age 43 years at transplant. Thirteen patients (81%) underwent deceased donor kidney transplantation. Primary FSGS was the etiology of kidney disease in the majority of patients.

All patients had elevation of dd-cfDNA >1% prior to allograft biopsy with median levels 2.6% (0.66-7.9%). There was an inverse association between levels of AT1R and dd-cfDNA (r=-0.2, p=0.2),with stronger correlation for dd-cfDNA done for concern for rejection (r=- 0.5, p= 0.12) compared to those done for all purposes. Levels of dd-cfDNA were lower in patients with FSGS as primary disease (p=0.04), in comparison other etiologies of kidney disease.

Dd-cfDNA levels correlated well with Banff grades of rejection (g r=0.3 p=0.12; ptc r=0.4 p=0.05; g+ptc r=0.4 p=0.04, i+t r=0.06, p=0.4), with AT1R levels demonstrating no correlation (Fig 1)

Conclusions: This study suggests that AT1R titers do not reflect severity of ABMR, while dd-cfDNA correlates well with severity grades of the Banff criteria. This study demonstrates that dd-cfDNA could be used for monitoring and detecting rejection in patients with AT1R antibodies.It is imperative to conduct larger studies to validate these findings.

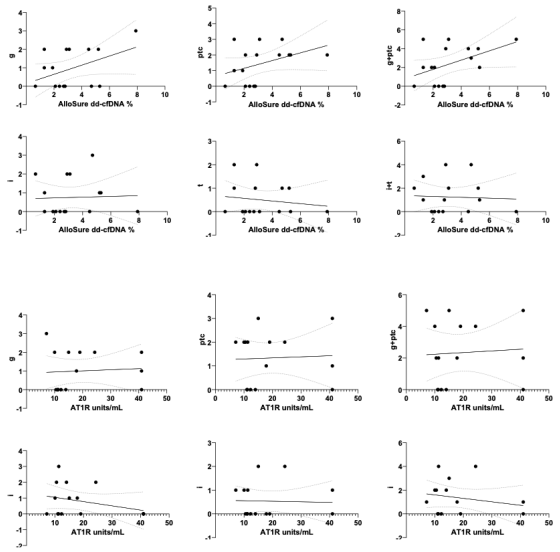

Figure 1. Spearman correlation curves for dd-cfDNA and AT1R levels for various Banff grades of rejection.

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Abstract# 1032

Graft Outcomes of Antibody Mediated Rejection without Donor Specific Anti - HLA Antibodies After Kidney Transplantation

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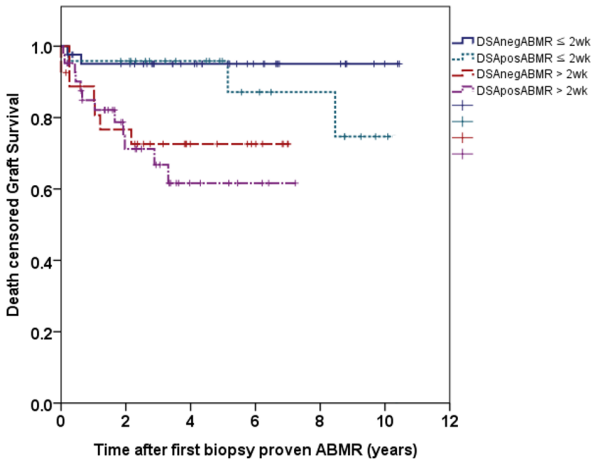
Purpose: The aim of this study was to investigate graft outcomes based on the presence of donor-specific anti-HLA antibodies (DSA) and the time of diagnosis in recipients with biopsy proven antibody-mediated rejection (ABMR) after kidney transplantation.

Methods: Data were collected retrospectively for 136 recipients with histological ABMR after kidney transplantation between January 2010 and December 2018 in Seoul National University Hospital. We compared the graft outcome between the group of ABMR without anti-HLA DSA (DSA_{neg}ABMR) and the ABMR with anti-HLA DSA (DSA_{pos}ABMR). In addition, subgroup analysis was performed for the diagnosis time (within 2 weeks or after 2 weeks) of ABMR after kidney transplantation.

Results: Of a total of 136 recipients with biopsy-proven ABMR, 67 (49.3%) were DSA_{pos}ABMR, and 69 (50.7%) were DSA_{neg}ABMR. The mean time to ABMR histologic diagnosis after kidney transplantation was 0.99 ± 1.93 years and 2.17 ± 2.35 years In the DSA_{neg}ABMR group and the DSA_{pos}ABMR group, respectively (p = 0.002). The mean fluorescence intensity (MFI) of DSA_{pos}ABMR was 8276 ± 8130. Although there was no statistically significant difference (p = 0.077), the DSA_{neg}ABMR group tended to have a superior graft survival rate compared to the DSA_{pos}ABMR group. The estimated glomerular filtration rate (eGFR) level was significantly higher in DSA_{neg}ABMR at the time of ABMR diagnosis (DSA_{neg}ABMR, 48.62 ± 30.60 mL/min/1.73m^2; DSA_{pos}ABMR, 38.78 ± 22.99 mL/min/1.73m^2; p = 0.036) and 1 year after diagnosis (DSA_{neg}ABMR, 53.85 ± 23.22 mL/min/1.73m^2; DSA_{pos}ABMR, 42.83 ± 21.29 mL/min/1.73m^2; p = 0.007). In the subgroup analysis of DSA_{neg}ABMR, ABMR diagnosed within 2 weeks after kidney transplantation had a graft survival rate superior to ABMR diagnosed after 2 weeks or more (p = 0.011). The subgroup analysis of DSA_{pos}ABMR also showed a similar pattern (p = 0.016).

Conclusions: Our data demonstrate that DSA_{neg}ABMR diagnosed within 2 weeks after kidney transplantation had a superior graft survival rate.



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Abstract# 1033

Combined Impact of Pre-sensitization and Delayed Graft Function on Allograft Rejection in Deceased Donor Kidney Transplantation: A Nationwide Cohort Study

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Purpose: The aim of this study is to investigate whether or not delayed graft function (DGF) and pre-transplant sensitization has a synergistic adverse effect on allograft outcome after deceased donor kidney transplantation (DDKT) using the Korean Organ Transplantation Registry (KOTRY) database, the nationwide prospective cohort.

Methods: The study included 1,370 cases between May 2014 and June 2019. The cases were divided into 4 subgroups according to pre-sensitization and the development of DGF post-transplant (non-pre-sensitized-DGF(-) (n=1100), non-pre-sensitized-DGF(+)(n=133), pre-sensitized-DGF(-) (n=116), and pre-sensitized-DGF(+) (n=21)). We compared the incidence of biopsy-proven allograft rejection (BPAR), change in allograft function, allograft or patient survival, and post-transplant complications across 4 subgroups.

Results: The incidence of overall BPAR and acute antibody-mediated rejection (ABMR) was significantly higher in the pre-sensitized-DGF(+) subgroup than in other 3 subgroups. In addition, multivariable analysis demonstrated that pre-sensitization combined with DGF is an independent risk factor for both overall BPAR and acute ABMR (hazard ratio 9.100, p < 0.001). Moreover, DGF and pre-sensitization showed significant interaction with each other (p for interaction < 0.001). Pre-sensitization combined with DGF did not show significant impact on allograft function, and allograft or patient survival.