# 学 位 論 文 の 要 旨

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主論文の題名

Hemodynamic and pathophysiological characteristics of intradialytic blood pressure elevation in patients with end-stage renal disease

主論文の要旨

Hemodynamic and Doppler echocardiographic characteristics of intradialytic-HTN, and its impact on clinical outcomes are unclear. A retrospective analysis of 84 patients stratified into three groups based on systolic blood pressure (SBP) response from pre- to post-hemodialysis: $G_{HTN}$ (intradialytic-HTN, SBP increase ≥10mmHg), $G_{DROP<15mmHg}$ (SBP drop <15mmHg), and $G_{DROP\geq15mmHg}$ (SBP drop ≥15mmHg). Hemodynamic and echocardiographic assessments were performed pre- and post-hemodialysis, and patients were followed for 41±17 months. $G_{HTN}$ had higher blood glucose, smaller cardiothoracic ratio, and lower baseline SBP, serum potassium, and peak early diastolic mitral annular velocity (E'). After hemodialysis, left ventricular (LV) filling pressure (E/E' ratio) decreased only in $G_{DROP\geq15mmHg}$, resulting in a higher E/E' ratio in $G_{HTN}$ than $G_{DROP\geq15mmHg}$. Multivariate logistic regression analysis revealed a positive correlation between blood glucose and intradialytic-HTN, whereas cardiothoracic ratio, pre-hemodialysis SBP and the change in E/E' ratio with hemodialysis were negatively related to intradialytic-HTN. During follow-up, $G_{HTN}$ had more cardiovascular deaths than $G_{DROP\geq15mmHg}$. Multivariate Cox regression analysis showed that lower serum potassium and previous coronary artery disease, but not intradialytic-HTN, were associated with cardiovascular deaths. A higher LV afterload and elevated filling pressures after hemodialysis may contribute in part to an increased cardiovascular burden in patients with intradialytic-HTN.