

Abstract Type : Poster

Abstract Submission No. : PO-1512

Case report: A case of ABO incompatible kidney transplantation with very high-titer anti-ABO antibody along with positive B-CDC crossmatch

Kitae Kim, Sung Hyun Son, HyuKyong Kwon, Jin Min Kong
Department of Internal Medicine-Nephrology, Hanseo Hospital, Korea, Republic of

Case Study: Patients with high anti-ABO titer such as >1:1024 are precluded in some centers for ABO incompatible(ABOi) kidney transplantation(KT) for the concern of higher risk of rejection. Complement dependent cytotoxic(CDC) crossmatch(XM) positivity due to donor specific anti-HLA antibody(DSA) is also challengeable. We recently had a case of ABOi living donor KT with dual incompatibility where anti-ABO titer was 1:4096 and B-CDC/ flowcytometry XM were also positive due to class II DSA.

A 67 year-old husband received a kidney from 61 year-old wife. The cause of ESRD was diabetic nephropathy. Donor/recipient blood group was B/O. Number of HLA mismatch was 5. PRA I/II was 0/14%. A DSA(DR12, epitope 37L) was detected by single antigen beads assay and HLA-matchmaker software. The MFI_{max} of the DSA was 4,648, and MFI_{sum} was 7,960. The MFI in neat and 1:8 diluted serum was similar, suggesting the presence of prozone effect.

He had received a treatment for hepatitis C, mavyret for 8 weeks, with the negative conversion of HCV-PCR at 2 months prior KT. Desensitization comprised of 17 plasma exchange(PE) before KT and 3 additional preventive PE after KT. ABO titer on transplant day was 16. Rituximab 200mg/body and two dose of ATG 1.5mg/kg/day were given as induction.

On day 9, he developed acute antibody mediated rejection(AMR), which was reversed with steroid pulse and 2 PE. MFI_{sum} of DSA was 650 on day 2, but rose to 2,500 on day 10. Anti-ABO titer at the time of the onset of AAMR was 32. These serologic data suggest that the AAMR was caused by DSA rather than anti-ABO. Graft biopsy on day 16 showed resolving process of AAMR (g1, ptc1, c4d2). He was discharged on day 21 with serum creatinine 1.47mg/dl.

A case of ABOi KT with very-high anti-ABO titer along with positive CDCXM was successfully done.