

## 미미하게 유세포분석 양성인 신장이식 환자에서 탈감작후의 결과

울산대학교 의과대학 서울아산병원 내과

조형진, 양원석, 박수길

### Outcome of Marginally Flow Cytometry Cross Match Positive Renal Transplant Patients after Desensitization

Hyung Jin Cho, Won Seok Yang, Su Kil Park

Internal Medicine Asan Medical Center Collage of Medicine University of Ulsan Seoul Korea

**Background:** Recently, the renal transplantation for the HLA antibody-sensitized patients has been progressed markedly. Initially, Our center began to perform renal transplantation for sensitized patients after achieving flow cytometry MFI ratio less than 2.0 after desensitization using rituximab and plasmapheresis±IVIG. Thereafter, in spite of intensive desensitization, several patients did not reached MFI ratio less than 2.0. However, we performed renal transplantation with the agreement of patients under the consideration of reference.

**Methods:** To desensitize the sensitized patients (originally CDC negative flow cytometry MFI ratio more than 2.0), plasmapheresis was performed after rituximab 500 mg IV. Patients who showed very high donor specific antibody titer (MFI ratio >10.0, except one patient), received IVIG. Tacrolimus based triple drug-immunosuppression was started before 7-10 days of operation except one patient. Basiliximab was administered two times (D0,D4) as for other usual renal transplant patients. No thymoglobulin was given for the induction therapy.

**Results:** Nine patients were enrolled between March 2009 and May 2012. Living donor transplantation was performed for these 9 patients (median age 47.3 years) after plasmapheresis (mean 10.3 times) and rituximab. Five patients received IVIG for desensitization, and one patient received only two dose of bortezomib perioperatively as a prophylaxis of antibody mediated rejection. Mean MFI ratio before and after desensitization was 12.5 and 2.42, respectively. One patient experienced clinically acute antibody mediated rejection which was reversed after one cycle of bortezomib with postoperative plasmapheresis and IVIG. Other 8 patients did not experience any kind of rejection so far. After mean follow up of 15.0 months, the renal function is very good without any loss of graft (mean serum creatinine 1.0) in these 9 patients.

**Conclusion:** This data shows that patients who have still marginally flow cytometry cross match positive patients after receiving desensitization could undergo transplantation successfully without heavy dose of postoperative immunosuppression.

**Key Words:** 신장이식, 유세포분석, 탈감작

Kidney transplant, Flow cytometry cross match, Desensitization