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 infarct related artery (IRA) in coronary artery disease were also analysed.

Results 1. There were no significantly difference 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 difference 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 angusty 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 difference of spontaneous coronary recanalisation (SR) of infarct 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 implanted into IRA, the blood flow after the planting 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 planting 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~IV), reconstruction of ischaemic target vessel among four groups ($p>0.05$). 4.2. The incidence 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.

e0424 PROTECTIVE EFFECT OF TRIMETASIDINE ON RECURRENT ANGINA AND MACE AFTER PERCUTANEOUS CORONARY INTERVENTION

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Objective To evaluate the effect of pre-procedural acute oral administration of trimetazidine (TMZ) on percutaneous coronary

intervention (PCI)-induced myocardial injury, and the effect of TMZ on prevention of recurrent angina and major adverse cardiac events (MACE) after PCI.

Design 200 patients with unstable angina pectoris undergoing PCI were prospectively randomised and randomly assigned to 2 groups. INTERVENTIONS: Patients were randomly assigned to receive or not an acute loading dose of 60 mg of TMZ prior to intervention and an ordinary dose of 20 mg Tid of TMZ after PCI. Cardiac troponin Ic (cTnI) levels were measured before and after PCI. Patients were followed up for 1 year.

Main outcome The total amount of cTnI released after PCI was significantly reduced in the TMZ group. Recurrent angina and MACE after PCI were significantly reduced in the TMZ group.

Conclusion Pre-procedural acute oral TMZ administration significantly reduces PCI-induced myocardial injury. Constituent use of TMZ could prevent recurrent angina and MACE after PCI.

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

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Objective To study the clinical 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 functional 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 82 (≤ 40) accounted for 4.6%). (7) The patients done coronary angiography in A were more than B (64.0% vs 38.1%, $p<0.01$). Single 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 (89.0% 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

incidences of dyslipidemia, smoking and the early onset group had stronger family history of coronary arteries diseases were high risk groups, The patients taking Anajia may also the high risk groups in our area. (3) Morbidity: accounted for 9.7% in all patients with coronary artery disease in the same time (the cases (≤ 40) accounted for 4.6%). (4) (4) The coronary angiography characteristics about half is the single vessel diseases, especially left anterior descending branch diseases; coronary angiography in some patients has no significant lesions, and mainly to myocardial infarction; there were differences about two and three-vessel diseases, right coronary artery and circumflex diseases, collateral circulation between young (≤ 45) and old (> 60); there were not differences about the left main coronary arteries diseases, left anterior descending branch diseases and the degree of narrowed coronary arteries between young (≤ 45) and old (> 60).

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e0426 PROTEOMIC ANALYSIS OF PLASMA FROM PATIENTS WITH ACUTE CORONARY SYNDROME

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Background Proteomics is the new system biological approach to the study of proteins and protein variation on a large scale as a result of biological processes which can identify several proteins at a given time in a sample. Proteomic analysis has provided important insights into ischaemic heart disease, heart failure, and cardiovascular pathophysiology. Blood represents one of the most accessible sources for biomarkers and has broad clinical significance. Serum or plasma samples provide an excellent source of materials for proteomic analysis.

Objectives The aim of this study was to seek the special plasma molecule in the plasma protein map from the patient with acute coronary syndrome (ACS) using proteomics.

Methods Plasma from 60 patients, 20 with acute myocardial infarction (AMI) and 20 with unstable angina (UA), was investigated. The control group included 20 age-matched volunteers. 2-DE-DIGE/MALDI-TOF-MS analysis was performed during the procedure. The optimal abundant proteins in plasma were removed with the polyclonal antibody affinity column.

