F-B3

# 혈액형 불일치 신장 이식에서 면역학적 위험도에 따른 리툭시맙 용량 결정

가톨릭대학교 서울성모병원 내과학교실 신장내과

정병하, 김정관, 최범순, 박철휘, 김용수, 양철우

# Determination of Rituximab dose According to Immunologic Risk in ABO Incompatible Kidney Transplantation

Byung Ha Chung, Jeong Gwan Kim, Bum Soon Choi, Cheol Whee Park, Yong Soo Kim, Chul Woo Yang

Department of Internal Medicine, Division of Nephrology, The Catholic University of Korea Seoul St. Mary

The adequate rituximab (RTX) dosage in ABO incompatible transplantation (ABO IKT) remains undetermined. We used two kinds of RTX dose (low (100 mg/$m^2$) and typical (375 mg/$m^2$) dosage) according to immunologic risk and investigated the change of B-cell, anti-ABO antibodies and the clinical outcome in ABO IKT according to RTX dose. Fifteen patients with high immunologic risk (PRA>50%, Retransplant, AB to O transplant) were assigned to typical RTX group and 17 patients without risk were assigned to low RTX group. We compared the change of B-cell, anti-ABO antibody titer, required number of plasmapheresis (PP) and the clinical outcome after transplantation between 2 groups. After infusion of RTX, peripheral blood B-cell counts were successfully depleted to <1% in both groups. Before kidney transplantation, the minimal number of PP to achieve the target titer (1:16) (2.6±2.7 vs. 2.2±2.5; p=0.66) and the titer reduction rate of anti-ABO antibodies did not differ between the 2 groups (low RTX: 1.52±1.21 vs. typical RTX: 1.53±1.20, p=0.94). After kidney transplantation, anti-ABO antibody titer was suppressed less than 1:32 in both groups up to post-transplant 1 year. The allograft function and infectious complication did not differ between 2 groups as well. In ABO IKT, low dose RTX is comparable to typical RTX dosing with respect to B-cell depletion, antibody rebound suppression. Therefore, it could be used safely in patients with low immunologic risk without increased risk for antibody mediated rejection.

**Key Words:** 신장 이식, 혈액형 불일치, 리툭시맙
Kidney transplantation, ABO mismatch, Rituximab