

투석을 시작하는 만성 신부전 환자에서 SPECT를 이용한 관상동맥질환 스크리닝검사의 유용성

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Cardiac Risk Assessment by Gated Single Photon Emission Computed Tomography in Asymptomatic End-Stage Renal Disease Patients at the Start of Dialysis

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Objectives: The present study assessed the impact of cardiac risk assessment using gated single photon emission computed tomography (SPECT) on cardiac events in end-stage renal disease (ESRD) patients.

Methods: We evaluated 215 asymptomatic patients who began dialysis between January 2005 and April 2009. Baseline electrocardiography and echocardiography were performed in all patients. The subjects were stratified into low- and high-risk groups according to the baseline clinical parameters, and gated SPECT was additionally recommended for the high-risk patients.

Results: The study population consisted of 50 low- and 165 high-risk patients undergoing SPECT. Among the high-risk patients, 75 (45.5%) showed reversible perfusion defects on SPECT and their overall cardiac-event rate per person-year of follow-up was 15.0%, which was significantly higher than 4.5% in high-risk group without reversible perfusion defect and 1.2% in low-risk group. The presence of reversible perfusion defect was a significant independent predictor of adverse cardiac events [Hazard ration (HR) 3.28; 95% Confidence Interval (CI) 1.79–5.99, $P < 0.001$]. However, coronary revascularization in asymptomatic patients was not associated with improved cardiac event-free survival (HR 0.62, 95% CI 0.26–1.52, $P = 0.296$).

Conclusion: Gated SPECT may provide additional prognostic information for cardiac risk stratification, particularly among high-risk patients starting dialysis

Key Words: SPECT, 말기신부전, 관상동맥질환
SPECT, End-stage renal disease, Cardiac outcomes