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SOCIETY OF CARDIOVASCULAR COMPUTED TOMOGRAPHY (SCCT) SUPPORTS DOSE-REDUCTION TECHNIQUES AS OUTLINED IN JUNE 10, 2009 *JAMA* ARTICLE – RADIATION DOSE FROM CARDIAC COMPUTED TOMOGRAPHY BEFORE AND AFTER IMPLEMENTATION OF RADIATION-DOSE REDUCTION TECHNIQUES

Washington, D.C. (June 10, 2009) ─ A study conducted at the Michigan Advanced Cardiovascular Imaging Consortium (ACIC) monitored radiation doses of 4,995 patients receiving cardiac computed tomography (CT) angiography scans over a one year period between July 1, 2007, and June 30, 2008. By providing oversight and instructing fifteen participating hospitals in a best practice model for data acquisition, researchers found they were able to reduce the median dose of radiation from a cardiac CT angiography scan by 53.3 percent. The results of the study, published in the June 10 issue of *The Journal of the American Medical Association* (*JAMA*), echo the sentiment of the Society of Cardiovascular Computed Tomography (SCCT), which espouses that by using the proper techniques, cardiac CT angiography can be safely performed with a relatively low radiation exposure.

Dr. Gilbert L. Raff of William Beaumont Hospital, Royal Oak, Mich. and colleagues used a data registry to monitor the tests performed in patients undergoing cardiac CT angiography for suspected coronary artery disease (CAD) at sites throughout the state of Michigan. Through a process of feedback to the sites about their studies, Dr. Raff and colleagues achieved marked reduction in radiation dosage by identifying and implementing practices for lowering radiation doses, including minimizing scan length, heart rate reduction, tube current

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modulation and reducing peak tube voltage in normal weight patients. The researchers saw a continuous decline in radiation dose over the course of the study without any negative impact on image quality.

"Cardiac CT has several technical ways in which we can tailor radiation dosage to the circumstances encountered with each individual patient," said cardiac imager, Daniel S. Berman, MD, SCCT president and Chief of Cardiac Imaging at Cedars-Sinai Medical Center. "The study by Dr. Raff and his colleagues documents that facilities of all kinds are able to adopt these methods and dramatically lower radiation dose of cardiac CT."

Recently published SCCT Guidelines for the Interpretation and Reporting of Coronary Computed Tomographic Angiography and the subsequent Guidelines for the Performance of Coronary Computed Tomographic Angiography encourage measuring the radiation doses received by individual cardiac CT angiography patients and periodic review of grouped radiation dose values by a supervising physician for quality control purposes. Berman noted, "These guidelines serve to standardize practice in the cardiac CT community on how to appropriately perform, interpret and report cardiac CT scans, including providing recommendations for methods to avoid unnecessarily high radiation exposure."

Cardiac CT angiography is the most accurate and cost-effective non-invasive diagnostic imaging test for the detection of coronary artery disease – the number one killer of men and women in this country. Reducing the radiation exposure with this important test is likely to reduce one of the barriers to widespread adoption of this important method.

The Society of Cardiovascular Computed Tomography (SCCT)

The Society of Cardiovascular Computed Tomography (SCCT) is the recognized representative and advocate for physicians, scientists, and technologists who work in the field of cardiovascular computed tomography. With nearly 4000 members, SCCT is nationally and internationally viewed as the principal organization committed to the further development of cardiovascular computed tomography through research, education, quality and advocacy.

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