学 位 論 文 の 要 旨

所　属	乙　三重大学大学院医学系研究科 　　生命医科学専攻　ゲノム細胞医科学講座 　　ゲノム診断治療学分野	氏　名	増田　千秋

主論文の題名

Impact of Chronic Kidney Disease on the Presence and Severity of Aortic Stenosis in Patients at High Risk for Coronary Artery Disease

主論文の要旨

Objective: We evaluated the impact of chronic kidney disease (CKD) on the presence and severity of aortic stenosis (AS) in patients at high risk for coronary artery disease (CAD).
Methods: One hundred and twenty consecutive patients who underwent invasive coronary angiography were enrolled. Aortic valve area (AVA) was calculated by the continuity equation using transthoracic echocardiography, and was normalized by body surface area (AVA index).
Results: Among all 120 patients, 78% had CAD, 55% had CKD (stage 3: 81%; stage 4: 19%), and 34% had AS (AVA < 2.0cm2). Patients with AS were older, more often female, and had a higher frequency of CKD than those without AS,but the prevalence of CAD and most other coexisting conventional risk factors was similar between patients with and without AS. Multivariate linear regression analysis indicated that only CKD and CAD were independent determinants of AVA index with standardized coefficients of -0.37 and -0.28, respectively. When patients were divided into 3 groups (group 1: absence of CKD and CAD, n = 16; group 2: presence of either CKD or CAD, n = 51; and group 3: presence of both CKD and CAD, n = 53), group 3 had the smallest AVA index (1.19 ± 0.30*# cm2/m2, *p < 0.05 vs. group 1: 1.65 ± 0.32 cm2/m2, and #p < 0.05 vs. group 2: 1.43 ± 0.29* cm2/m2) and the highest peak velocity across the aortic valve (1.53 ± 0.41*# m/sec; *p < 0.05 vs. group 1: 1.28 ± 0.29 m/sec, and #p < 0.05 vs. group 2: 1.35 ± 0.27 m/sec).
Conclusion: CKD, even pre-stage 5 CKD, has a more powerful impact on the presence and severity of AS than other conventional risk factors for atherosclerosis in patients at high risk for CAD.