

## 과감작 환자에서의 신장 이식: 단일 기관에서의 경험

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### Kidney Transplantation in Highly Sensitized Recipients: A Single Center Experience

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Many patients who have an otherwise acceptable living- kidney donor do not undergo transplantation because of the presence of antibodies against the donor antigens, thus resulting in graft failure. Although several desensitization protocols have been introduced to remove the donor- specific antibodies, these protocols have not been broadly applied because of complications and high risks of graft failure.

Seven patients with positive donor- specific antibody were underwent living- donor renal transplantation. A preconditioning regimen of plasmapheresis (PP) and intravenous immunoglobulin (IVIg, 100 mg/kg after each PP) were delivered three times weekly until donor specific antibody titers were reduced to cut- off value. Combined immunosuppression with mycophenolate mofetil, tacrolimus and/or prednisolone were started 2 weeks before transplantation. The protocol was modified after treatment of the third patient, to include administration of rituximab (375 mg/m<sup>2</sup> at day- 15, day- 1) and simulect (4 mg, at day0, day4).

All the patients became anti- donor specific antibody- negative after 2 to 7 PP/IVIg and underwent living- donor transplantation. Acute cellular rejections occurred in 2 (28.6%) patients, but those were subclinical and controlled with steroids. Antibody- mediated rejection occurred in 1 patient at day13 and was reversible with plasmapheresis. All recipients attain normal graft function during 2- 19 months of follow up. We identified HLA class I/II antibody specificity in 3 of 7 patients, these 3 patients have demonstrated sustained low level of donor specific antibody. Some adverse events were observed. Bleeding occurred in 4 patients; 3 patients received packed- RBC transfusion, 1 patient underwent surgical exploration for bleeding control. Wound infection was occurred in 1 patients, which was controlled with intravenous antibiotics.

Our result suggests that the sensitized patients can be transplanted successfully with the utilization of desensitization pretreatment. Desensitization as well as donor- exchange program may expand donor pools, and may contribute as the solution for organ shortage.

**Key Words :** 동종 항체, 체액성 거부반응, 교차반응 양성

Alloantibodies, Humoral rejection, Positive cross match