



PRESS RELEASE
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**STUDY DEMONSTRATES SIMULTANEOUS CARDIAC 4-CHAMBER STRAIN
ANALYSIS WITH ECHO MAY IMPROVE EVALUATION OF DISEASES THAT
AFFECT CHAMBERS DIFFERENTLY**

***Novel Method of All Chamber Simultaneous Visualization and Analysis With
EchoInsight® May Improve Functional Assessment of the Heart***

Ann Arbor, MI , March 3, 2016 – Epsilon Imaging, Inc., a visualization and analysis software provider transforming cardiac diagnostic workflow, today announced a paper from a team comprised of researchers and clinicians at the University of Chicago Medicine and University of Occupational and Environmental Health Japan including Lang, Roberto, Addetia, Karima, Takeuchi, Masaaki, et al. entitled, "[Simultaneous Longitudinal Strain in All 4 Cardiac Chambers: A Novel Method for Comprehensive Functional Assessment of the Heart.](#)" was published in a recent issue of *Circulation: Cardiovascular Imaging*.

The research team's goal was to study longitudinal strain (LS) with 2D speckle tracking obtained simultaneously from all 4 cardiac chambers in healthy subjects to gain insight into interchamber functional relationships. The study included 259 healthy subjects (age 44±15; 118 men) and an apical 4-chamber view with all 4 cardiac chambers in the same sector. 2D speckle-tracking echo was performed in all 4 chambers in the same cardiac cycle, while considering the interventricular septum as part of the left ventricle and including the interatrial septum in the LS measurements for both atria. LS was measured over time using EchoInsight resulting in peak LS and time-to-peak strain. Strain curves of the right ventricle and atrium were larger in magnitude than those of the left ventricle and atrium, and time-to-peak values were shorter. LS for the ventricles peaked earlier than the LS for the corresponding atria. Peak systolic LS values were larger in magnitude in women than in men. For both atria, LS declined with age and time to-peak increased. Left ventricle LS declined minimally with age, but right ventricle free-wall LS augmented with age until the sixth decade.

"This study concluded simultaneous measurement of longitudinal strain can provide valuable new insights into interchamber relationships," said Roberto M. Lang, MD at University of Chicago Medicine. "This new tool may prove useful in evaluating diseases that affect cardiac chambers differently. Assessment of the interchamber functional relationships in different cardiac diseases states, such as patients with heart failure, pulmonary hypertension, restrictive and infiltrative cardiomyopathies, and ischemic heart disease may improve the way we interpret and monitor these populations."

About Epsilon Imaging

As a provider of workflow enhancing solutions for cardiology, Epsilon Imaging is transforming cardiac diagnostic workflow with a vendor neutral suite of visualization and analysis software applications designed for echocardiography. EchoInsight provides clinical applications for improved quantification of the heart with clinical strain imaging. Applications assist clinicians to enhance, standardize, and streamline interpretation and monitoring of echo studies. Learn more by visiting epsilon-imaging.com.

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