should be considered as an option when selecting an appropriate screening test for coronary artery disease in elderly patients.

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| 113 | **CORONARY CT ANGIOGRAPHY: A USEFUL DIAGNOSTIC MODALITY IN THE ELDERLY?** |

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Objective To establish for the first time whether CT coronary angiography (CTCA) is a useful screening investigation for coronary artery disease in the elderly.

Background CTCA is an effective diagnostic tool as reflected by its inclusion in consensus guidelines (1). Elderly patients present a significant proportion of those screened for coronary artery disease and this is set to increase (2). However, due to the greater burden of coronary calcification with advancing age (3), there is often reluctance amongst clinicians to select this modality for elderly patients due to the perception that images are likely to be non-diagnostic. Our study aims to determine whether the exclusion of elderly patients from CTCA is justifiable by establishing its diagnostic utility in this demographic.

Method Patients aged over 70 years and screened for coronary artery disease using 320-detector CT at our institution between 2009 and 2012 were analysed retrospectively. CTCA examinations performed for other purposes and those with previously documented coronary artery disease were excluded from analysis. Studies were designated as either showing obstructive coronary artery disease, non-obstructive atheroma or normal arteries if reported without uncertainty at the time of imaging. Individuals who then underwent invasive coronary angiography were followed to confirm the positive predictive value of CTCA in the population studied.

Results Of the 886 CTCA examinations in the elderly conducted over the analysis period, 321 studies met the inclusion criteria. The median patient age was 74 years and atrial fibrillation was present in 10% of subjects at the time of imaging. 83% of studies were diagnostic, with obstructive atheroma excluded in 59% patients. The positive predictive value of obstructive atheroma was 89% when compared with invasive angiography. With non-diagnostic studies included in this group, the positive predictive value of a non-negative test was 74%.

Conclusions CTCA is a useful diagnostic test in the elderly. Obstructive atheroma was excluded in the majority of patients screened for coronary artery disease with an acceptable positive predictive value. Concerns that extensive calcification precludes use of this technique in the elderly are therefore unfounded and CTCA