

rituximab을 투여받은 신이식 환자에서 MMF 조기감량의 임상적 결과

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The Clinical Outcome of Early Reduction of MMF in Kidney Transplant Recipients Desensitized with Rituximab

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Background: For ABO incompatible(ABOi) and/or T cell flow cytometry crossmatch(TFCC) positive kidney transplantation (KT), recipient desensitization included rituximab, plasmapheresis and maintaining immunosuppression. With these methods, the patient and graft survival have been much improved, but, many physicians have concerns about increasing risk of infections and toxicities. Our study was aimed to evaluate outcome of early reduction of MMF in recipients desensitized with rituximab.

Method: We prospectively investigated 31 patients underwent KT between November and December 2011. Group 1 were 9 recipients underwent ABOi and/or TFCC positive KT, group 2 were 22 patients ABO compatible (ABOc) and TFCC negative. In group 1, pre-transplant desensitization included rituximab [ABOi with T-flow (-) ; 200 mg, T flow (+); 500 mg] and plasmapheresis. Antibody removal by plasmapheresis was done before operation to reach target titer <1:8 in recipients with ABCi and median fluorescent intensity (MFI) <2.0 with TFCC positive patients. Maintenance immunosuppression including tacrolimus (0.1 mg/kg, target level; 5–10 ng/ml), MMF (1.0–1.5 g/day) and mPD (16 mg/day) was initiated 7 days prior to scheduled operation. mPD was infused 500 mg intraoperatively and tapered to 12–16 mg 1month later. Basiliximab was administered on the day of operation and postoperative 4th day. The dose of MMF was administered 1~1.5g for 7 days and reduced to 0.7~1.0g. In group II, triple immunosuppression were administered prior to 3 days and the dose of MMF was prescribed conventionally.

Results: No significant difference was noted in age, sex and the number of HLA mismatches between 2 groups. During 3 months, there was no graft loss and no patients have died. 1 month after transplantation, the mean creatinine levels of 2 groups were 1.00 mg/dl and 1.23 mg/dl, after 3 months, 1.09 mg/dl and 1.22 mg/dl ($p=0.162$ and $p=0.256$, respectively). 2 patients were diagnosed with acute T-cell mediated rejection by renal biopsy. Both were in group 2 and treated with steroid pulse therapy. 3 patients (33.3%) in group 1 and 6 patients (27.3%) in group 2 diagnosed with infections during the follow-up. Bacterial, viral and fungal infections were identified in 1, 2 and 0 recipients with group 1, while 4, 1 and 1 with group 2, respectively.

Conclusion: Our results demonstrated successful outcome in patients underwent KT desensitized with rituximab and maintained new early reduction of MMF regimens.

Key Words: 신장이식, rituximab, MMF
Transplantation, Rituximab, MMF