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## Evaluation of diagnostic efficacy of vessel specific coronary calcium score in detection of coronary artery stenosis with usage of invasive angiography as gold standard

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Coronary computed tomography angiography (CCTA) is a beneficial method for detection of coronary artery disease. In this study, we investigated diagnostic accuracy and predictive value of vessel specific calcium scoring in detection of coronary stenosis by using 128-slice computed tomographic angiography (CTA) scanner. We used invasive angiography (IA) as the gold standard. 71 patients who had undergone both 128-slice CTA and IA were enrolled in the study. Three threshold for stenosis were considered (normal versus any kind of stenosis, stenosis<50% vs. >50%, stenosis<70% vs. >70%) in four major epicardial coronary arteries. Mean calcium score and p-values were compared between these three groups of stenosis by T-test and Mann-Whitney test. ROC analysis was done for evaluation of sensitivity/specificity, positive predictive value (PPV) and negative predictive value (NPV) of vessel specific calcium scoring method. There was a significant positive correlation between calcium score and coronary artery stenosis in our study. The p value of this correlation for LAD in normal versus any kind of stenosis, stenosis<50% vs. >50%, stenosis<70% vs. >70% was 0.004, 0.005 and 0.001 respectively. For RCA, it was 0.001, 0.001 and 0.00 respectively and for LCX 0.02, 0.003 and 0.017 respectively. In ROC analysis, we detected that by increasing in stenosis from normal to >70%, we had higher sensitivity, specificity and NPV in LAD, RCA and LCX arteries. Coronary artery calcification score is a good predictive and diagnostic method for coronary stenosis evaluation; however, it's not enough in the case of high risk patients because it does not achieve 100% NPV.

### Biography

Shahriari Mozhgan completed her study from Babol University, Iran. She has worked as a Researcher in the Radiology Research Center of Tehran University for six months and now she is working as a General Practitioner at her office.

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**Notes:**

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