

## POSTERS' SESSION

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## CORONARY HEART DISEASE

**PP.22.01 STUDY OF FREQUENCY OF ACUTE CORONARY SYNDROMES IN PATIENTS PRESENTING WITH CHEST PAIN IN A PRIMARY HEALTH CARE CENTER (PHCC)**

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**Objective:** Ischemic myocardial disease is the most common cardiovascular disease, associated with high morbidity and mortality worldwide. The aim was to study and distinguish acute heart episodes from cases of chest pain, due to other causes, in patients attending a PHCC located in Salamis Island, Greece.

**Design and method:** Among all cases (1380) of chest pain examined during September – December 2013, 220 (15.94%) patients had suspicious symptoms and were referred to further examination and 165 (11.96%) patients appeared with an acute coronary syndrome (ACS). Most participants were aged 61-70 (31.43%).

**Results:** Among the participants, 28.6% had a verified positive family history of coronary artery disease. Some of them (22%) did not comply with their medication regimen and a previous heart episode was mentioned by 15.7%. Only 14.3% had been examined with coronary angiography. Percutaneous Coronary Intervention has been performed to 11.42% and 1.42% had undergone coronary-artery bypass. Risk factors were; hypertension (52.85%), smoking (37.15%), dyslipidemia (27.14%), anxiety disorder (4.28%) and genetics (1.42%). Most of the patients (62.85%) had a typical clinical syndrome while the others appeared without typical clinical manifestations. Electrocardiographic findings consistent with STEMI were found in 32.02% of patients. All patients were treated in respect to the national clinical guidelines and 3 patients (3.3%) had undergone thrombolysis, due to delay for transportation to the hospital. A new Left Bundle Branch Block was apparent in 5.71% of patients. Episodes of unstable angina with ischemic repolarization disorders were recorded in 29.42%. All patients after evaluation and initial treatment were transported to a hospital (57.14%). One patient (1.42%) died.

**Conclusions:** There is a great incidence of acute coronary events in a Greek PHCC. General practitioners, following international guidelines deal with them successfully, despite lacking resources. Initial evaluation and treatment of ACS in a PHCC is of vital importance and contributes to lower morbidity and mortality rates. In regard to prevention, PHCC aims to early diagnose patients with high risk factors for cardiovascular disease.

**PP.22.02 ENDOTHELIAL DYSFUNCTION AND SYSTEM INFLAMMATORY RESPONSE MARKERS IN HYPERTENSIVE PATIENTS WITH ACUTE MYOCARDIAL INFARCTION DEPENDING ON POLYMORPHISM OF ACE (I/D) AND ENOS (894G>T)**

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**Objective:** The aim of the study is to find the dynamics of endothelial dysfunction (ED) humoral factors and systemic inflammatory response (C-reactive protein, CRP) in hypertensive patients with myocardial infarction (MI) under the influence of individualized treatment based on the angiotensin-converting enzyme (ACE) and eNOS genes polymorphisms.

**Design and method:** 15 women (14.7%) and 87 men (85.3%), mean age 60.7±4.25 (22 to 83) participated in the study. Control group consisted of 30 healthy subjects with a corresponding gender and age distribution. Essential hypertension and MI, as well as inclusion and exclusion criteria were based

on ESH and ESC Guidelines. Total stable NO metabolites (NO<sup>2</sup>+NO<sup>3</sup>-) and sVCAM-1 were determined by calorimetric method, CRP – by ELISA. eNOS gene allele discrimination was performed using Ban II (Eco241) restriction endonuclease.

**Results:** Levels of sVCAM-1, NO metabolites and CRP before treatment were 28.9%, 18.6% and 47.1%, respectively higher (p<0.05) in Q-MI patients than in non-Q-MI patients. NO metabolites growth 4.43-4.80 times increased the risk of MI regardless of its type, location and sequence (p<0.001). Raised CRP 2.16 times increased risk of Q-MI (OR=3.75), left ventricular front wall myocardium – 2.77 times (OR=7.79), the primary occurrence – 2.08 times (OR=3.44). Content of NO metabolites decreased more after treatment with thrombolytic therapy in carriers of D-allele of ACE gene (39.1% and 35.2%) and did not depend on the allele status of eNOS gene.

Variable	Before treatment, n=88	27-28 days of treatment, n=44		6 months, n=44
		after TLT, n=24	w/out TLT, n=20	
sVCAM-1, ng/ml	1258.6±97.0	801.0±61.3 p<0.001	844.9±83.2 p<0.001	850.3±102.4 p<0.01
NO/NO <sub>2</sub> /NO <sub>3</sub> <sup>-</sup> , mkmol/l	45.7±4.01	28.8±2.02 p<0.001	34.8±2.76 p<0.01 p<0.05	27.5±4.22 p<0.001 p<0.05
CRP, mg/l	10.3±1.02	4.15±0.97 p<0.001	4.74±1.01 p<0.001	5.08±1.42 p<0.001

**Conclusions:** The presence of DD-genotype of ACE gene is associated with a significantly greater decrease of sVCAM-1 and CRP levels under influence of treatment (better with thrombolytic therapy (TLT), p<0.05); in T-allele carriers of eNOS gene the level of sVCAM-1 under TLT decreased by 30,7-31,2%. NO metabolites decreased stronger in D-allele carriers of ACE gene, also after combined treatment with TLT (39.1% and 35.2%) and did not depend on the allele state of eNOS gene.

**PP.22.03 THE CLINICAL OUTCOME OF TARGET NON-HIGH DENSITY LIPOPROTEIN-CHOLESTEROL (NON-HDL-C) ACHIEVEMENT IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION: A PROPENSITY SCORE MATCHED ANALYSIS**

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**Objective:** Little data is available on the clinical outcome differences of acute myocardial infarction (AMI) patients undergoing percutaneous coronary intervention (PCI) that have or have not achieved target non HDL-C levels. The authors investigated whether target non HDL-C level (below 100 mg/dL) achievement in patients with AMI is associated with a better clinical outcome.

**Design and method:** This large-scale, prospective, multicenter study involved 13,473 AMI patients registered in the Korean Acute Myocardial Infarction Registry (KorMI) between May 2008 and Sep 2012. 12,720 patients survived and 6,746 patients completed 1-year of clinical follow up. Of these 6,746, 3,315 patients received serial lipid profile follow up. Propensity score matching was applied to adjust for differences in baseline clinical and angiographic characteristics, and finally, 1,272 patients (636 target non HDL-C achievers and 636 non-achievers) were included in the present study. The primary end point was a composite of 1-year major adverse cardiac events (MACEs), such as, cardiac death, recurrent myocardial infarction (MI), target lesion revascularization (TLR), and coronary artery bypass grafting (CABG).

**Results:** After propensity score matching, baseline clinical and angiographic characteristics were similar in the achiever and non-achiever groups. Clinical outcomes of the propensity score matched patients showed no significant differences in cardiac death (4 (0.6%) vs. 2 (0.3%), P=NS), recurrent MI (4 (0.6%) vs. 9 (1.4%), P=NS), TLR (29 (4.6%) vs. 26 (4.1%), P=NS), MACEs (34 (5.3%) vs. 39 (6.1%), P=NS), or stent thrombosis (8 (1.3%) vs. 10 (1.6%), P=NS).

**Conclusions:** In this propensity-matched comparison, target non-HDL-C achievement in AMI patients undergoing PCI did not show the better clinical outcomes.