Summary and Conclusion

Acute myocardial infarction is still a major public health problem despite the impressive stride in diagnosis and management. Furthermore, the early and accurate diagnosis with the proper management of this major event is an important challenge for improving the outcome and survival of this syndrome.

It is important to be able to predict the outcome in patients with evolving acute MI; ideally, such assessment should be simple, quick, and noninvasive.

The electrocardiography is a bedside method of examination, available in all hospitals, easy to use, cheap, without risk, easy to be analyzed by physicians, and is suitable for repeated use during short and long term follow up, so if we can predict from the electrocardiogram the outcome of patients with evolving acute MI, it will be helpful for decisions making regarding the therapeutic strategy in the early stage of acute MI.

This study assessed the value of ST-segment changes in the various electrocardiographic leads during evolving inferior MI in predicting the location of the RCA obstruction.

The study included 50 patients, 42 males, 8 females, with age ranged from 31 to 72 years with mean + SD =49.63+ 10.13 years. They had been admitted to the CCU suffering from inferior wall acute ST-segment elevation MI.

All patients were subjected to

1-Full history taking.

2- Full clinical assessment.

3- Standard 12 leads and right chest leads resting ECG.

4- Serial cardiac enzymes.

5- Laboratory tests as lipid profile, blood sugar, liver and kidney function tests.

6- Coronary angiography was done to all patients to detect site, severity of luminal narrowing, and TIM) flow scoring.

According to angiographic results patients were classified into:-

Group I (27patients): those having RCA obstruction before the right ventricular artery (proximal RCA).

Group II (23patients): those having RCA obstruction after the acute marginal artery (distal RCA).

The results of both the electrocardiogram and the coronary angiography were tabulated, statistically analyzed to find the relation between them.

We were able to find a cut off point at which depression more than 1.2 mm in aVL was very sensitive and specific for proximal RCA lesion (sensitivity 92%, specificity 85%, PPV 88.5% and NPV 89%).

On the other hand the criterion of ST-segment changes in lead VI (Isoelectric, elevated or depressed) was also assessed, Where isoelectric or elevated ST segment in V1 were found in 81% proximal versus 13% distal with 80.95% specificity, 87.5% sensitivity, 84% PPV and 85% NPV with accuracy 84.44% for detection of proximal RCA lesion So there was a highly significant difference between the two groups regarding the presence or absence of this criterion.