

学位論文審査結果の要旨

所 属	甲 三重大学大学院医学系研究科 生命医科学専攻 病態制御医学講座 循環器内科学分野	氏 名	市川 和秀
審 査 委 員	主 査 佐久間 肇 副 査 島岡 要 副 査 新保 秀人		
<p>(学位論文審査結果の要旨)</p> <p>Ventricular Function and Dyssynchrony Quantified by Speckle-Tracking Echocardiography in Patients with Acute and Chronic Right Ventricular Pressure Overload</p> <p>【主論文審査結果の要旨】</p> <p>著者らは論文において下記の内容を述べている。</p> <p>BACKGROUND:</p> <p>The aim of this study was to noninvasively investigate right ventricular and left ventricular (LV) adaptation to right ventricular pressure overload in patients with acute pulmonary thromboembolism (APTE) and chronic pulmonary artery hypertension (CPAH).</p> <p>METHODS:</p> <p>Thirty-seven patients with APTE, 36 patients with CPAH, and 33 controls were retrospectively enrolled. Myocardial deformation and wall motion were analyzed using speckle-tracking strain and displacement imaging echocardiography in the right and left ventricles. The standard deviation of the heart rate-corrected intervals from QRS onset to peak systolic strain and peak systolic displacement (PSD) for the six segments was used to quantify right ventricular and LV mechanical dyssynchrony (peak systolic strain dyssynchrony and PSD dyssynchrony). The myocardial performance index in both ventricles was also evaluated.</p> <p>RESULTS:</p> <p>The APTE and CPAH groups had reduced ventricular performance (LV myocardial</p>			

performance index, 0.40 ± 0.10 , 0.66 ± 0.18 [$P < .05$ vs controls], and 0.58 ± 0.19 [$P < .05$ vs controls] in the control, APTE, and CPAH groups, respectively) and large mechanical dyssynchrony (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) in both ventricles. 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.

CONCLUSIONS:

Pathophysiologic mechanisms that regulate ventricular performance vary depending on whether the ventricles are exposed to acute or chronic right ventricular pressure overload.

本研究において市川は、右室後負荷増大時の左室機能障害に、急性期には心室中隔の奇異性運動を介した左室同期不全が、慢性期には右室リモデリングを介した左室偏平化が強く関与することを明らかにし、左室充満障害よりもむしろ心室間相互作用が左室機能障害の主因であることを示唆した。よって本論文は、右室後負荷増大時の病態を理解するうえで学術上極めて有益であり、学位論文として価値あるものと認めた。

【掲載雑誌名および著者名】

掲載雑誌名

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著者名

Kazuhide Ichikawa, Kaoru Dohi, Emiyo Sugiura, Tadafumi Sugimoto,
Takeshi Takamura, Yoshito Ogihara, Hiroshi Nakajima, Katsuya Onishi,
Norikazu Yamada, Mashio Nakamura, Tsutomu Nobori, Masaaki Ito

