

The Clinical Significance of Conditions Presented by ECG Changes Mimicking Acute MI *Yahalom, Malka¹; Roguin, Nathan²; Turgeman, Yoav¹*

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The ECG is of critical importance in the diagnosis of AMI. Clinical conditions such as acute pericarditis, esophageal rupture, subarachnoid hemorrhage, hypothermia and pneumothorax, result in ECG changes that include: ST elevation and T wave inversion.

The purpose of this report is to increase the awareness of those non-coronary syndromes, with ECG abnormalities mimicking AMI, and thus avoiding unjustified intervention procedures or therapy. We present 6 patients with different clinical conditions and with ECG changes mimicking AMI:

A 62-year old female after epileptic seizures and pathological EEG pattern. The ECG was suggestive of evolving AMI. Troponin I and coronary angiography were normal.

An 18-year old female who suffered acute perimyocarditis, ventricular fibrillation and ECG changes mimicking AMI, while coronary arteries were patent.

A 35-year-old schizophrenic female, who was admitted to CCU with severe hypothermia and shock, bradycardia and ST-T changes mimicking AMI. A 78-year old female with known colon cancer, was admitted six days following 5FU chemotherapy, with ECG changes, but no clinical or biochemical evidence of AMI.

A 57-year old male was admitted after anaphylactic shock following a bee-sting that was treated with Adrenaline and Corticosteroids. The ECG demonstrated a transient ST-elevation in the anterior wall, with no clinical or biochemical evidence of AMI. Cardiac CT demonstrated normal coronary arteries.

A 48-year old female was admitted following a few days of chest pain, after a death in the family. On ECG there was a Q wave in v1-v2. Coronary-arteriography was normal. Left ventriculogram documented apical ballooning, typical of stress-induced cardiomyopathy.

We conclude, that prompt and correct diagnosis based on clinical data and serial ECG is crucial in patients with conditions that may be confused with AMI. Otherwise, these patients are liable to be subjected to unnecessary intervention procedures or therapy.