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CORONARY ARTERY CALCIUM BY COMPUTED TOMOGRAPHY SCAN IN THE ASSESSMENT OF CARDIOVASCULAR RISK: A DESCRIPTIVE STUDY.

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BACKGROUND: To evaluate the efficacy of coronary artery calcium (CAC) by computed tomography in the assessment of coronary risk compared with the Framingham functions.

METHODS: We calculated the coronary risk in patients without known atherosclerosis using the European Task Force 1998 (ETF) function and SCORE. CAC was measured in all patients.

RESULTS: We included 331 patients (54 years old, 89% men) in the study, 41.1% of whom had CAC [mean coronary score calcium 96 (214SD)]. If we accept that a coronary score calcium < 1 means low risk and scores > 100 means high risk, SCORE and TFE would be correctly classified as high risk in 45.0% and 38.3%, respectively, of patients with coronary score calcium >100. The relationship between CAC and calculated risk with the SCORE and TFE functions were: k=0.33 ($p<0.05$) and k=0.28 ($p<0.05$). Sex, age, smoking habit and familial coronary heart disease were related to detection of coronary calcium.

CONCLUSIONS: The measurement of CAC has demonstrated coronary calcium in 41.1% of patients. The detection of patients with coronary score calcium > 100 would permit reclassification as high risk of 10.4% of patients evaluated with SCORE and 11.6% evaluated with TFE, increasing the number of high-risk individuals considered as candidates for intensive risk factor treatment.

Keyword: atherosclerosis, coronary disease, calcium tomography