using kidneys from living-related and unrelated donors who were older than 65 years of age.

**Materials and Methods.** From December 2008 until December 2013 we compared the outcomes of 294 patients (mean age,  $47.67 \pm 12.4$  years; range, 16 to 74 years old) who received grafts from donors  $\geq 65$  years old to 2339 patients who received grafts from donors who were younger than 65 years old.

**Results.** We observed no significant differences in sex, time on dialysis, or cold ischemia time between the groups. The recipient ages between two groups were similar. For survival analysis we used the Kaplan-Meier survival estimator. Patient survival at 1, 2, and 3 years was 91.1%, 89.1%, and 88.5%, respectively, for patients transplanted with kidneys from donors  $\geq 65$ -years-old vs 96.7%, 95.9%, and 95.0%, respectively, in the  $<65$ -year-old donor group. Multivariate analysis showed the variables associated with patient survival to be donor age at time of transplantation in years (hazard ratio [HR], 1.65; 95% confidence interval [CI], 1.59–1.71;  $P < .05$ ), time on dialysis in months (HR, 1.22; 95% CI, 1.21–1.23;  $P = .002$ ). Graft survival rates at 1, 2, and 3 years censored for death with functional graft at was 97.6%, 96.4%, and 94.1%, respectively, for patients transplanted with kidneys from donors older than 65 years vs 97.5%, 96.8%, and 95.2%, respectively, in the  $<65$ -year-old donor group. Multivariate analysis, HLA-DR mismatches (HR, 1.23; 95% CI, 1.12–1.55;  $P = .050$ ), delayed graft function (HR, 1.77; 95% CI, 1.53–2.07;  $P = .021$ ), and perhaps acute rejection (HR 1.14; 95% CI, 0.82–1.95;  $P = .093$ ) were the variables associated with graft survival.

**Conclusion.** We concluded that the use of kidneys from donors older than 65 years of age allows us to increase the rate of renal transplantation to approximately 15 to 20 per million population, with good graft and patient survivals provided that the protocol for expanded criteria organs ensured proper macroscopic and microscopic evaluation of the organ for transplantation.

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# INTERNATIONAL PAIRED EXCHANGE



## First International Paired Exchange Kidney Transplantations of Turkey

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### ABSTRACT

**Objective.** We estimated that many patients on the waiting list for kidney transplantation in Turkey have immunologically incompatible suitable living donors. Paired exchange kidney transplantation (PETx) is superior to desensitization for patients with incompatible donors. Recently we decided to begin an international PETx program.

**Methods.** We report three international living related paired kidney transplantations which occurred between May 14, 2013, and March 7, 2014. The international donor and recipient operations were performed at Medical Park Hospital, Antalya, Turkey. All pairs were living related and written proofs were obtained according to Turkish laws. As with the donor procedures, the transplantation procedures were performed at the same time.

**Results.** The uniqueness of these transplantations was that they are the first international exchange kidney transplantations between Turkey and Kirghizia. Currently all recipients are alive with well-functioning grafts.

**Conclusion.** In our institute, a 5% increase was obtained in living-related kidney transplantations by the help of PETx on a national basis. We believe that international PETx may also have the potential to expand the donor pool.

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