SUMMARY

There is a growing interest in QT dispersion as a marker for arhythmia potential being a marker of inhomogenicity of ventricular repolarization. The QT dispersion is increased in myocardial ischaemia and infarction, and levels are higher in patients with ventricular arrhythmias.

This study was performed to assess QT dispersion in patients with acute myocardial infarction treated with thrombolytic therapy versus conventional therapy and to correlate it with hospital prognosis.

The study included 50 patients and 25 normal subjects who are well matched with the patients as regards age and sex, the patients are divided into two groups:

1. Group I: including 25 patients who received thrombolytic therapy.
2. Group 2: including 25 patients who did not receive thrombolytic therapy.

Every patient was subjected to full history taking and thorough clinical examination. Analysis of serum Na, K and Ca was done and cases showing abnormal results were excluded. Serum C.P.K. was checked on admission and on discharge.

ECG was done for every patient on admission, 2 hours post-streptokinase and predischarge in group 1. In group 2, ECG was done on admission and predischarge.

The study concluded that:

1. There is a statistically significant reduction in QT dispersion in patients treated with reperfusion therapy.
2. There is reduction in the incidence of ventricular arrhythmias in patients with reperfusion therapy associated with the reduction in the QT dispersion. So, reduction of QT dispersion may be a mechanism of benefit of thrombolytic therapy.
3. QT dispersion is increased after myocardial infarction and levels are higher in patients with ventricular arrhythmias.
4. QT dispersion does not depend on age, sex, smoking and infarct site, but increased by hypertension and diabetes.

The study recommended the following:

1. Whenever not contraindicated, thrombolytic therapy should be administered to cases of AMI.
2. QT dispersion can predict the potential for ventricular arrhythmias in patients with AMI.
3. Future studies are needed to confirm the value of QT dispersion in risk stratification after AMI.