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Purpose- The deposition of coronary artery calcium is closely associated with atherosclerotic plaque formation. The usefulness of calcium scoring is not well established clinically. Multislice detector computed tomography can be used to measure calcium score noninvasively. The purpose of this study is to estimate the ability of zero or low calcium score to predict the presence of significant coronary artery stenosis. **Method-** In this study, coronary calcium scoring and angiography by MDCT (VCT, GE healthcare, Milwaukee) were performed in 1412 consecutive patients with clinically suspected coronary artery disease. Coronary calcium scoring were calculated on a work station (Advantage workstation, GE healthcare, Milwaukee). Patients with previous CABG and stent insertion history were excluded. **Results-** 1412 patients underwent 64-slice computed tomographic coronary angiography, 112 patients with history of CABG and stent insertion were excluded. A total of 1300 patients were included in this study. 598 patients had zero calcium score and 400 patients had calcium score below 100. Patients with zero calcium score were younger. Sex, BMI, age, hypertension and hyperlipidemia showed significant difference as compared with patients with score of 1-100. But smoking did not reveal significant difference. **Conclusion-** Low calcium score (less than 100) cannot be used to exclude the presence of significant coronary artery disease. Low calcium score does not excluded the necessity of further evaluation.