

동반질환지표를 이용한 신이식 환자의 예후 예측

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Prediction of Long-term prognosis of the Kidney Transplantation using Comorbidity Score

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Background: Comorbidity assessment is important to the informed interpretation of kidney allograft outcomes. Weights assigned to comorbidities to predict survival may vary based on the type of index disease and advances in the management of the comorbidities. We aimed to develop a modified Charlson comorbidity index (CCI) in renal allograft recipients (mCCI-KT), thereby improving risk stratification for mortality.

Methods: A total of 3,765 recipients in multicenter cohort were included to develop comorbidity score. The weights of comorbidities per the CCI were recalibrated using a Cox proportional hazards model. The modified score was validated in an independent nationwide cohort (n=1,538).

Results: The Cox proportional hazards model revealed that peripheral vascular disease, mild liver disease, and diabetes with end-organ damage in the CCI significantly predicted mortality. Thus, the mCCI-KT included 3 comorbidities with recalibrated severity weights. In the validation cohort, both the CCI and the mCCI-KT were correlated with mortality. The mCCI-KT showed modest increases in c statistics compared with the CCI (0.565 versus 0.534, p=0.002).

Conclusions: The mCCI-KT stratifies the risk better for mortality in renal allograft recipients compared with the CCI, suggesting that it could be a preferred index for use in clinical practice.

Key Words: 사망률, 신이식, 동반질환
Mortality, Kidney transplantation, Comorbidity