

Impact of Hypertension Duration on Coronary Calcium Score in Patients With Low To Intermediate Pretest Probability for Coronary Artery Disease

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BACKGROUND:

Hypertension duration has been tested as a predictor for coronary atherosclerosis in patients without known coronary artery disease (CAD) by non-invasive modality which is coronary computed tomography angiography (CCTA)

OBJECTIVE:

We investigated the association between hypertension duration and the extent and severity of CAD and calcium scoring using CCTA in patients presenting by chest pain with low to intermediate pretest probability (PTP).

METHODS AND RESULTS:

We analysed 90 patients with low to intermediate PTP who underwent CCTA due to chronic stable angina. All patients were controlled for their blood pressure on medical treatment. Neither of them were diabetic nor

dyslipidemic. Patients were investigated for the duration of their hypertension. Coronary calcium score (CACS) was calculated for all patients. Correlation was done between the duration of hypertension and coronary calcium score.

There was a highly significant positive correlation between the duration of hypertension and the degree of CACS (P=0.002).

CONCLUSION:

In patients with chronic stable angina with low to intermediate PTP, longer hypertension duration is associated with a higher coronary calcium score. Hypertension duration is an important determinant of atherosclerosis regardless of the control of blood pressure.