

## OPTIMUM study: 신장이식 환자에서 적정용량의 calcinurin inhibitor와 mycophenolate sodium의 병용치료에 의한 신기능 유지

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### Organ Function Preservation by the Combination Treatment of the OptimuM dose of Calcineurin Inhibitor and Mycophenolate Sodium in Kidney Recipients: OPTIMUM Study

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**Background, Introduction:** of the calcineurine inhibitors has significantly increased 1-year renal allograft survival, however, they have not extended long-term allograft survival. Here, we have hypothesized that low tacrolimus (Tac) dose together with mycophenolate sodium (MPS) dose adjustment will preserve better renal graft function without rising adverse effects in the recipients with stable graft function more than one year post-transplantation.

**Methods:** A total of 288 Korean renal allograft recipients from 7 centers were randomized for treatment with either conventional dose Tac (5-10 pg/ml target trough level) and usual-dose MPS (360 mg twice a day) or low-dose Tac (2-5 pg/mL target trough level) and high-dose MPS (720 mg twice a day). 147 patients received a conventional dose and 141 received a low dose of Tac.

**Results:** The time of enrollment from kidney transplantation was 2.5±1.2 years in both groups. After 12 months later, the trough levels were significantly different (6.5±1.8 vs. 4.4±1.7 ng/ml, p<0.001). eGFR at 12 months of low-dose Tac group was superior to that of conventional-dose Tac group, although it was not statistically significant (low-dose vs. conventional-dose 66.6±18.2 vs. 63.1±16.6 mL/min/1.73m<sup>2</sup>, p=0.138). During the 12 months, rates of acute rejection, opportunistic infection and leukopenia were similar in both groups. Graft failure occurred in 1 patient of conventional-dose Tac group. However gastrointestinal adverse events requiring change of immunosuppression occurred more in low-dose Tac group than in conventional-dose group (6.4% vs. 3.7%, p=0.033).

**Conclusion:** Low-dose Tac exposure combined with intensified mycophenolate sodium could provide the better renal function in immunologically stable period after kidney transplantation.

**Key Words:** 신장이식, 다기관연구, 이식신 기능

Kidney transplantation, Multicenter studies, Graft function