**COMPARISON BETWEEN RISK FACTORS AND ANGIOGRAPHIC CHARACTERIZATION OF YOUNG VERSUS OLD PATIENTS WITH STEMI**

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Acute ST elevation myocardial infarction (STEMI) is a fatal presentation of coronary artery diseases although it happens in people > 45 years old, but sometimes occurs in younger people < 40. It is estimate about 2-6 percent in young people in different countries. The mortality and morbidity, emotional stress and its economic burden of this group emphasize to search for underlying risk factors.

*Method*: 234 STEMI patients admitted to Golestan Hospital of Ahvaz, Iran. All was enrolled to two groups according to age less and higher than40 with following criteria : typical chest pain, ECG finding compatible with ST segment elevation, new LBBB and Q wave, high level of cardiac enzymes.34 Patients with post traumatic MI and pericarditis was excluded from study. Clinical evaluation, echocardiography and selected coronary angiography were done for all patients. All risk factors were evaluated including smoking, hypertension , diabetes , hyperlipedemia and family history.

*Results*: Male to female ratio was about 3to 1. Diabetes, hypertension and hyperlipedemia was more common among patients >40 years while smoking and positive familial history was more common in younger than 40 years. (P value <0.05) In patients > 40 STEMI was more common in LAD territory, while in younger had most often one vessel disease without specific culprit vessel but >40 years had 2 or 3 vessel disease.(p value <0.05) Many of patients <40 had normal coronary artery system with thrombus in culprit lesion. *Conclusion*: Main risk factors of STEMI in young patients (<40 year) are smoking and positive family history. Many culprit vessels for STEMI in young age group are normal or minimal lesions.