

Large study illustrates cardiac CT can effectively assess coronary artery disease

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Cardiac CT can effectively assess coronary artery stenosis, according to a large study performed at Leiden University Medical Center in Leiden, The Netherlands.

The study consisted of 1,331 patients who had suspected coronary artery disease with 50% or more stenosis. 10,561 coronary artery segments were analyzed during the study. "We found a 98% sensitivity rate for detecting significant coronary artery stenosis in our patients; specificity was 91%," said Lucia J.M. Kroft, MD, and Alexander Meijer, MSc, lead authors of the study.

"The results indicate that in patients with an intermediate clinical probability of coronary artery disease, cardiac CT scans may avoid the use of invasive catheter angiography. Catheter-based angiography is currently the gold standard for coronary artery evaluation, but it is an invasive technique, has a small percentage of "major" complications and it is relatively expensive," said Drs. Kroft and Meijer.

"Radiologists, cardiologists, their patients, medical policy makers and financial controllers all have a stake in learning about the accuracy and usefulness of computer generated images of the heart. Every year, millions of people worldwide come to the emergency room with acute chest pain," said Dr. Kroft. "Multi-slice CT is increasingly being used as a daily practice in the evaluation of these patients and yet, up until now, its efficacy has not been proven. Our study has made a contribution to that direction," said Dr. Meijer.

Source: American Roentgen Ray Society

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