were 22 cases in Group non-aspiration, 4 cases received direct stenting, 18 cases received balloon predilatation and stenting. 5 cases showed slow flow, 3 cases recovered normal flow after intra-coronary infusion of nitroglycerin, verapamil and Ximweinin, but 2 cases also showed TIMI 1, and accompanied heart failure.

**Conclusions** The applying of aspiration catheter in patients with STEMI prior to primary PCI could increase the opportunities of direct stenting, improve myocardial reperfusion, immediate and recent clinical outcomes as compared with PCI in the absence of thrombus aspiration, and also show ease and safe procedure.

**e0420 C-REACTIVE PROTEIN FOR PREDICTING CLINICAL OUTCOMES AFTER DRUG-ELUTING STENT IMPLANTATION**

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**Background** Although C-reactive protein (CRP) has been proposed as a useful biomarker for predicting atherothrombosis, the association of CRP levels and clinical outcomes after drug-eluting stent (DES) implantation has not been defined.

**Objectives** To assess the predictive value of CRP after drug-eluting stent (DES) implantation, especially the association of CRP levels with adverse clinical events, such as stent thrombosis, death, myocardial infarction (MI) and so on.

**Methods** We evaluated 2048 consecutive patients who underwent successful DES implantation. The primary outcomes were stent thrombosis, death, myocardial infarction (MI), and target vessel revascularisation.

**Results** After 2 years of follow-up, there were 11 stent thrombosis, 72 deaths, 113 MI, 135TVR. In multivariable Cox proportional-hazards models, the high CRP remained predictive of adverse cardiac events, elevated levels of CRP were significantly associated with increased risks of stent thrombosis (HR 4.08; 95% CI 1.91 to 11.44; p<0.001), death (HR 2.01; 95% CI 1.18 to 4.628; p=0.004), MI (HR 1.78; 95% CI 1.25 to 9.12; p=0.001), but not target vessel revascularisation (HR 1.20, 95% CI 0.59 to 1.16; p=0.62).

**Conclusions** Elevated CRP levels were significantly associated with major coronary events after DES implantation, such as stent thrombosis, death, and MI, demonstrating the additive impacts of active inflammation and myocardial injury on prognosis after DES implantation.

**e0421 DIAGNOSTIC VALUE OF PLASMA SRAGE IN CORONARY ARTERY DISEASE AND CORONARY ARTERY DISEASE WITH ACUTE MYOCARDIAL INFARCTION (AMI)**

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**Objective** To elucidate whether plasma soluble receptor for advanced glycation end products (sRAGE) is the biochemical markers indicating coronary artery disease and coronary artery disease with acute myocardial infarction (AMI).

**Method** Plasma levels of sRAGE was determined by enzyme linked immunosorbent assay in patients who came from Cardiology Department of Tiantan Hospital from March to May 2009 categorised as group I (non-AMI subjects), group II (CAD without myocardial infarction subjects), and group III (CAD with AMI subjects).

**Results** Plasma levels of sRAGE was higher in group III than in group II (p<0.01) and in group I (p<0.01). The levels of sRAGE between group II and group I were of no statistical difference (p>0.05). Further more, to evaluate whether sRAGE is the biochemical markers indicating the AMI in CAD patients, ROC curve was used, and area under the curve was 0.855(p=0.000).

**Conclusion** sRAGE may be new biochemical markers indicating AMI in the patients with coronary artery disease. The diagnostic sensitivity of sRAGE is 75% and specificity is 86.4%.

**e0422 DIAGNOSTIC VALUE OF ADENOSINE STRESS 99mTc-MIBI GATED MYOCARDIAL PERFUSION IMAGING FOR CORONARY ARTERY DISEASE**

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**Objective** Stress 99mTc-MIBI myocardial perfusion imaging (MPI) be useful in evaluating myocardial ischaemia and judging coronary artery stenosis. The purpose of this study was to evaluate the sensitivity, specificity and accuracy of adenosine stress 99mTc-MIBI gated myocardial perfusion SPECT (G-MPI) for the diagnosis of coronary artery disease (CAD).