Results With 2-DE-DIGE/MALDI-TOF-MS analysis, 14 different expression proteins were found in plasma of patients with ACS. (1) As compared with the control, serum amyloid A2, CP20 kDa protein, alpha-1 antitrypsin, haptoglobin beta and alpha-2 chain, C6 precursor and C4, fibrinogen gamma chain and fibrin beta were up-regulated in plasma from UA and AMI patients. (2) Meanwhile, apolipoprotein A-I, A-IV and A-IV precursor, TF 11 and 7 kDa protein, transthyretin, gelsolin and gelsolin precursor isoform 1, myosin-11, HBB Truncated beta-globin were down-regulated in plasma from ACS patients. (3) Moreover, ELISA analysis showed that SAA was up-regulated and gelsolin was down-regulated in the plasma of UAP and AMI.

Conclusions Various proteins involving in acute phase protein, complement system, and cytoskeleton, apolipoprotein, energy metabolism were participated in the procession of ACS. The newly discovered different proteins, serum amyloid A2 and gelsolin might be the special molecules for ACS. But further investigation should be carrying out in the future.

e0427 NO ASSOCIATION OF MCP-1 GENE POLYMORPHISMS WITH MYOCARDIAL INFARCTION IN A HAN CHINESE COHORT

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Objective To explore the association of MCP-1 gene polymorphisms with myocardial infarction in a Han Chinese cohort.

Methods The study comprised 330 patients with MI (MI group) and 156 healthy controls (control group). This polymorphism was determined by using the PCR-restriction fragment length polymorphism method.

Results Our data showed that frequencies distribution of the genotypes (AA: 17.27%, AG: 48.48% and GG: 32.24% in MI group; AA: 12.82%, AG: 56.41% and GG: 30.77% in control group; p was 0.237, 0.126, and 0.472, respectively;) and the G allele genotype (58.48% in MI group; 58.97% in control group; p was 0.871) were not significantly different between the cases and the controls. Multivariate logistic regression analysis confirmed the lack of association of MCP-1 gene A-2518 G single nucleotide polymorphism with MI ($p > 0.05$).

Conclusion No significant association of A-2518G polymorphism of MCP-1 gene with MI is found in the Han Chinese population.

e0428 NO ASSOCIATION OF THE THROMBOSPONDIN-4 A387P POLYMORPHISM WITH ACUTE CORONARY SYNDROME IN THE CHINESE HAN POPULATION

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Objective The aim of this study was to explore the possible association of the thrombospondin-4 (TSP-4) gene G29926C (A387P) polymorphism with acute coronary syndrome (ACS) in a Chinese Han population.

Methods The TSP-4 A387P polymorphism was determined by PCR and restriction fragment length polymorphism (RFLP) analysis. A total of 749 unrelated subjects were included in the study, consisted of two groups: the ACS group and control group. The ACS group was composed of 412 patients with ACS (298 men and 114 women) recruited from hospitalised patients at four participating hospitals between November 2003 and May 2006. The diagnosis of ACS was based on the diagnostic criteria of 2002. AHA/ACC guideline. The control group consisted of 337 age- and sex- match subjects (232 men and 105 women) who were judged to be free of CAD by history, clinical examination, electrocardiography, exercise test and angiography, which were selected from inpatients at the same hospitals. Subjects with cardiomyopathy, tumour, and renal or hepatic disease were excluded from the study.

Results Slightly decreased frequency of GC genotype was observed in patients with ACS, compared with controls (5.3% vs 7.1%), but the difference did not reach statistical significance ($p = 0.31$). Similarly, the prevalences of the C allele were 2.7% and 3.6% for ACS and control groups, respectively ($p = 0.32$). None of the homozygote was detected for the C allele. Further analyses in subjects subgrouped according to sex and age also showed no association of TSP-4 A387P polymorphism with ACS. Furthermore, after adjustment for conventional risk factors by multiple logistic regression analysis, the carrier prevalence of the C allele did not differ significantly between the ACS and control groups (OR=0.85; 95% CI 0.45 to 1.59; $p = 0.60$).

Conclusion The present study suggested that the TSP-4 A387P variant showed a low prevalence compared with western populations and failed to associate with an altered risk of ACS in the Chinese Han population. The findings further supplement experimental data for TSP-4 gene study of the coronary disease.