Coronary CTA: Non-invasive, low cost alternative for 'intermediate risk' patients

1 December 2008

Coronary CTA offers a low cost, non-invasive alternative to conventional angiography for evaluating patients who are suspected of having coronary artery disease; true even if the patients have calcified coronary artery plaques, according to a study performed at the Thomas Jefferson University Hospital, Philadelphia, PA.

The study included 31 patients who had one or more calcified coronary artery plaques that were discovered during coronary CTA. Calcified plaques in the arteries were graded as small, moderate or large. Initially the accuracy rate of determining the degree of stenosis caused by the larger calcified plaques was 67%. The study is ongoing and "now with further experience, the accuracy rate of determining the degree of stenosis with larger plaques is 72%," said David C. Levin, MD, lead author of the study.

"Patients who have calcified plaques in their coronary arteries can be evaluated accurately using coronary CTA. The procedure is non-invasive, cheaper and does not require hospitalization. Using coronary CTA you can look at a patient's arteries from an infinite number of angles and look at cross sections of vessels. With conventional angiography, the patient usually is admitted to the hospital and the arteries are only visible from 7 to 10 different angles," said Dr. Levin.

Coronary CTA is recommended for patients with an intermediate risk of coronary artery disease. "A good candidate is somebody who has an atypical chest pain pattern; chest pain that comes and goes during the day, night, exercise, rest etc. Family history, high cholesterol, diabetes, smoking and hypertension also play a big factor in the determining risk category," said Dr. Levin.

Source: American Roentgen Ray Society