Research Paper Medical Science

Prognostic Significance of Terminal Qrsdistortion on Admission Ecg in Acute Myocardialinfarction (A Study Of 100 Cases)

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KEYWORDS

Introduction :
Coronary artery disease, particularly AMI is the commonest cause of adult morbidity and mortality in developed as well as in developing countries. It is not easy to predict prognosis following AMI, because of constant danger of sudden or unexpected death. Various parameters having prognostic significance in AMI are age, sex and associated other systemic disorders (Diabetes Mellitus, hypertension etc.) as well as site of infarction and presence of complications. Above these, 12-leads electrocardiogram carries important prognostic information. Recently it has been reported that distortion of terminal portion of QRS on admission may provide an early estimation of infarct size and prognosis.

Aims & Objectives :
The aims of this study were :
- To investigate the relationship of distortion of terminal portion of QRS to prognosis in patients with AMI
- To find out ECG patterns associated with poor prognosis and higher mortality.
- To know the extent to which admission ECG can help in predicting prognosis in AMI as it is universally available, noninvasive & inexpensive.

Materials & Methods :
Present study includes 100 patients of AMI admitted in medical wards of Gujarat Adani Institute of Medical Science and Jiya Hospital from January 2014 to January 2015 having either two criteria of these three:

- Typical chest pain > 30 minutes.
- ECG changes according to WHO guidelines.
- Raised serum enzymes.

Patients with various conductions defects chest pain > 12 hours of duration, any contraindication to thrombolysis therapy, any other serious illness, with flat or inverted T waves in leads showing ST segment elevation or ventricular hypertrophy were excluded. Group A includes patients with terminal QRS distortion (QRS+ve) & B without QRS distortion (QRS-ve).

Observation & Conclusion :
- Majority of patients were between 51-60 years of age, out of which 79 were male.
- No significant difference was found regarding distribution in site of MI in both the group.
- The mean ST elevation was significantly higher in group A (19.24+12.1) than group B (13.27+438).
- Complications were higher in group A. LVF was 48% in group A & 22% in group B. Ventricular arrhythmias was 20% in group A & 00% in group B.
- Similar results were found only in patients with anterior wall MI&not in inferior wall MI. No difference in occurrence of re-infarction, post –infarction angina & AV Blocks were noted in two groupas.
- Incidence of mortality in Group A was 20% while in B was 4% only Other factors like Anterior wall MI & age > 60 years were also associated with high mortality.

Distortion of terminal portion of the QRS complex in the admission ECG is an important predictor of increased complication & mortality rate especially in patient with anterior wall MI.
- Using simple ECG sign, it is easy to identify a subgroup of AMI patients with trend towards worse prognosis and who needed more close observation and attention.