

中文題目：血中高敏感心肌鈣蛋白是血液透析病人的總死亡率與心血管事件的預測指標

英文題目：Circulating high-sensitivity cardiac troponin T as a predictive marker of all-cause mortality and major adverse cardiovascular events in maintenance hemodialysis patients

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Background: High sensitivity cardiac troponin-T (hs-cTnT) are prognostic markers in patients with stable cardiovascular disease but limited study investigated the cardiovascular outcome association in asymptomatic patients receiving hemodialysis (HD). We, therefore, evaluated the prognostic value of hs-cTnT in predicting adverse outcomes in stable HD patients.

Methods: A total of 341 stable HD patients was included in this prospective cohort study. Baseline hs-cTnT was measured by Roche hs-cTnT assays. Patients were followed for 3 years or until death or MACEs (major cardiovascular adverse events; a composite endpoint of the acute coronary syndrome, ischemic stroke, or hospitalization for heart failure). Survival was computed by the Kaplan-Meier method. Cox proportional hazards model was used to determine independent predictors of MACEs or total mortality.

Result: The HD patients enrolled in this study was 59.2 ± 11.5 87 years old, 53.4% male, 42.5% had diabetes, 76.8% had hypertension, 17.6% had coronary artery disease, and 9.1% had cerebrovascular disease. In multivariate Cox regression analysis, the circulating hs-cTnT levels were independent associated with all-cause mortality (HR 2.92; 95% CI 1.15-7.47; p -value =0.025) and MACEs (HR 2.74; 95% CI 1.33-5.67; p -value=0.007) after adjusting for age, sex, cause of end-stage renal disease, hemodialysis duration, comorbidities (diabetes mellitus, hypertension, coronary artery disease, cerebrovascular disease), medications (antiplatelets, angiotensin-converting enzyme inhibitor/angiotensin receptor blocker, beta-blockers, and statin), and laboratory data (hemoglobin, albumin, low-density lipoprotein, calcium \times phosphate, C-reactive protein, , and Kt/V).

Conclusion: Circulating hs-cTnT levels independently predicted all-cause mortality and MACEs in chronic HD patients. Cardiovascular risk in hemodialysis patients could be stratified according to hs-cTnT levels. The results suggest the useful property of hs-cTnT as an end-organ damage marker reflecting subclinical cardiac injury.