F-E6

신장이식 환자의 만성 항체 매개성 거부 반응에서 리툭시맵과 면역 글로불린 병합 치료의 효과

가톨릭대학교 의과대학 서울성모병원 신장내과

안건희, 윤진탁, 홍유아, 정병하, 최범순, 박철휘, 김용수, 양철우

The Combination of Rituximab and Intravenous Immunoglobulin is Effective for Delaying Progression of Chronic Antibody Mediated Rejection

Gun Hee An, Jintak Yun, Yu Ah Hong, Byung Ha Chung, Bum Soon Choi
Cheol Whee Park, Yong-Soo Kim, Chul Woo Yang

Division of Nephrology Department of Internal Medicine The Catholic University of Korea Seoul Korea

Background: Chronic antibody-mediated rejection (CAMR) is an important cause of late allograft dysfunction. But established treatment guidelines for CAMR have not been determined. The aim of current study was to evaluate the efficacy of the protocol composed of rituximab (RTX) and intravenous immunoglobulin (IVIg) for the treatment of CAMR.

Method: Eighteen patients with biopsy-proven CAMR were included and investigated estimated GFR by MDRD formula and proteinuria during follow-up period. We used protocol composed of a single dose of RTX (375 mg/m^2), followed by IVIg (0.4 g/kg) for 4 days. Patients were divided into responder (patients with decline rate of eGFR <1 ml/min per month) and non-responder group (patients with decline rate of eGFR ≥1 ml/min per month) and compared clinical and histological parameters at treatment.

Result: All patients showed progressive deterioration of allograft function before RTX/IVIg therapy at the diagnosis of CAMR (p=0.035 [Pre-treatment 48.1±17.5 vs Post-treatment 35.8±16.1 ml/min]) and follow-up duration after treatment was 10.8±8.6 months. After treatment, decline rate of eGFR slowed down significantly (p=0.024 [change of eGFR: Pre-treatment -10.9±5.9 vs Post-treatment -3.4±10.2 ml/min]. In addition, the amount of proteinuria improved markedly after treatment (change of proteinuria, p=0.038 [Pre-treatment 1.1±1.8 vs Post-treatment -0.4±1.8 g protein/g creatinine]. The response rate in our RTX and IVIg combination therapy was 61 %. In 11 patients belonged to responder group, allograft function was stabilized (p=0.059 [35.7 to 38.8 ml/min]), but showed significant deterioration in seven patients classified into non-responder group (p=0.01 [36.0 to 23.7 ml/min]). Non-responder group showed heavier proteinuria at treatment compared to responder group (p=0.005 [Responder 2.1±1.8 vs Non-responder 7.4±3.3 g protein/g creatinine]).

Conclusion: The combination of RTX and IVIg was effective for the delay of deterioration of allograft function and the reduction of proteinuria in CAMR patients, however the effect was limited in cases with massive proteinuria at diagnosis.

Key Words: 리툭시맵, 만성 항체매개성 거부반응, 신장이식
Rituximab, Chronic antibody-mediated rejection, KT