

Results The IgNT-ProBNP in patients with UA and NSTEMI have positive correlation with their GRACE risk score, correlation coefficients were 0.40 and 0.52, respectively ($p < 0.05$); the correlation coefficient of NT-proBNP level and GRACE risk score for all the patients ($n=126$) was 0.59 ($p < 0.05$). After GRACE risk stratification, IgNT-ProBNP of high-risk group was the highest among the three groups ($p < 0.05$), however, the difference of GRACE score between middle-risk group and low-risk group had no statistical significance ($p > 0.05$). The IgNT-ProBNP in high-risk group was higher than non- high-risk group.

Conclusion Increased NT-proBNP level was associated with increased GRACE score in NSTEMI patients; NT-proBNP level of high-risk group increased significantly and was higher than non-high-risk group. NT-proBNP level in patients with NSTEMI was related to clinic risk and valuable for risk stratification in patients with NSTEMI.

e0440 **PREGNANCY-ASSOCIATED PLASMA PROTEIN-A POLYMORPHISMS AND THE RISKS OF ACUTE CORONARY SYNDROME**

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Background Pregnancy-associated plasma protein-A (PAPP-A) is known to be abundantly expressed in vulnerable plaques in arteriosclerotic disease. Studies have shown PAPP-A to be a sensitive biomarker of plaque instability and cardiovascular events in patients with acute coronary syndrome. This paper tried to determine the association of PAPP-A polymorphisms with acute coronary syndrome (ACS).

Methods A case-control study of 210 patients with ACS and 204 unrelated age and sex matched controls was performed. four single nucleotide polymorphisms (SNPs) of PAPP-A gene variants were detected by PCR-restriction fragment length polymorphism (PCR-RFLP). The serum level of PAPP-A was measured using a newly developed sandwich ELISA technique based on 2 monoclonal antibodies.

Results Mean PAPP-A values were significantly higher in patients with acute coronary syndrome than in those with stable angina pectoris (29.7 vs 15.8 mIU/l, $p < 0.01$). In samples drawn < 2 h after admission, the sensitivity of PAPP-A was superior (93%) to that of CK-MB (60%) and troponin T (61%). In the patients with high-risk unstable angina pectoris, PAPP-A was related to the risk of nonfatal myocardial infarction ($p=0.02$) but not death ($p=0.08$). This result was consistent on multivariate analysis of the combination of mortality or nonfatal myocardial infarction (OR 2.65, 95% CI 1.40 to 5.03). In patients with non-ST-elevation acute coronary syndrome and ST elevation myocardial infarctions, PAPP-A was related to the risk of death ($p=0.01$). This was also true after adjustment for other univariate predictors of death (OR 2.19, 95% CI 1.16 to 4.16). Multiple logistic regression analysis with risk factors such as age, male sex, smoking, hypertension, diabetes mellitus, and dyslipidemia revealed the PAPP-A IVS6+95 C allele (dbSNP: rs13290387) to be associated with an increased risk of ACS (OR, 2.44; 95% CI 1.21 to 3.98; $p=0.018$). The IVS6+95 (G/C) polymorphism in the PAPP-A gene has been reported 102 cases (48.6%) were GG and 80 cases (38.1%) were GC and 28 cases (13.3%) were CC for the ACS group; the respective figures were 116 (56.9%) and 70 (34.3%) and 18 (8.8%) in the controls. Patients carrying the C allele had a tendency to increased risk of ACS.

Conclusions In the early stages of non-ST-elevation acute coronary syndrome and ST elevation myocardial infarctions, PAPP-A seems to be a more sensitive marker of myocardial infarction than CK-MB and troponin T. PAPP-A seems to be valuable in predicting the

outcomes of patients admitted with high-risk NSTEMI-ACS or STEMI. PAPP-A IVS6+95 C allele is an independent risk factor for ACS even after adjustment for traditional risk factors.

e0441 **SAFETY OF AGGRESSIVE ANTI-THROMBOTIC THERAPY IN ELDERLY PATIENTS WITH PERSISTENT ST ELEVATED MYOCARDIAL INFARCTION UNDERWENT PRIMARY PERCUTANEOUS CORONARY INTERVENTION – A SINGLE CENTER AND SINGLE OPERATOR EXPERIENCE**

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Objectives To evaluate the safety and efficacy of individualised anti-thrombotic therapy in elderly patients with ST-elevated myocardial infarction underwent primary PCI based on age groups.

Methods Study population Between Jan. 2007 and Dec. 2008, patients with ST-elevated myocardial infarction eligible for primary PCI was assigned into 3 groups based on their ages: non-elderly group (CON, ≤ 65), elderly 1 (ELD1, $65 < \text{age} \leq 75$), and elderly 2 (ELD2, > 75). These patients received individualised anti-thrombotic therapy based on their age group. Non-elderly patients received 300mg aspirin and 600mg clopidogrel loading dose at the emergency department and 10 $\mu\text{g}/\text{kg}$ tirofiban loading dose were given intravenous or intra-coronary prior to intervention and followed by 0.15 $\mu\text{g}/\text{kg}\cdot\text{min}$ infusion for 36 h. Elderly patients received 300 mg aspirin and 300 mg clopidogrel loading dose at the emergency department and tirofiban was given based on the thrombus burden in the culprit vessel. Clinical and angiographic parameters bleeding complications, syntax score, TIMI and CTFC coronary flow, TMP myocardial perfusion grade, in-hospital and long-term MACE, including cardiogenic death, non-fatal re-infarction, target vessel revascularization, re-hospitalisation.

Results Between Jan. 2007 and Dec. 2008, 124 patients with ST-elevated myocardial infarction eligible for primary PCI were enrolled. There were 48 patients in control group, 46 patients in ELD1 group, and 30 patients in ELD2 group. Patients in ELD1 group and ELD2 group had more co-morbidity factors. The complexity of coronary lesions was similar in three groups, the SYNTAX score in three groups were 17.7 ± 7.3 , 17.0 ± 7.7 and 16.8 ± 6.1 ($p=0.829$). The immediate angiographic outcome was also similar in three groups. The CTFC of infarction-related artery in three group were 31.4 ± 14.1 , 33.3 ± 16.9 and 32.5 ± 13.8 ($p=0.279$). TMP-3 perfusion were achieved in 79.2%, 71.2% and 80% patients in 3 groups. TIMI-3 flow were achieved in 87.5%, 86.9% and 86.6% patients in 3 groups. There were no fatal bleeding and TIMI major bleeding in both groups. There was a trend of increased TIMI minor bleeding risk in ELD2 group patients.

Conclusion Our single-center and single-operator experience indicate that individualised aggressive anti-thrombotic therapy for elderly patients with ST-elevated myocardial infarction underwent primary PCI could improve myocardial perfusion and coronary flow. Individualised aggressive anti-thrombotic therapy for elderly patients with ST-elevated myocardial infarction underwent primary PCI did not increase the bleeding risk.

e0442 **EFFECT OF ASPIRIN AND CLOSTAZOL ON INFLAMMATORY CYTOKINES IN PATIENTS WITH ACUTE CORONARY SYNDROME**

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