



## Early vs. late acute antibody mediated rejection among renal transplant recipients in terms of its response to rituximab therapy-single center experience

**Authors:** Gheith O, Al-Otaibi T, Nampoory MRN, Medhat H, Tarek Mahmoud, Prasad Naier, Mohamed Abdul-moneim, Salah Al-Waheeb, and Rashad Hassan



### Introduction

There are no comparable trials concerning the use of rituximab among renal transplant recipients with acute antibody mediated rejection.

### Aim of the study:

We aimed to compare early and late acute AAMR among renal transplant recipients in terms of its response to rituximab therapy.

### Patients and methods:

Out of 1200 kidney transplant recipients performed in Hamed Al-Essa Organ Transplant Center of Kuwait over the last 10 years, 103 developed acute AAMR and were subcategorized into 4 groups according to the onset of rejection and rituximab management. All patients received the standard management of AAMR according to our protocol (PP and IVIG). We added rituximab to the management of cases of group 1 (n=27, early AAMR) and group 2 (n=38, late AAMR) while groups 3 and 4 represented non-rituximab groups (n=20, early AAMR & 18, late AAMR respectively). We compared the 4 groups regarding graft and patient outcome.

### Results:

All patients were comparable regarding demographic data (patient age, sex, pre-transplant type of dialysis viral profile, type of induction, donor criteria, and pre-transplant co-morbidities). We observed that delayed and slow graft function were significantly higher in groups 1, 3 (p=0.016), however we found no significant difference in the 4 groups regarding NODAT, BK viral infection or malignancy. Graft outcome was significantly better in group 1, 2 compared to the other groups (p=0.028). However, patient outcome was comparable in the 4 groups (p>0.05).

### Conclusion:

Early AAMR in renal transplant recipients had significantly better outcome when rituximab was added to the standard management.

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