

TREATMENT OF HIGH PLASMA VOLUMES USING SPECIFIC IMMUNOADSORPTION FOR ABO INCOMPATIBILITY



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Background

The evolution of 2010 bioethic law expands organ donation to spouses and friends. Living donor incompatible ABO typing kidney transplant is then allowed. Specific preparation of non suitable recipient, in pre-transplant is necessary and implemented in our unit, since march 2011. The antigen-specific immunoadsorption (ASI) is a plasma process of setting characteristic antigens on a disposable column type Glycosorb® to prevent rejection and allow donor-recipient compatibility.

Disposable set



Results

	Level isoagglutinins anti A/ B Pré ASI	Level isoagglutinins anti A/ B Post ASI	Creatinine Post KT	Months since KT
ASI 4 sessions	2 ≥ ≤ 160 median 16	1 ≥ ≤ 32 median 2	112 ≥ ≤ 247 median 122	6 ≥ ≤ 42 median 17
ASI high vol 1 session	5 ≥ ≤ 64 median 10	1 ≥ ≤ 5 median 2	67 ≥ ≤ 229 median 113	6 ≥ ≤ 14 median 9

Introduction

Successful living donor kidney transplantation in patients with a positive crossmatch and ABOi requires specific measures.

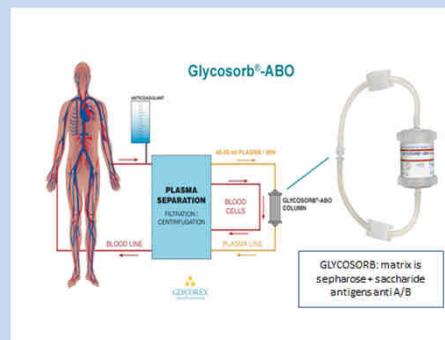
These measures enables better graft survival rates.

Desensitization living donor kidney transplant recipient is necessary by repeated immunoadsorption (IA). IA is accomplished with specific column Glycosorb® (disposable).

No substitution with fresh frozen plasma or albumin.

IA treatment could be coupled with an haemodialysis session.

Immunoadsorption session



Perspectives

Results are comparative to the compatible transplant.

Living donor incompatible transplant activity is a good way to deal with the shortage of cadaveric donation. Reduce waiting time for patients.

Technical protocol must be adapted according to the patient's immunization degree.

It remains to evaluate others techniques (DFPP....), taking into account the benefits / risks, and economic aspects.

2015 New Era Kidney Transplantation

March 2011, the treatment protocol required 4 antigen-specific immunoadsorption (ASI), treating each 3 liters of plasmatic volume (30 included patients).

March 2015, only 1 ASI high volume, dealing 11-18 liters of plasma, depending on the patient's antigen level, is performed (12 included patients).

Progress of session

Setting-up, connecting patient.

Monitoring.

Specific Bio monitoring :

- pre ASI level isoagglutinins anti-A or anti-B
- 6 plasma liters treated
- 10 l. treated, if high level isoagglutinins
- post ASI

Disconnecting, Dismantling.

Duration of session: 6h ≥ ≤8h,
depends on the plasmatic volume treated.

Risks:

- purely specific technique.
- same as extracorporeal blood circulation connection.

Conclusion

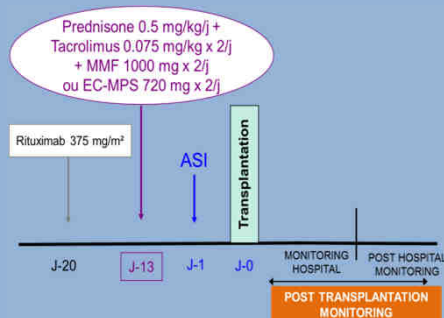
Benefits :

For the patient, the antigen-specific immunoadsorption high volume decreases their hospitalization time. For the institution is a lower cost, giving possibilities of transplanting more patients.

Column is nominative, short expiration time (6 months), storage 5°C.

Cost 3900 €.

Desimmunisation Protocol



Patients Panel

42 NON SUITABLES KIDNEY TRANSPLANTATION					
RECIPIENTS		AGE years old (median)			
M:21	W:19	20-39: 13	40-59: 19	≥ 60: 8	
DONORS		FAMILY	SPOUSES	FRIENDS	CHILDREN
M:17	W: 23	21	13	7	1

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