

## 혈연간 신이식 후 면역관용을 보인 소아 1예

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### A Pediatric Case Showing Spontaneous Allograft tolerance after Living Related Donor Kidney Transplantation

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Clinical operational tolerance, defined as stable and acceptable graft function without immunosuppression for years, is a rare event. To date, there has been no report of spontaneous tolerance in pediatric kidney allograft case. In the past, young children had been considered as high- risk recipients of kidney transplantation and pediatricians often recommended young renal failure patients to delay transplantation until the age of five. However, recent studies suggest that allograft survival of infant recipients be better than that of any other age group of recipients. In support of this notion, here we report a case of spontaneous operational allograft tolerance in young child after living- related donor kidney transplantation. A seven- year- old boy visited outpatient clinic for evaluation of allograft kidney function. He was diagnosed of infantile nephrotic syndrome with pathology of FSGS at the age of 4 months and lost the kidney function in six months. After four months of peritoneal dialysis, his mother's kidney was transplanted to him at the age of 14 months. HLA typing of donor and recipient showed two- antigen mismatch (recipient HLA A24, 31 B27, 44 C1, 7 DR1, 7; donor HLA A31 B27, 51 C1 DR 1, 14). Allograft function had been well maintained with immunosuppression of cyclosporin and corticosteroid without an episode of rejection. One and half year later he had become less compliant and were lost to follow- up at three years after kidney transplantation. At his last visit, his blood chemistry showed BUN of 10 mg/dL, Creatinine 0.7 mg/dL. Since last visit he has not been on any medication for immunosuppression. On this visit, 6 years after transplantation, his renal function remained stable (BUN 16 mg/dL, Creatinine 0.9 mg/dL), urinalysis showed no abnormality, and doppler ultrasonography of allograft kidney was normal. Immunological evaluation revealed microchimerism of donor cell (HLA DRB1\*1403) and positive PRA against donor HLA Ag (positive in 32 of 40 panels in HLA class I and 21 of 30 panels in HLA class II including B51 and DR14). Retrograde evaluation of pre- transplant sample showed microchimerism as well. Further evaluation was yet to be done due to non- compliance.

**Key Words :** 신이식, 면역관용, 소아

Kidney transplantation, Children, Operational tolerance