Coronary calcium score from multislice computed tomography correlates with QT dispersion and left ventricular wall thickness.

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摘要

Abstract

Coronary calcium score is a marker of coronary atherosclerosis and is an important factor of cardiac events. Ventricular hypertrophy and QT dispersion increase the risk of cardiac events. The purpose of the study was to investigate whether coronary calcium score may be related to the changes of QT, QT dispersion, heart chamber size, and wall thickness. The coronary calcium score was studied in 97 patients through multislice computed tomography (MSCT). There were 32 patients with high calcium score (≥200), 29 patients with low calcium score (1 − 199), and 36 patients with zero calcium score. The gender, age, incidence of hypertension, diabetics, smoking, and dyslipidemia were similar among the three groups. The QT dispersion, QTc dispersion, and R-wave amplitude in the high calcium score group were larger than those in the other two groups. There were similar P-wave duration. QRS duration, and PR interval among the three groups. The left ventricular anterior-posterior diameter and left ventricular wall thickness in the high coronary calcium score group were larger than those in the other two groups. Coronary calcium score had strong correlations with QT dispersion and left ventricular wall thickness. These findings may contribute further evidence regarding the increased risk of cardiac events in those patients with high coronary calcium score.

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