

신장이식 후 발생한 만성거부반응 환자에서 리툽시맙과 면역글로불린의 효과

가톨릭대학교 의과대학 서울성모병원 장기이식센터¹, 내과학교실 신장내과², 병원병리학교실³
고려대학교 의과대학 구로병원 내과학교실 신장내과⁴

김예니², 홍유아⁴, 정병하^{1,2}, 최범순^{1,2}, 박철휘^{1,2}, 최영진³, 김용수^{1,2}, 양철우^{1,2}

Therapeutic Effect of Combination Therapy with Rituximab and Intravenous Immunoglobulin on the Progression of Chronic Antibody Mediated Rejection

Yaeni Kim², Yu Ah Hong⁴, Byung Ha Chung^{1,2}, Bum Soon Choi^{1,2}, Cheol Whee Park^{1,2}
Yeong Jin Choi³, Yong-Soo Kim^{1,2}, Chul Woo Yang^{1,2}

Transplant Research Center¹, Division of Nephrology, Department of Internal Medicine²
Department of Hospital Pathology³, Seoul St. Mary's Hospital,
College of Medicine, The Catholic University of Korea, Seoul, Korea
Division of Nephrology, Department of Internal Medicine⁴, Korea University Guro Hospital,
Korea University, College of Medicine

Background: While combination therapy of Rituximab (RTX) and intravenous immunoglobulin (IVIg) (RIT) has been proposed as therapeutic strategy for the treatment of chronic active antibody-mediated rejection (CAMR), its efficacy has not been established. In this study, we compared clinical outcome between the treatment group and historic control group to ascertain the efficacy of combination therapy for CAMR.

Methods: Fifty-four patients diagnosed as CAMR from 2003 to 2013 were included in this study, among whom twenty-five were treated with RTX (375 mg/m²) and IVIg (0.4 g/kg) for 4 days (RIT group) and the remaining twenty-nine patients were regarded as historic control group. We assessed the change of allograft function before and after the diagnosis of CAMR in terms of the amount of decline in estimated glomerular filtration rate per month (Δ eGFR) and also investigated allograft survival rate after diagnosis of CAMR.

Results: Neither of the two groups showed any significant differences with respect to clinical, historical and baseline characteristics including age at biopsy and gender. Nor did they show any remarkable differences on Δ eGFR and eGFR prior to and at the time of biopsy. However, Δ eGFR improved significantly to 0.02 ± 1.3 mL \cdot min⁻¹ \cdot 1.73m⁻² per month 6 months after biopsy compared to that observed 6 months before RIT (1.33 ± 1.21 , $p < 0.05$). Hence, Δ eGFR post-Bx was significantly lower in treatment group compared to that of historic control group. Moreover allograft survival rate after biopsy was significantly higher in treatment group at 3 years from the diagnosis of CAMR.

Conclusion: In CAMR, RIT could be proposed as a promising regimen in terms of delaying the progression of CAMR and better allograft survival rate compared to HC group.

Key Words: 만성 항체 매개성 거부반응, 리툽시맙, 정맥 면역글로불린

Chronic antibody mediated rejection, Rituximab, Intravenous-im