**Materials and methods** The subjects were forty-six patients diagnosed or suspected CAD, including forty with angina, six with old myocardial infarction. Adenosine stress G-MPI were performed 90 min after injection of adenosine, and resting G-MPI performed in same day. All patients underwent coronary artery angiography within two weeks. Significant stenosis was defined when the coronary artery intraluminal stenosis ≥50%. Analyse the imaging and calculate the sensitivity, specificity and accuracy of adenosine stress G-MPI in diagnosing CAD and judging coronary artery stenosis. Do correlation analysis of left ventricular systolic function (left ventricular ejection fraction) between adenosine stress 99mTc-MIBI G-MPI and echocardiography.

**Results** The sensitivity, specificity, accuracy, positive predictive value and negative predictive value of adenosine stress 99mTc-MIBI G-MPI for the diagnosis of CAD were 87.0%, 85.7%, 86.6%, 93.8%, and 72.7% respectively. The sensitivity, specificity and accuracy for the diagnosis of LAD, LCX and RCA stenosis were 88.2%, 90.9%, 88.9%, 78.6%, 83.3%, 80.0%, 90.5%, 81.8%, 87.5% respectively. LVEF-G-MPI correlated with LVEF-UCG significantly, with a correlation coefficient of 0.885 (R=0.0001).

**Conclusions** In Conclusion, stress adenosine 99mTc-MIBI G-MPI have provided better sensitivity, specificity and accuracy in the diagnosis of CAD, and is probably an accurate method for detecting coronary artery branch stenosis. It can be used in evaluating left ventricular function, especially for patients unsuited in the exercise MPI.

**e0423 THE RESEARCH ABOUT THE SHORT-TIME EFFECTS OF PREINFRACTION ANGINA IN PATIENTS COMPLICATED WITH ACUTE MYOCARDIAL INFARCTION AND TREATED BY PRIMARY PERCUTANEOUS CORONARY INTERVENTION**

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**Objective** To evaluate the short-time effects, angiographic characteristics, and the clinical outcome of preinfarction angina in patients with first acute myocardial infarction (AMI) after emergency primary percutaneous coronary intervention (PCI) and evaluate the influence of diabetes mellitus to preinfarction angina.

**Methods** The clinical data of 130 patients with AMI hospitalised from January 2006 to December 2008, who underwent emergency
PCI within 12 h after the onset of AMI, including 54 cases complicated with diabetes mellitus (Group DM) and 76 cases without diabetes (non-diabetes mellitus group, Group ND). 76 Patients in group ND (without diabetes) were divided into group A (with preinfarction angina, n=40) and group B (without preinfarction angina, n=36). Another 54 patients in group DM (with diabetes) were divided into group C (with preinfarction angina, n=28) and group D (without preinfarction angina, n=26). The basic clinical characteristics, baseline demographic, angiographic and procedural details in these four groups were similar. Myocardial enzyme was continuously measured. Clinical and angiographic features, the extent of coronary artery lesions were analysed. The incidence of malignant arrhythmia, heart failure, cardiogenic shock, and the rate of MACE (major adverse cardiac event, including cardiac death, reinfarction, reconstruction of ischaemic target vessel) in hospitalisation were observed. The coronary collateral circulation and spontaneous coronary recanalisation (SR) of infant related artery (IRA) in coronary artery disease were also analysed.

