

Value of Multi-Slice CT Coronary Angiography in Assessment of Remodeling Index in Low to Intermediate Risk Chronic Stable Angina Patients

Shaimaa A. Mostafa, Tarek aboelazem, Osama Sanad, Haytham Abdelghafar, Ahmed Azam

OBJECTIVE:

Evaluation of coronary artery remodeling index in patients with low to intermediate risk chronic stable angina by MSCT coronary angiography.

PATIENTS AND METHODS:

single center, cross-sectional, observational study included 150 patients with low to intermediate risk chronic stable angina with normal resting ECG, sinus rhythm, normal systolic function by 2D echocardiography (EF>50%) and without regional wall motion abnormality at rest were referred to MSCT evaluation of the coronary artery tree

RESULTS:

The mean age was 56.8 ± 6.4 y, 83.3% had one vessel disease and 16.7% had two vessel diseases. The mean remodeling index (RI) was 1.04 ± 0.28 and there was statistically significant positive

correlation between RI and cholesterol, triglyceride, LDL, duration of DM, HBA1c and plaque burden ($P<0.001$) and statistically significant negative correlation with HDL ($P<0.001$). By linear regression analysis; diabetes mellitus, serum cholesterol and plaque burden% were predictors of higher RI ($P<0.001$). Patients with remodeling index >1 were diabetic, hypertensive, smoker, with longer duration of diabetes mellitus, higher HBA1c, cholesterol, triglyceride, LDL, plaque burden and lower HDL ($p<0.001$).

CONCLUSION:

MSCT coronary angiography was able to detect early changes in the wall of coronary artery and emphasizes on the proper control of modifiable risk factors as was associated with positive remodeling.