New Study Develops Cutting-Edge Echocardiography Method for Diagnosis of Acute Coronary Syndromes

Portland, OR: Researchers have announced the results of a study which used a novel echocardiographic technique to detect and quantify damage to heart muscle even after an episode of mild cardiac injury from ischemia (low blood flow to the heart) has resolved. These findings provide hope for detecting potential heart attack victims before they experience life-threatening symptoms.

“The ability to detect heart damage due to low blood flow that occurs downstream from a coronary blockage is key to the early diagnosis of heart attack or for identifying patients who are at very high risk for heart attack,” said Primary Investigator Brian H. Mott, MD. Dr. Mott is a Cardiology Research Fellow at Oregon Health and Science University in Portland, OR; he and his colleagues used myocardial contrast echocardiography with custom-designed microbubble contrast agents, which can be injected through a simple I.V. and then bind to injured tissue to detect molecular changes that occurred up to six hours after very brief reduction in blood flow. “At issue is that our clinical tools for diagnosing threatened heart attack are far from perfect,” Dr. Mott commented. “Our approach using ‘smart’ targeted microbubbles could allow the clinician to detect problems at the bedside in just minutes. Moreover, the technique works to detect injury long after it has resolved and can be used to help judge patient risk according to the size of the area that is jeopardized by low blood flow.”

Researchers on the study, Myocardial Contrast Echocardiography Molecular Imaging with Phosphatidylserine-enriched Microbubbles for Detection and Spatial Quantification of Myocardial Ischemia, included Brian H. Mott, William H. Packwood, Brian P. Davidson, and Jonathan R. Lindner from Oregon Health and Science University in Portland, OR.

A poster based on the results of the study will be displayed on Sunday, June 22 from 9am until 4pm. Presenters, including Dr. Mott, will attend their posters in the Poster and Exhibit Hall from 12-1 pm at the American Society of Echocardiography (ASE) 25th Annual Scientific Sessions at the Oregon Convention Center, Portland, OR. To schedule an interview with Dr. Mott, please contact Andie Piddington by Friday, June 20. For on-site media inquiries please go to the Registration Desk or contact Robin Wiegerink.

As the largest global organization for cardiovascular ultrasound imaging, the American Society of Echocardiography (ASE) is the leader and advocate, setting practice standards and guidelines. Comprised of over 16,000 physicians, sonographers, nurses, and scientists, ASE is a strong voice providing guidance, expertise, and education to its members with a commitment to improving the practice of ultrasound and imaging of the heart and cardiovascular system for better patient outcomes. For more information about ASE and the 2014 Scientific Sessions, visit www.asecho.org.