Objective To explore the effects of irbesartan on activities of Na+-K+-ATPase and Ca2+-ATPase in blood vessels from renal hypertensive rats (RHRs).

Methods Renovascular hypertension was induced by two kidney-one clip method. Eighteen RHRs were randomly divided into 3 groups: RHR model group (n=6), irbesartan treated group [50 mg/(kg · d), n=6], withdrawal group (n=6). Six rats were included in sham operation group. Blood pressure was measured before and after using irbesartan. Thickness of vascular wall (TVW) of thoracic aorta and mesenteric artery were also found [thoracic aorta: (11.9±1.9) μm vs (7.5±1.6) μm (P<0.01) vs (8.2±0.8) μm (P<0.01)], mesenteric artery: (11.6±1.9) μm vs (8.1±0.8) μm (P<0.01)]. No change of Na+-K+-ATPase activity was found after irbesartan treatment. After one-week discontinuation of treatment, blood pressure was significantly elevated, the activity of Ca2+-ATPase of thoracic aorta [(7.6±1.4) μmol Pi/(h·mg prog)] and mesenteric artery [(6.9±1.3) μmol Pi/(h·mg prog)] was decreased (both P<0.01). There was a significant negative correlation between AngII and the activity of Ca2+-ATPase in RHR.

Conclusions The vascular remodelling of RHR may be associated with decreased vascular ATPases activities. Irbesartan can reverse vascular remodelling partially by increasing Ca2+-ATPase activity.
and investigate variations of lipid, glucose, and vascular endothelial growth factor (VEGF) levels myocardial perfusion images and cardiac function, as well as the possible mechanisms to improve myocardial perfusion.

Methods Total 102 cases were selected, 5 patients were lost. Finally 97 patients included, 77 males and 20 females, aged 56±13. Of whom, 30 cases suffered from acute myocardial infarction (AMI), 48 from acute coronary syndromes (ACS), and 19 from chronic stable angina pectoris. They were randomised into three groups, A (n=35), B (n=31), and C (n=35) without differences in the baseline level. Normal adults were control group D (n=50). Groups A and B were given by Acarbose 50 mg tid and 100 mg tid, respectively; Groups C and D were given by placebo, the treatment course lasted three months, and CHD patients of each group underwent the same basic treatments after PCI. Myocardial perfusion imaging and variations of blood lipid, IGT, VEGF levels, myocardial perfusion images and cardiac function were observed.

Results 1. The IGT had no statistically differences before treatments in A, B and C groups (p>0.05). The changes of FPG and OGTT 2 h PG levels had statistically differences after treatments in A and B groups (p<0.05), especially B group (p<0.01); The changes of FBGL had no statistically significant differences after treatments in the four groups (p>0.05). The changes of lipid levels had no statistically differences (p>0.05) before and after treatments in A, B, C and D groups, respectively. 2. A, B, C groups had the significantly higher plasma VEGF levels (203±89 ng/l vs 77±52 ng/l, p<0.01) than D group before treatments. The changes of VEGF levels had statistically differences after treatments in A and B groups (p<0.05), especially B group (p<0.01). The changes of VEGF levels had no statistically differences before and after treatments in C and D groups (p>0.05). 3. The myocardial perfusion images and cardiac function had no statistically differences before treatments in A, B and C groups (p>0.05). The changes of myocardial perfusion images had statistically differences after treatments in A and B groups (p<0.05), especially B group (p<0.01); The changes of cardiac function had statistically differences after treatments in A and B groups (p<0.05), there is no statistically differences after treatments between A and B (p>0.05); The changes of myocardial perfusion images and cardiac function had no statistically differences in C group (p>0.05).

Conclusions Acarbose can regulates IGT, improve myocardial perfusion images and cardiac function. The mechanisms may include reducing VEGF levels, suppressing endothelial hyperplasia, and improving the microcirculation.

**TRIPLE VERSUS DUAL ANTIPLATELET THERAPY IN PATIENTS WITH ACUTE CORONARY SYNDROME UNDERGOING PERCUETANEOUS CORONARY INTERVENTION**

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Background Following percutaneous coronary intervention (PCI), clopidogrel in addition to aspirin therapy leads to greater protection from thrombotic complications than aspirin alone. Whether triple antiplatelet therapy is superior or similar to dual antiplatelet therapy in patients with acute coronary syndrome undergoing PCI in the era of drug-eluting stents remains unclear.

Objectives To evaluate the effect of triple antiplatelet vs dual antiplatelet therapy in patients with acute coronary syndrome after PCI.

Methods and Results We collected consecutive 1203 acute coronary syndrome patients undergoing drug-eluting stents implantation. They received either dual (aspirin plus clopidogrel; dual group; n=682) or triple (aspirin plus clopidogrel plus cilostazol; triple group; n=521) antiplatelet therapy. The triple group received additional cilostazol at least for 1 month. Various major adverse cardiac events at 1 year were compared between these 2 groups. Compared with the dual group, the triple group had a similar incidence of major bleeding events but a significantly lower incidence of in-hospital mortality. Clinical outcomes at 1 year showed that the triple group had significantly lower incidences of cardiac death and total major adverse cardiac events than the dual group.

Conclusions Triple antiplatelet therapy seems to be superior to dual antiplatelet therapy in patients ACS undergoing PCI with drug-eluting stents.

**SERUM LIPOPROTEIN (A) IS POSITIVELY CORRELATED WITH CORONARY ARTERY CALCIFICATION IN LOW RISK CHINESE PATIENTS**

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Background Prior studies indicated that lipoprotein (a) is an independent risk factor for coronary atherosclerosis, but the relationship of serum lipoprotein (a) and coronary artery calcification is still poorly understood in Chinese population.

Objective The present study is to investigate the human lipid profile of a single center (lipoprotein (a), other blood lipid levels) with the relationship of coronary artery calcification.

Method 888 patients suspected with coronary artery disease under coronary CT examinations from March 2007 to June 2009 in our hospital were enrolled, using the Agatston score to estimate coronary artery calcification.

Results Logarithmic transformed lipoprotein (a) levels were positively correlated with logarithmic transformed Agatston score (r=0.19, p<0.01). In our study, lipoprotein (a) was a significant independent risk factor of coronary artery calcification (p<0.01, 95% CI 1.10-1.32). Additionally, lipoprotein (a) was positively correlated with age and body mass index (BMI), and negatively correlated with lipid levels (e.g., total cholesterol, low-density lipoprotein cholesterol). Conclusion Lipoprotein (a) may be a novel biomarker for coronary artery calcification.