

Rituximab 전처치 받은 신장 이식 환자에서 Mycophenolate Mofetil 유지 용량의 분석

울산대학교 의과대학 서울아산병원 신장내과¹, 외과²

박경선¹ · 백중희¹ · 한덕종² · 박재범² · 박수길¹

Lower dose of Mycophenolate Mofetil is Enough for Rituximab Treated Renal Transplant Patients

Kyung Sun Park¹, Chung Hee Baek¹, Duck Jong Han², Jae Berm Park², Su-Kil Park¹

University of Ulsan College of Medicine Asan Medical Center
Division of Nephrology¹, Departement of Surgery²

Background: Rituximab, anti-CD 20 antibody, enabled HLA-sensitized and ABO incompatible renal transplantations possible without splenectomy. As rituximab has a good suppressive effect on B lymphocytes, we would like to know the differences of the conventional immunosuppressive regimen without any harmful effect on graft in rituximab-treated patients compared to usual patients.

Methods: We investigated 69 patients who underwent rituximab treated (200 mg or 500 mg) living donor renal transplantation between January 2009 and March 2011 (group 1). The outcomes of seventy-two renal transplant recipients who did not require rituximab were compared as controls (group 2). All patients except 11 patients were treated with a combination of tacrolimus (FK506), mycophenolate mofetil (MMF) and methylprednisolone (mPD) after two doses of basiliximab for induction therapy in group 1.

Results: Graft survival was 98.3% in group 1 and 100% in group 2 ($p=0.446$). Renal function and incidence of infection including cytomegalovirus and BK virus were not significantly different between the two groups. Acute cellular rejection episodes occurred in 5.2% in group 1 and 9.7% in group 2 ($p=0.511$). Hyperacute rejection and antibody-mediated rejection episode was absent. The drug levels of FK506 and the doses of mPD after 1 year and 2 years after transplantation showed no difference between the two groups ($p=0.237$ and 0.625 at 1 year, $p=1.000$ and 0.667 at 2 years). The required dose of MMF (g/day, mean \pm S.D.) was lower in rituximab-treated group post operative 1 month, 3 months, 6 months and 1 year (1.25 ± 0.45 g vs. 1.42 ± 0.39 g at 1 month; $p=0.035$, 1.15 ± 0.50 g vs. 1.38 ± 0.34 g at 3 months; $p=0.006$, 1.07 ± 0.51 g vs. 1.30 ± 0.42 g at 6 months; $p=0.015$, 0.92 ± 0.57 g vs. 1.22 ± 0.42 g at 1 year; $p=0.017$).

Conclusion: These results suggest that lower dose of MMF is enough for successful immunosuppressive effect in rituximab-treated renal transplantation.

Key Words: Rituximab, 신장 이식, Mycophenolate

Rituximab, Renal transplantation, Mycophenolate