

Paired kidney donation transplant - a 10 year experience from a single centre in northern India

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Introduction

Paired exchange kidney donation has become an important tool for overcoming the barriers faced by the patients with end-stage renal disease where the living potential donors who are willing to donate to them are found to be unsuitable as donors for them due to an incompatibility of blood type, of HLA cross-match, or of both.

Financial disclosure

There are no financial conflicts of interest to disclose.

Methods and materials

- Paired exchange kidney transplant done between in 2014 to march 2024 were taken, a total number of 127 recipients included.
- their baseline characteristics were analysed,
- cause of end stage renal disease,
- reason for swap transplant,
- follow up after renal transplant along with donor characteristics

Results

Donor Characteristics

Donor Relationship with Patient

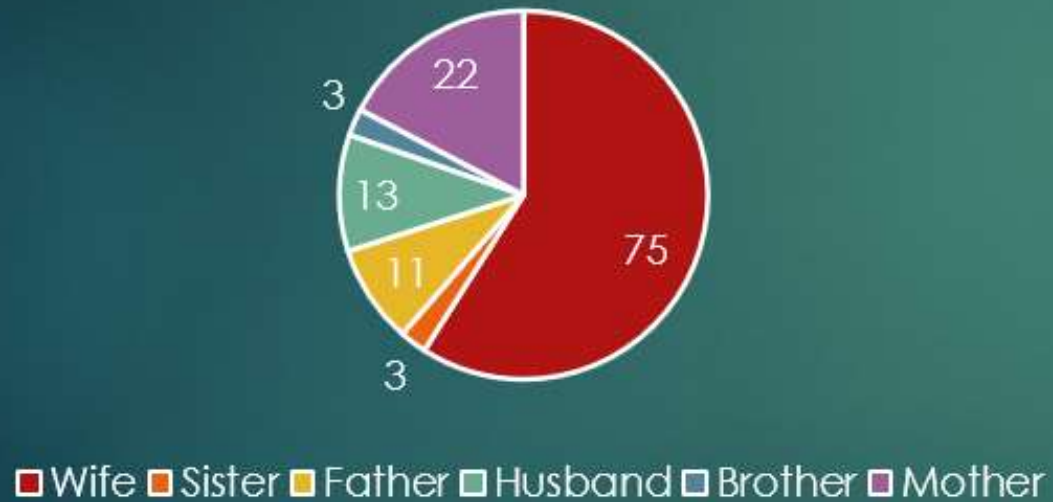


Figure 1

Table 1 Donor Characters

Donor Characters		
Average Age		47 years
Gender	Male	20%
	Female	80%
Average BMI		22.76 kg/m ²
Hypertension		11%
Pre-diabetic		7%

Recipient Characteristics

Native kidney disease

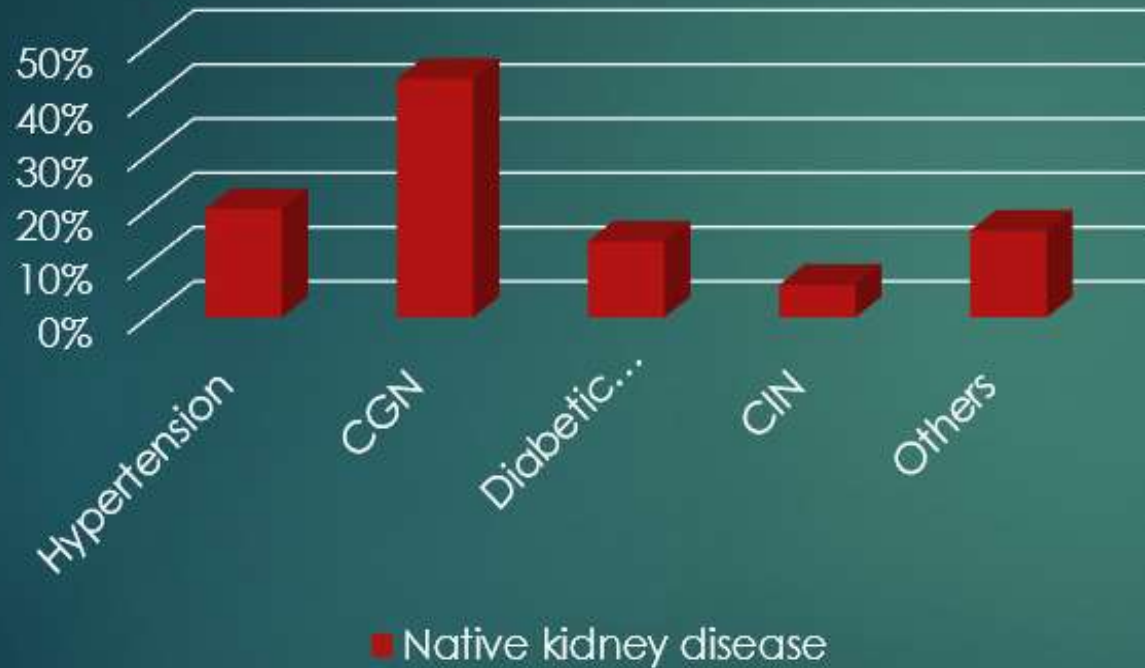


Figure 2

Table 2 Recipient Characters

Recipient Characters		
Average Age		40 years
Gender	Male	81%
	Female	19%
Average BMI		21.56 kg/m ²
AbO Incompatible		93.7%
Hla Sensitization		6.3%

