

P-147

**Possible input of diabetes and smoking cigarettes in confirmation of AMI diagnosis**

Sashka Domazetovska, Danijela Janicevic Ivanovska,, Mirjana Grozdovska Naumoska, Valentina Koloska  
Public Health Institution of Clinical Chemistry,  
Clinical Center Mother Theresa Skopje, R. North Macedonia

**OBJECTIVES:**Influence of diabetes on development of ACS is well known, as well the active smoking that can pose a particular risk in increasing heart muscle ischemia. Several proposed models by international associations, indicate an increased risk and confirmation of the definition of myocardial infarction (MI) with presence of diabetes and cigarettes smoking habit in patients.

**MATERIALS and METHODS:**Our study included 200 patients admitted to the emergency department with symptoms of AMI. Patients samples were submitted for CK, CKMB, TnT, TnI, Myoglobin determination and estimation for presence of diabetes and smoking habit. The obtained data were compared and statistically processed versus group of patients without any of risk factors.

**RESULTS:**We found that 34% of patients has stable/unstable angina, and 49% was diagnosed as MI. Higher percentage of diabetic patients 28.8% has MI compared to 13.4% in patients with angina pectoris. In terms of smoking as a risk factor, 54.6% of patients with MI were active smokers compared to 34.3% in patients with angina pectoris. At diabetic patients MI was confirm with significant upper CK activity (65%), CKMB (56.8%) and TnT concentration (142%). Regarding the smokers, the most significant change was found in higher CK activity (60%) and myoglobin concentration (127.3%) in patients with AMI.

**CONCLUSIONS:**Result shows that those two risk factors can afford valuable data in primary diagnosis along with some sensitive but not most specific parameters such CK and Myoglobin. This attitude is based concerning their effects on metabolic oxygen supply of heart muscle.

**Keywords:** risk factors,myocardial infarction, cardiac markes.