P-37

사이클로스로린 또는 1일 2회 타크로리무스를 복용중인 환자에서 하루1회 타크로리무스로 전환할 경우 인슐린 감수성과 지질계수의 변화

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A Change in Insulin Sensitivity and Lipid Profile in Renal Transplant Recipients Converted from Cyclosporine or Standard Release Tacrolimus to Once-daily Prolonged Release Tacrolimus

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Background: New-onset diabetes after transplantation may be associated with the use of tacrolimus (Tac) causing impaired insulin release or reduced insulin sensitivity. And, dyslipidemia commonly occurred after transplantation. Such effects in insulin sensitivity and lipid profile have not been studied in renal transplant recipients receiving traditional twice-daily tacrolimus (TacBID) or cyclosporine and then compared to the new once-daily prolonged release formulation of tacrolimus (TacOD).

Methods: We performed an observational prospective study of 20 stable non-diabetic renal transplant recipients on change in insulin sensitivity and lipid profile in renal transplant recipients converted from cyclosporine or standard release tacrolimus to once-daily prolonged release tacrolimus. We evaluated the level of HbA1c, total cholesterol, HDL, LDL, TG, apolipoprotein A1, apolipoprotein B, serum creatinine, fasting plasma glucose, fasting insulin and HOMA-β at base line, two and four months. To analyze differences in parameter, we performed a t-test in both groups (cyclosporine to TacOD conversion group/TacBID to TacOD conversion group)

Results: Tacrolimus trough concentration was 4.5±0.5 μg/mL. The result did not showed and any change in insulin sensitivity and lipid profile after conversion at two and four months.

Conclusion: Conversion from standard TacBID or cyclosporine to TacOD is safe. In spite of a reduced Tac exposure, there was no change in insulin sensitivity and lipid profile in renal transplant recipients.

Key Words: 사이클로스포린, 타크로리무스, 인슐린 감수성
Cysclosporine, Tacrolimus, Insulin sensitivity