

学位論文の要旨

三 重 大 学

所 属	三重大学医学系研究科生命医科学専攻 甲 病態制御医学講座 循環器内科学分野	氏 名	市川 和秀
-----	---	-----	-------

主論文の題名

Ventricular Function and Dyssynchrony Quantified by Speckle-Tracking Echocardiography in Patients with Acute and Chronic Right Ventricular Pressure Overload

主論文の要旨

We investigated right and left ventricular (RV and LV) adaptation to RV pressure overload in acute pulmonary thromboembolism (APTE) and chronic pulmonary artery hypertension (CPAH). Myocardial deformation and wall motion were analyzed using speckle-tracking strain and displacement imaging echocardiography in the right and left ventricles in 37 patients with APTE, 36 patients with CPAH, and 33 controls. The standard deviation of the heart rate-corrected intervals from QRS onset to peak systolic strain (PSS) and peak systolic displacement (PSD) for the six segments was used to quantify ventricular dyssynchrony (PSS dyssynchrony and PSD dyssynchrony). The APTE and CPAH groups had impaired ventricular performance and large dyssynchrony in the both ventricles (LV longitudinal PSD dyssynchrony, 58 ± 41 msec, 119 ± 49 msec [$P < .05$ vs. controls], and 83 ± 37 msec [$P < .05$ vs. controls and the APTE group] in the control, APTE, and CPAH groups, respectively). Multiple regression analysis indicated that LV longitudinal PSD dyssynchrony in the APTE group and the LV eccentricity index in the CPAH group were independent determinants of LV myocardial performance index. In conclusion, pathophysiologic mechanisms that regulate ventricular performance vary depending on whether the ventricles are exposed to acute or chronic RV pressure overload.