

Abstract Type : Oral

Abstract Submission No. : OR-1461

Clinical significance of De novo Donor Specific Antibody in Kidney Transplant Recipients with Chronic Antibody-Mediated Rejection

Woo-yeong Park, Ohyun Kwon, Yaerim Kim, Jin Hyuk Paek, Kyubok Jin, Sung Bae Park, Seungyeup Han
Department of Internal Medicine, Keimyung University School of Medicine, Keimyung University Kidney Institute, Korea, Republic of

Objectives: We investigated clinical outcomes of chronic antibody-mediated rejection (CAMR) according to de novo donor specific anti-HLA antibody (dnDSA).

Methods: We retrospectively analyzed 35 kidney transplant recipients (KTRs) diagnosed to CAMR by allograft biopsy between 2010 and 2018. We divided into two groups as follows: 14 KTRs with the dnDSA(-) and 21 KTRs with the dnDSA(+) groups. We investigated pathologic findings at diagnosis of CAMR, allograft function at 1 year after diagnosis of CAMR, the amount of proteinuria, and allograft survival rate according to dnDSA at diagnosis of CAMR.

Results: Pathologic findings at diagnosis of CAMR showed that the mean value of microvascular inflammation (g+ptc score) and proportion of chronic change (cg and cv scores) were significantly higher in the dnDSA(+) group in comparison with the dnDSA(-) group. There was no significant difference in the allograft function at 1 year after diagnosis of CAMR between the dnDSA(-) and dnDSA(+) groups, but allograft function got worse in the graft failure group. There was no significant difference in the amount of proteinuria at diagnosis of CAMR between the dnDSA(-) and dnDSA(+) groups. However, death-censored graft survival rate was lower in the high proteinuria group than low proteinuria group both dnDSA(-) and dnDSA(+) groups. The proportion of rituximab and intravenous immunoglobulin (RIT+IVIG) treatment was higher in the dnDSA(+) group in comparison with dnDSA(-) group. Death-censored graft survival rate was higher in the RIT+IVIG treatment group than non-RIT+IVIG group, regardless of dnDSA.

Conclusions: There was no significant difference in the prognosis according to dnDSA. However, the prognosis of KTRs with low allograft function, high proteinuria at the diagnosis of CAMR or without treatment with RIT+IVIG was poor, regardless of dnDSA. Therefore, aggressive treatments are needed in KTRs with risk factors such as high proteinuria, low allograft function at diagnosis of CAMR, regardless of dnDSA.

Figure 1. Death-censored graft survival according to dnDSA and treatment

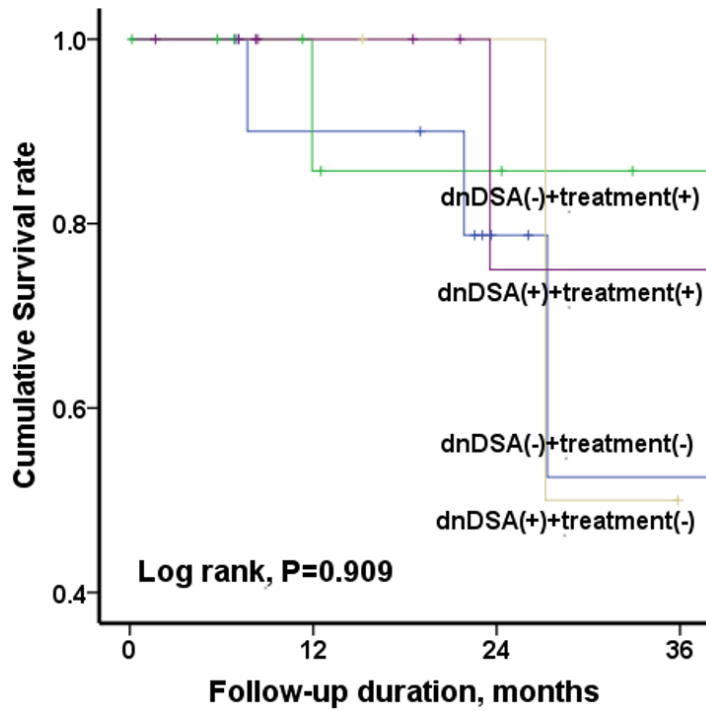


Figure 1. Comparison of death-censored graft survival rate among DSA(-)+treatment(-), DSA(-)+treatment(+), DSA(+)+treatment(-), and DSA(+)+treatment(+).