

TITLE: A program of Pre -Emptive Kidney Retransplantation from Deceased Donors

There is limited experience in pre-emptive repeat transplantations, and none from deceased donors.

This study aims to assess the results of a pre-emptive retransplantation program with brain-dead deceased donors .

Disclosure

Lectures for Chiesi, Sandoz, Sanofi ,
Nordes and Astellas.

Material and methods I

We designed a retrospective matched cohort study, including 36 recipients in the pre-dialysis group and 36 controls who were already on dialysis, matched for donor age and transplant date, which could not differ by more than 7 days between pairs

The variables used to standardize the cohorts were donor and recipient age and sex, blood group, duration of the first graft, time on the waitlist to receive the second graft, cold ischemia time, induction and maintenance of immunosuppression and HLA antibodies prior to retransplantation.

The efficacy variables were early graft loss, acute rejection, delay in graft function, renal function at the end of follow-up, survival time, and recipient and graft survival at 24 and 48 months' follow-up

Results

The pre-dialysis group presented a significantly shorter waitlist time ,lower immunization status, and a significantly longer duration of the first graft than the control group.(Table 1)

The percentage of recipients who presented early graft loss, delayed renal function,or acute rejection was similar between groups.No significant differences were observed in kidney function and recipient or graft survivals .(Table2)

Table 1: Variables used to standardize the cohorts.

Number recipients	Diálisys:36	Pre Dialisys:36	p
Age Donor age (years)	53.0 (49.0-57.5)	57.6 (53.5-61.8)	0.122
Gender (donor)m/w	21/15 (58,3/41.7%)	25/11 (69.3/30.7%)	0.635
Recipient age (2 transplant)(years)	52.3(48.4-56.1)	58.2 (54.3-62.1)	0.037
Gender (recipients) m/w	21/15 (58.3/41.7%)	20/16 (55.5/44.5%)	0.267
Blood group			0.6604
● A	16 (43.3%)	18 (50.0%)	
● B	1 (3.3%)	1 (3.3%)	
● AB	0 (0.0%)	3 (8.3%)	
● O	19 (53.4%)	14 (39.4%)	
First graft survival (months)	88.6.0 (1.0-145.5)	138.5 (80.3-173.5)	0.047
Waiting list time (months)	5.0 (2.8-11.5)	2.0 (0.88-4.0)	0.002
Cold ischemia (hours)	17.0 (15.0-21.0)	16.5 (13.8-18.3)	0.309
Follow up period (months)	32.0 (14.8-45.8)	29.5 (15.0-47.8)	0.767
HLA antibodies			
● class I Positive	16 (44.4%)	11 (30.6%)	0.330
● class II Positive	13 (36.1%)	14(36.1%)	1.000
● class I o II Positive	18 (50.0%)	14 (38.9%)	0.477
Mismatch HLA			1.000
● 0-3	9 (25.0%)	8 (22.2%)	
● 4-6	27 (75.0%)	28 (77.8%)	
Rituximab	12 (33.3%)	5 (13.9%)	0.099
Timoglobulin	35 (97.2%)	32 (88.9%)	0.353
Tacrolimus	36 (100%)	34 (94.4%)	0.472
m-TOR	23 (63.9%)	26 (72.2%)	0.613
Micofenolato	13(36.1%)	10 (27.7%)	0.791

Table 2 :The efficacy variables

	Dialysis	Predialysis	p
Early lost (before 48h)	2 (5.6%)	0 (0.0%)	0.473
Delayed renal function(dialysis needed)	5 (16.7%)	1 (3.3%)	0.195
Acute rejection (Histological study)	2 (5.6%)	3 (8.3%)	1.000
Final Serum creatinine (mg/dl) median	1.50 (1.20-2.20)	1.50 (1.2-2.2)	0.950
Final CKD Epi (ml/mn)	43.9 (17.7-78.8)	44.2 (13.8- 90.0)	0.963
albumina/creatinina relationship (mg/g)median	37.0 (13-87)	80 (21-204)	0.190
Mean recipient survival time (IC95%) months,	97 (69-124)	131 (94-168)	0.707
Mean graft survival time (IC95%) months,	74 (47-102)	131 (94-168)	0.052

Conclusion

- Retransplantation yields good outcomes in patients with terminal chronic dysfunction, helping to avoid dialysis, shortening the time spent on the waitlist, reducing the risk of producing antibodies, and resolving the dilemma of whether or not to stop immunosuppression.