

Use of Grafalon (r-ATLG) and Thymoglobulin (r-ATG) as Induction in ABO-Incompatible Transplant Recipients with Anti-HLA Sensitization

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Introduction

ABO-incompatible kidney transplantation involves desensitization protocols and anti-thymoglobulin induction therapy. The combination of ABO-incompatibility and anti-HLA sensitization poses a significant immunological risk in kidney transplantation.

This study evaluates the efficacy and safety of two anti-thymocyte globulins, Grafalon (r-ATLG) and Thymoglobulin (r-ATG), in kidney transplants with both ABO and HLA sensitization.

Material and Methods:

This single-center, retrospective study, conducted between March 2021 and February 2024, included 28 ABO-incompatible kidney transplant recipients.



For maintenance immunosuppression, all patients received a triple therapy regimen consisting of Tacrolimus, Mycophenolate Mofetil / Sodium, and Prednisone.

Results:

Outcome	Grafalon (n-17)	Thymoglobulin(n=11)
Rejection Rates	6%	10%
Infection Rates	12%	19%
3-Year Graft and Patient Survival	83%	80%
Serum Creatinine Levels	1±0.37 mg/dL	1.17±0.34 mg/dL
Anti-HLA DSA Levels reduced from >5000 MFI	<1200 by day 400	<1200 by day 400

Conclusion:

Grafalon (r-ATLG) and Thymoglobulin (r-ATG) have demonstrated comparable safety and efficacy in the short-term management of kidney transplant recipients with both anti-HLA and high anti-ABO antibody titers. Both agents effectively reduced rejection rates. Additionally, infection rates were similar between the two treatments, with equivalent anti-HLA desensitization and preservation of graft and patient survival