**Results**

1. There were no significantly different between baseline clinical document and the time of revascularisation of IRA in each group (p>0.05). 2. The peak value of creatine kinase MB (CK-MB) was significantly lower in group A than that in group B (p<0.05). And there was no significantly different between each group (p>0.05). 3. The character being analysed during CAG 3.1. The characteristic of coronary artery disease 3.1.1 The incidence of multi-branch lesions were significantly lower in group A than that in group D (p<0.05), while, there was no significant difference in other groups (p>0.05). 3.1.2. The score of Gensini to evaluate coronary artery angustity in group A was significantly lower than that in group B (p<0.05), C (p<0.05) and D (p<0.01), but there weren't significant differences among group B, C and D (p>0.05). 3.1.3. There were no significantly different of spontaneous coronary recanalisation (SR) of infant related artery (IRA), coronary collateral circulation (CCC) in coronary artery disease, diffuse affection and the number of occlusion vascular among four groups (p>0.05 for these comparisons). 3.2. The evaluation during PCI 3.2.1. There was no significant differences in PCI immediate success rate during hospitalisation, the number of stents implented into IRA, the blood flow after the plenting of stents and the phenomenon of no-reflow among four groups (p>0.05). 3.2.2. The blood flow of the IRA before the plenting of stents was significantly higher in group A than that in group B (p<0.05). 4. The clinical outcomes of patients in the near future after PCI during hospitalisation. 4.1. There were no significantly difference of malignant arrhythmia, total cardiac mortality rates, acute heart failure and cardiogenic shock (KillipII III IV), reconstruction of ischaemic target vessel among four groups (p>0.05 for these comparisons). 4.2. The occurrence of reinfarction and stent thrombosis was significantly lower in group A than those in group B (p<0.05).

**Conclusion**

Preinfarction angina can reduce myocardial infarct size and the extension of AMI, and have beneficial effects on blood flow of IRA before PCI. It can reduce not only the happening frequency of reinfarction but also the stent thrombosis. So preinfarction angina can improve short-time prognosis in AMI. But such beneficial effects of preinfarction angina were not observed in diabetic patients, suggesting that diabetes might prevent the protection effects of ischaemic preconditioning.

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**e0425 CLINICAL AND CORONARY ANGIOGRAPHY CHARACTERISTICS BETWEEN YOUNG (≤45) AND OLD (>60) PATIENTS WITH CORONARY ARTERY DISEASE**

**Objective**

To study the clinical and coronary angiography characteristics between young (≤45) and old (>60) patients with coronary artery disease.

**Methods**

Angiographic and clinical data from A: 176 patients (≤45) selected from 1795 patients with coronary artery disease from April 2006 to May 2010 were compared to B: 464 patients (>60) with coronary artery disease from April 2007 to May 2009 in our department.

**Results**

1. The male in A much more than B (93.1% vs 61.4%, p<0.01). (2) The patients with hypertension or type 2 diabetes mellitus in A were less than B (all p<0.01). (3) The patients with smoking, taking drug named Anajia or a positive family history in coronary artery disease in A were much more than B (all p<0.01). The incidences of dyslipidemia in A were more than B (28.2% vs 19.0%, p<0.05). (4) The patients because of acute myocardial infarction come to hospital were more than B (72.0% vs 62.5%, p<0.01). (5) Auto driver, the self-employed and government functionary were the top three categories of the coronary heart disease, but farmer, worker and retired military cadre in B. (6) Morbidity: the patients (≤45) with coronary artery disease accounted for 9.7% in all patients with coronary artery disease in the same time (the cases 32 /≤40 accounted for 4.6%). (7) The patients done coronary angiography in A were more than B (64.0% vs 38.1%, p<0.01). Singer vessel coronary artery diseases were seen more frequently in A than B (50.9% vs 21.5%, p<0.01), and especially left anterior descending branch diseases occupied 87.7%; two-vessel diseases and collateral circulation were less in A than B (all p<0.05); three-vessel diseases, right coronary artery and circumflex diseases were less in A than B (all p<0.01); however lesions and left main artery, left anterior descending branch diseases have no statistics meaning in A and B. The meaningless lesion coronary arteries diseases were much more in A than B (59.0% vs 0.6%, p<0.01), The myocardial infarction patients' account for 90% in the groups who had meaningless coronary arteries change showed by coronary angiography in A.

**Conclusion**

The feature of coronary heart disease (≤45): (1) Most because of acute myocardial infarction come to hospital; (2) The male, short of labour, more tension, heavy work pressure, the