

## “Very Urgent” Kidney Transplantation: Results From One Center

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**K**IDNEY TRANSPLANTATION (KT) is sometimes the only option for the treatment of patients with chronic renal failure. In these circumstances, it is performed in “very urgent” conditions in recipients, usually with several risk factors for KT. These procedures are associated with a lower degree of recipient/graft compatibility. To our knowledge, there are few studies published about this circumstance.

### PATIENTS AND METHODS

We performed a retrospective analysis of the kidney transplants performed at our center under “very urgent” conditions.

### RESULTS

Between 1983 and 2001, a total of 1108 KTs were performed at our center. The overall patient and kidney graft survivals were 96.1% and 88.4% at 1 year; 89.9% and 77.6% at 5 years; 78.2% and 58.5% at 10 years, respectively. We studied 19 patients (pts) who underwent “very urgent” KT including 14 women (mean age =  $45.3 \pm 13.1$  years at date of transplantation). All grafts were from cadaveric donors, four were second KTs, with a mean time of dialysis being  $5.9 \pm 3.7$  years. The reasons for including these pts in a “very urgent” waiting list for KT included exhaustion of vascular accesses and impossibility of peritoneal dialysis (15 pts); high sensitization with a panel reactive antigen (PRA)  $>80\%$  (3 pts); and refusal of dialytic treatment (1 pt).

Excluding the hypersensitized patients, the mean time in the waiting list under “very urgent” conditions was  $52.0 \pm 36.9$  days. Associated co-morbidity factors were ischemic heart disease 21%; cerebrovascular disease 5.2%; diabetes 21%; morbid obesity 21%. Seven pts had 1 HLA-A or -B match; 2 pts had 2 HLA-A or -B match; 6 pts had 1 HLA-DR match. The PRA was higher than 30% in 52.6% of the pts, and in 20% of these the PRA was  $>80\%$ . Seven pts (36.8%) had multiple blood transfusions. The immunosuppressive protocol was double (Cyclosporine [CyA]; prednisone), or triple (CyA, prednisone, azathioprine/MMF) immunosuppression plus ATG in 63% of the pts, triple immunosuppression with anti-CD25 in 15%; and double or triple without antilymphocyte antibodies in 21%. In addition, 63.2% had delayed graft function; two-thirds due to acute tubular necrosis, one-third due to vascular causes.

Acute rejection episodes were seen in 36.8% of pts,

leading to transplantectomy in 15.8%. Nine pts (47.4%) died, four with a functioning kidney. In another 4 pts the death was related to the KT. Causes of death were cardiovascular in 4 pts; hemorrhagic shock, 2 pts; sepsis, 1 pt; calciphylaxis, 1 pt; and hypercalcemia, 1 pt.

Excluding graft loss due to the death of the recipient (4 pts), 9 other grafts were lost due to immediate vascular or immunologic causes, 21%; cardiovascular, 10.5%; late acute rejection, 5.2%; chronic rejection, 5.2%; infection, 5.2%. Six pts (31.6%) remain alive with a functioning graft. The mean follow-up of these pts is  $1000 \pm 129$  days (2 to 4222 days).

### DISCUSSION

Accepted criteria for “very urgent” KT for a dialysis patient are intractable vascular access failure in the setting of failed peritoneal dialysis or a highly sensitized patient. This type of transplantation is associated with a higher risk of rejection and graft loss, particularly among the group of highly sensitized patients. In a report from NEOB, the 1-year graft survival was 85% for patients with a PRA between 0% and 49%, and 76% for patients with PRA greater than 90%.<sup>1</sup> Approaches to treating these patients, including delivery of more aggressive immunosuppressive therapy by administration of ATG, have offered substantial benefit.<sup>2</sup> Patients with exhaustion of vascular accesses for dialysis usually have associated co-morbidity problems and a higher risk of cardiovascular and thrombotic events, sometimes due to the presence of a hypercoagulable state.

Finally, “very urgent” kidney transplantation is associated with high morbidity and mortality rates that are, acceptable only in the absence of other treatment options. Inclusion in the “very urgent” waiting list must obey very narrow criteria and judicious selection.

### REFERENCES

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