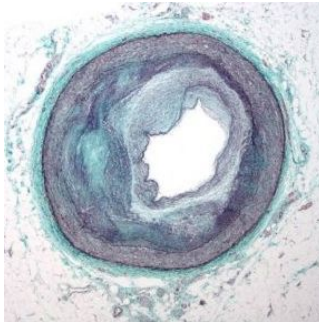


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## Diagnostic Imaging Can Rule Out CAD in Low-Risk Patients



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According to Dutch researchers, coronary computed tomography angiography (CCTA) combined with calcium scoring can noninvasively rule out coronary artery disease (CAD) in about half of women with atypical chest pain who are at relatively low risk for CAD. Their study, published in *Journal of Women's Health*, shows that the combined method is a good first-line diagnostic tool for women, in whom CAD often presents as atypical chest pain and reduced radiation exposure to breast tissue is emphasised.

The study was carried out by a research team from Medical Center Alkmaar (Alkmaar, The Netherlands) led by Friso van der Zant, MD, PhD. The team reviewed and analysed results of CCTA — a well-established, sensitive method of visualising non-obstructive CAD — and calcium scoring to determine the presence of non-calcified plaques in the coronary arteries, amongst women over an 18-month period.

Based on the results, the researchers concluded that the ability to exclude a diagnosis of CAD in about half of patients, while exposing them to only a modest dose of radiation, can have a substantial impact on patient management.

"In the present study, CCTA excluded CAD in 51 percent of the studied cohort and led to changes in patient management in 53 percent," Dr. van der Zant and co-authors write in the journal report. The effective dose from CCTA combined with calcium scoring was substantially lower than 10 mSv in the current study.

The lifetime risk of developing fatal cancer from radiation received from medical imaging examinations with an effective dose of 10 mSv, the researchers note, is estimated to be 1 in 2000, which is >10-fold lower than the lifetime risk of dying in a motor vehicle accident (1 in 108 in the U.S.) and also lower than dying in a pedestrian accident (1 in 749).

Susan G. Kornstein, MD, Editor-in-Chief of *Journal of Women's Health*, Executive Director of the Virginia Commonwealth University Institute for Women's Health, Richmond, VA, and President of the Academy of Women's Health, comments on Dr. van der Zant's findings: "This study suggests that CCTA combined with calcium scoring is a useful diagnostic tool for excluding coronary artery disease in women with atypical chest pain, with minimal concerns about radiation exposure."

Source: [Journal of Women's Health](#)

Image credit: Wikimedia Commons

Published on : Mon, 17 Aug 2015