

혈액투석을 시작하는 환자에서 사망인자로서 TnT 보다 NT-proBNP가 더 의미있다

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NT-proBNP is a More Significant Prognostic Biomarker for Mortality than Troponin T in Incident Hemodialysis Patients

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Background: Numerous previous studies have demonstrated that cardiac and inflammatory biomarkers are significant predictors of cardiovascular (CV) and all-cause mortality in ESRD patients, but most of the studies were retrospective or included small numbers of patients, only prevalent dialysis patients, or only measured one or two biomarkers. The aim of this study was to investigate the association between three cardiac biomarkers and mortality in incident hemodialysis patients.

Methods: A prospective cohort of 864 incident hemodialysis patients was followed for up to 30 months. Based on the median values of baseline NT-proBNP, cTnT, and hsCRP, the patients were divided into 'high' and 'low' groups, and CV and all-cause mortality were compared between each group.

Results: The CV survival rates were significantly lower in the 'high' NT-proBNP and cTnT groups compared to the corresponding 'low' groups, while there was no significant difference in CV survival rates between the two hsCRP groups. However, all-cause mortality rates were significantly higher in all three 'high' groups compared with each lower group. In multivariate Cox models, natural log of NT-proBNP and cTnT were found to be significant independent predictors of CV and all-cause mortality. Moreover, among the three biomarkers, NT-proBNP had the highest positive predictive values for not only CV mortality (AUC=0.812, P<0.001) but also all-cause mortality (AUC=0.666, p=0.003).

Conclusions: Although high levels of NT-proBNP and cTnT, but not hsCRP, are independently associated with CV and all-cause mortality in incident hemodialysis patients, the prognostic value of NT-proBNP for mortality is higher than that of cTnT.

Key Words: 혈액투석, NT-proBNP, 사망인자
NT-proBNP, Hemodialysis, Mortality