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عنوان البحث

**Accuracy of Clinical Symptoms, Electrocardiographic and Echocardiographic Parameters for Diagnosis of Significant Proximal Right Coronary Artery Lesion in Acute Inferior Wall Myocardial Infarction**

الملخص الانجليزي

**Background:** Patients with inferior wall myocardial infarction (IWMI) associated with right ventricular (RV) infarction have much higher rates of adverse events. **Aim:** To detect accuracy of clinical and ECG findings, echocardiography and tissue Doppler (TDI) as predictors of proximal right coronary artery (RCA) stenosis as a culprit lesion in inferior wall myocardial infarction. **Methods:** In a prospective study patients with first episode of acute IWMI underwent early conventional and tissue Doppler echocardiographic assessment (within 24 h) of symptom onset and RV indices ; Tricuspid annular systolic plane excursion(TAPSE), myocardial performance index (MPI) and tissue Doppler velocities from RV free wall were measured. Patients underwent coronary angiogram within one month. Our patients were divided into two groups (A,B) according to angiographic findings based on the presence (A) or absence (B) of a significant proximal RCA stenosis. **Results:** There were 35 patients with first episode of IWMI, group A (n =14 patients) and group B (n =21patients), There were significant differences between groups in TAPSE (1.28cm vs 1.98 p < 0.001), MPI-TDI (0.69±0.12 vs 0.38±0.05 p < 0.001), and in S'velocity from RV free wall ( 0.09m/s±0.02 vs 0.12m/s ±0.02 p < 0.001). It was found that S'0.55 had a sensitivity of 92.86 % and a specificity of 100%, 100% PPV and 95.45% NPV. TAPSE <16mm had a sensitivity of 93%, and a specificity of 100%. **Conclusion:** RV indices (S' velocity, MPI-TDI and TAPSE ) are useful in predicting proximal RCA as infarct related artery in IWMI.