

## **Summary**

Acute myocardial infarction have been accepted as a major source of cardiovascular morbidity and mortality, CMR is a newly identified risk factor for patients with cardiovascular disease and almost there is linear relationship seem to exist between the number of criteria of CMR and mortality from cardiovascular causes .

The metabolic risk factors consist of those factors that seemingly have a direct effect on atherosclerotic disease among these are central obesity, hypertension, insulin resistance and hyperlipidemia.

The aim of this study was to investigate the relationship between cardio-metabolic risk, short term in hospital complication, infarction size which was estimated by the increase in CK-MB and the decrease in EF%, in addition to study extension of coronary artery disease in non diabetic patients with acute myocardial infarction in comparison to patients without CMR .

Eighty non diabetic patients with acute myocardial infarction who were scheduled for coronary angiography were subdivided into 2 groups according to presence or absence of CMR .

In our study we found that non diabetic patients with CMR presented with AMI was associated with increase morbidity, including larger infarction size, higher in hospital complication rates in addition to decrease in EF% and increase extension of CAD when compared to

patients without CMR as regard % stenosis, number of vessels affected, type of lesion and TIMI flow .

Also we found that CMR group was associated with higher number of patients who referred to CABG after their coronary angiography results showed increased number of vessels affection.

Furthermore CMR is highly prevalent among patients with CAD so awareness and preventative measures are important in hopes of improving outcomes in these patients.

Bridging the gap between the therapeutic goals of metabolic risk factors and prevention of CAD will remain a challenge for medical community, so now we believe that the cardio-metabolic risk (CMR) leads to poor cardio-vascular outcomes might be through the extension of CAD in patients with acute myocardial infarction when compared to patients without cardio-metabolic risk (CMR).