

Multi-year study is largest randomized trial of CAC scanning

This month marked a major milestone for a multi-year study led Daniel Berman, M.D., director of Cardiac Imaging and Nuclear Cardiology at Cedars-Sinai. The Early Identification of Subclinical Atherosclerosis by Noninvasive Imaging Research (EISNER) program saw its final four-year follow-up visit in the study, which included 2,137 subjects.

The program is dedicated to providing an evidence-based assessment of the role of coronary artery calcium (CAC) CT scanning in cardiology practice. This study, called "Study 1" was a randomized clinical trial of asymptomatic subjects at intermediate to high risk of coronary artery disease. The subjects underwent cardiac risk assessments with randomization to having a CAC scan ("Scan Group") or no CAC scan ("No Scan Group").

This is the largest randomized clinical trial of CAC scanning to date. All enrolled subjects were followed for four years to mark changes in medications and risk factor behavior, subsequent cardiac diagnostic and therapeutic procedures, and adverse cardiac events. Four years after enrollment, all subjects, including the "No Scan Group" had follow-up cardiac risk assessment including a CAC scan.

Data analysis is continuing and final results are yet to be reported, but the study has already generated more than 20 peer-reviewed publications and abstract presentations. It also received multiple supplementary grants, including a grant from the National Institutes of Health (1 R21 EB006829-01A2, PI: Damini Dey).

The study represents eight years of study activity involving the Cardiac Imaging Research Team, the Winnick Family General Clinical Research Center, and the Department of Imaging. It is funded by The Eisner Foundation through a series of grants totaling \$4.5 million.

In addition to this main study, the EISNER Study has enrolled more than 20,000 patients undergoing CAC scanning in a data registry. In addition, 1,000 patients who underwent myocardial perfusion SPECT imaging were recruited to have a research CAC scan to evaluate the relationship between coronary artery calcium and myocardial ischemia.

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