CARDY-54

DISPERSION OF VENTRICULAR REPOLARIZATION IN THE FIRST HOURS OF ACUTE MYOCARDIAL INFARCTION

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OBJECTIVES: The goal of our study was to identify the importance of dispersion of ventricular repolarization in predicting the course of the acute phase of myocardial infarction and initial effectiveness of thrombolytic therapy in patients with Q-wave myocardial infarction during the first 6 hours after the onset of heart attack.

For this purpose, 94 patients were enrolled and divided into three groups: 1 – patients with acute myocardial infarction (54±6.5 age group) (n=54); 2 – patients who died due to ventricular fibrillation within 8±5 hours after the onset of the attack (60±6 age group) (n=25); 3 – control group of healthy individuals without myocardial ischemia (48±7 age group) (n=15).

METHODS: Immediately after hospitalization the patients were given thrombolytic therapy (aspirin, heparin and streptokinaza).

Twelve-lead ECG at a speed of 25 mm/sec was performed in order to study QT interval dispersion (QTd), representing the difference between minimum and maximum values of the QT interval. Variability of QT interval in precordial leads (QTdl), defined as the difference between adjacent leads in duration of QT interval, was studied separately.

RESULTS: The study showed that QTd and QTdl based on 12-lead ECG could be used for assessment of the risk of malignant arrhythmias and the effectiveness of thrombolytic therapy in patients with acute Q-wave myocardial infarction.

CONCLUSIONS: Based on the study results, it can be concluded that the values of QTd and QTdl may be predictors of malignant arrhythmias during the first hours of myocardial infarction. Qd and QTdl are markers of successful thrombolytic therapy.

Key words: QT interval dispersion; Variability of QT interval in adjacent precordial leads, Thrombolytic Therapy.