

혈액형 부적합 생체 신이식의 리툭시맙 최소 사용과 이식 후 선택적 혈장 반출술의 단일 기관 연구

메리놀 병원 신장내과

공진민 · 배기영 · 최송화 · 허승희 · 곽영희 · 전미영 · 김병창 · 정준헌

ABO Incompatible Living Donor Kidney Transplantation (ABOi KT): Minimal dose of Rituximab and not a Routine but As-Needed Posttransplant Plasmapheresis

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ABOi KT is now an established procedure with outcome equivalent to ABO compatible KT. There are various protocols in different parts of the world, and the refinement of the protocol is necessary to improve outcome, safety and cost.

Since the initiation of ABOi KT in 2007 in our center, the protocol has been being evolved. Conventional dose (375 mg/m²) of rituximab was used initially, the dose halved subsequently, and recently 100 mg fixed dose was used. Pretransplant plasmapheresis aimed anti-ABO titer ≤ 8 on transplant day, but patients with higher (≥ 16) titer whose antibody could not be lowered to target on transplant day were also allowed to transplant. Posttransplant plasamperesis was not done routinely but as needed in patients with higher antibody titer or increase in creatinine while awaiting biopsy result during the critical period.

A total of 36 ABOi KT was done since Feb. 2007. Median follow up was 17 (0-52) months. Patient and graft survival is 100%. There was only 1 clinical acute AMR. Median (range) anti-ABO titer at initial, on transplant day and at 2 weeks was 64 (8-1024), 2 (1-16) and 2 (1-16), respectively. The duration of the depletion of peripheral CD19+ cells among patients with different dose of rituximab seems not different. There was no CMV disease or BKV nephropathy. One patient developed progressive multifocal leukoencephalopathy with recovery of neurologic symptom by reduction of immunosuppressants.

Conclusion: ABOi KT with minimal dose of rituximab and restricted use of posttransplant plasmapheresis can be performed with excellent outcome, reduced cost and safety.

Key Words: 혈액형부적합신이식, 리툭시맙, 혈장반출술
ABOi KT, Rituximab, Plasmapheresis