Average waiting time for getting match after enrolment in matching program – 1 month

Average waiting time for getting legal permission – 1 month

Initial Immunosuppression used was triple drug therapy in all cases- Mycophenolate mofetil, tacrolimus and steroids

Induction agent used was thymoglobulin (ATG) in all cases – at dose of 2.5-3 mg/kg

Creatinine

1 mg/dl

• At discharge

1.4 mg/dl

• At 1 year follow up

1.5 mg/dl

• At 3 year follow up

Table 3 Post Transplant Infections

Post Transplant Infections	Cases (n=127)
Pneumocystis	2 (1.57%)
Pneumonia (other causes)	10 (7.87%)
Covid- 19	8 (6.29%)
Mucormycosis	4 (3.14%)
Tuberculosis	6 (4.72%)
B K virus	1 (0.78%)
Urinary tract infection	7 (5.51%)

Table 4 Rejection

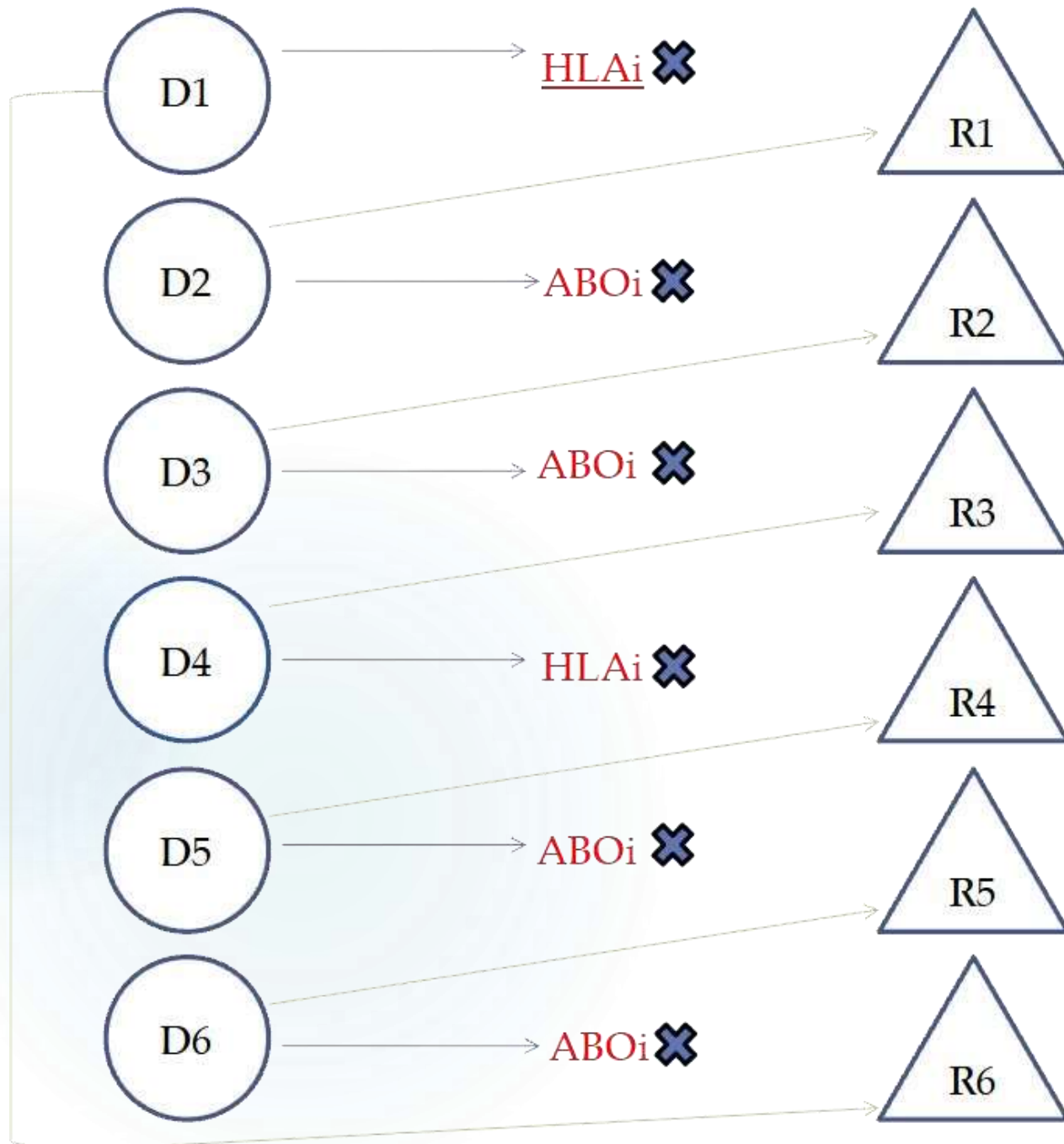
Rejection	Cases (n=127)
Acute T cell mediated	0
Acute B cell mediated	2 (1.57%)
Chronic B cell mediated	5 (3.93%)

3(2.36 %)

Lost to follow up

5(3.93%)

Patient death



6 way single day swap transplant
done at our institute (First in a
Private sector in India)

Conclusion

Paired kidney donation transplantation has become an important viable procedure medically and economically to fulfil the ever increasing demand for renal donor for transplant. An excellent graft outcome is shown in our study which supports paired kidney donation transplantation, as in turn it can be promoted to intercity, regional and subsequently national transplant centre with high number of incompatible related donor and low deceased donor transplant program.