

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 ( $\leq 45$ ) AND OLD ( $> 60$ ) PATIENTS WITH CORONARY ARTERY DISEASE

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**Objective** To study the clinical Clinical and coronary angiography characteristics between young ( $\leq 45$ ) and old ( $> 60$ ) patients with coronary artery disease.

**Methods** Angiographic and clinical data from A: 176 patients ( $\leq 45$ ) 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 ( $\leq 45$ ) with coronary artery disease accounted for 9.7% in all patients with coronary artery disease in the same time (the cases 82 ( $\leq 40$ ) 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 ( $\leq 45$ ): (1) Most because of acute myocardial infarction come to hospital; (2) The male, short of labour, more tension, heavy work pressure, the