

## 10년 이상 안정적 신기능을 유지하는 신장이식 환자에서 칼시뉴린 억제제를 sirolimus로 전환했을 때의 안전성 및 내약성

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### Safety and Tolerability of Conversion from Calcineurin Inhibitor to Sirolimus in Patients with Stable Graft Function More than 10 Years

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**Background:** Most of studies that converting of immunosuppressant from calcineurin inhibitors (CNI) to sirolimus (SRL) were performed in patients with early post-transplantation period. We investigated whether conversion from CNI to SRL is safe in renal transplant recipients (RTRs) with stable graft function more than 10 years.

**Method:** Total 14 RTRs were enrolled. The mean duration from renal transplantation to the beginning of the study was  $15.4 \pm 2.9$  years. The mean MDRD-GFR was  $72.24 \pm 20.16$  ml/min/1.73m<sup>2</sup>. They were applied SRL (2-3 mg) with reduction of CNIs as half-dose. Trough level of SRL was maintained between 3-8 ng/mL. After two weeks, CNIs were withdrawn. Antiproliferative agents were stopped at 3 months after conversion. We assessed safety of conversion by checking the incidence of acute rejection, proteinuria, lipid profile and renal function at 1, 3 and 6 months. The patient's tolerability of conversion was evaluated with side effect of SRL.

**Result:** Conversion was successful in 9 out of 14 patients (64.2%). There was no acute rejection after conversion, and MDRD-GFR did not show significant change compared to the baseline value ( $p=0.32$ ). However, urinary protein-to-creatinine ratio was increased significantly ( $p=0.026$ ), and lipid profile (total cholesterol and LDL) was aggravating after conversion ( $p=0.001$  and  $p<0.001$ , respectively). Five cases were failed to convert from CNIs to SRL. Main causes of discontinuation of SRL were severe oral mucositis ( $n=3$ ), diarrhea ( $n=1$ ) and facial dermatitis ( $n=1$ ). These adverse effects occurred within one month after conversion.

**Conclusion:** SRL conversion in RTRs with stable graft function more than 10 years follow up is safe in terms of allo-graft function and acute rejection. However, high rate of intolerance due to various side effects may limit the use of SRL.

**Key Words:** Sirolimus, 칼시뉴린억제제, 신장이식  
Sirolimus, Calcineurin inhibitor, Renal transplantation