

## **Conduction System Alterations in Acute Extensive Anterior Myocardial Infarction**

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### Background:

Extensive anterior MI may be complicated by alterations in the conduction system, resulting in bradyarrhythmias. These alterations may affect the QRS morphology and ST-T segment, and thus may delay or interfere with early recognition and therapy. We sought to investigate the prevalence of conduction abnormalities in these patients and the effect of reperfusion therapy.

Methods: We identified 74 consecutive patients admitted to the ICCU with extensive anterior STEMI between January 2005 – October 2007. ECG was performed upon admission and after reperfusion therapy.

### Results

: Of the 74 patients (59 males, 15 females, age 25-85 years). 28 (37.8%) had conduction system alterations. Three (4%) had LBBB, in 2 it persisted after reperfusion. Fifteen (20.2%) had RBBB, in 8 (10.8%) it remained after reperfusion. In 5 (6.7%) IRBBB was observed, in 4 (5.4%) it persisted after reperfusion. In 3 patients (4%) LAHB, in 2 still remaining after reperfusion. In 3 (4%) RBBB+LAHB was present and it persisted after reperfusion. Complete AV Block occurred in 1 patient. LVEF in all patients with conduction abnormalities was lower than similar patients without conduction disturbances and their in-hospital mortality rate was higher.

### Conclusions

: Conduction system alterations in patients with acute extensive anterior MI are more frequent than previously recognized. Their presence, and in particular their persistence after reperfusion therapy is associated with worse prognosis.