RESULTS The 35 trials allocated 1156 patients to perform loco-rectal postconditioning cycles at onset of reperfusion and 1153 patients to usual percutaneous coronary intervention (PCI). Statistical analysis indicated that the peak of creatine kinase (CK) and creatine kinase isoenzyme (CKMB) in postconditioning (PoC) groups decrease significantly during the first 72 hours after PCI compared with controls (Con) (P<0.001 & P<0.05). The data showed smaller infarct size (IS) in PoC+ PCI than in PCI patients during 7 days after myocardial infarction (P=0.01). However, IS was not significantly different between study groups after6- months (P=0.08). While there was a trend toward reduction of IS. LVEF is also improved during 7 days after myocardial infarction (P<0.001). LVEF was also improved 4-12 months after myocardial infarction (P=0.02).

CONCLUSIONS Ischemic postconditioning by brief interruptions of coronary blood flow at the onset of reperfusion after PCI appears to be superior to PCI alone in reduction of both myocardial injury and left ventricular dysfunction. Ischemic postconditioning attenuated CK release and reduced infarct size for up to 7 days after reperfusion in patients with STEMI, but seems failing to limit IS for long time. However, long-term LVEF may be improved by the additional protocol.

GW26-e4027
Effect of candesartan on proliferation of vascular smooth muscle cell induced by high glucose
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OBJECTIVES To observe the rat vascular smooth muscle cell A775 proliferation at high concentrations of glucose, as well as changes in the secretion of candesartan (Cand) the effect of different concentrations.

METHODS A775 cell culture 48h after randomization, normal glucose group (NG, 5 mM D-glucose), high glucose (HG, 15, 25, 35, 45 mM D-glucose), high glucose (25mM) + Cand10⁻⁷mol / L group, high glucose (25mM) + Cand10⁻⁶mol / L group, high glucose (25mM) + Cand10⁻⁵mol / L group, cell proliferation assay by MTT; ELISA detect AngII levels; using immunofluorescence staining to detect AT1 receptor expression.

RESULTS (1) after culture 24, 48, 72h, compared with NG group, HG group absorbance values were significantly higher (P<0.05) and the highest one is 25mM group(P<0.01); (2) after culture 48h, compared with the NG group, HG group AngII secretion was significantly increased (P<0.05) and the highest one is 25mM group (P<0.01); (3) immunofluorescence staining observed A775 AT1 receptor on cell membrane, and the HG group is significantly increased the amount of the distribution compared NG group; (4) compared to the 25mM group, in high concentrations Cand group inhibit A775 cell proliferation and the differences were statistically significant (P<0.05); (5) compared with high glucose 25mM group, Cand group do not affect the secretion of AngII, the difference was not statistically significant (P>0.05); (6) compared with high glucose 25mM group, Cand group AT1 receptor on the cell membrane significantly reduced the amount of distribution.

CONCLUSIONS High glucose can induce abnormal cell proliferation, prompting cells to secrete AngII, prompting an increase in AT1 receptor expression.

GW26-e4530
Correlation between LDL-C, BMI and Coronary Slow Flow
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OBJECTIVES The aim of this research is to study correlation between LDL-C, BMI and coronary slow flow phenomenon (CSFP).

METHODS The 150 patients with chest pain, who underwent coronary angiography were divided by corrected TIMI frame count (CSFP was defined as frame count >27) into CSFP group (79) and control group (71). Body mass index (BMI), gender, history of smoking, hypertension, diabetes and hyperlipidemia were recorded and the total cholesterol (TC), triglyceride (TG), Low-density lipoprotein (LDL-C), hight-density lipoprotein (HDL-C), uric acid (UA), creatinine (C), left ventricular ejection fraction (EF), systolic blood pressure (SBP) and diastolic blood pressure (DBP) were measured on admission.

RESULTS The smoking rate, BMI, TG, LDL-C, UA were significantly higher in the patients with the CSFP group than the subjects in control group. BMI, LDL-C in the CSFP group increased significantly with increasing vessel involvement. The logistic regression analysis showed that BMI and LDL-C were the influence factor for coronary slow flow, and were positively correlated with CSFP.

CONCLUSIONS CSFP with coronary slow flow phenomenon is associated with BMI and LDL-C.

GW26-e5434
The study of relationships between intra-abdominal obesity and high sensitive C-reactive protein, tissue inhibitor of metalloproteinase-1 in patients with coronary heart disease
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OBJECTIVES The aim of this study is to investigate the relationship between intra-abdominal obesity and the serum levels of inflammatory factors - high sensitive C-reactive protein (hs-CRP) and tissue inhibitor of metalloproteinase-1 (TIMP-1) in patients with coronary heart disease (CHD).

METHODS A total of 85 persons were divided into two groups of disease group and control group. All subjects were observed to survey the height, body weight, waist circumference (WC), then calculated the body mass index (BMI) and the waist-to-hip ratio (WhR). All subjects were evaluated with a DEXA total body scan performed using a Lunar Prodigy system(GE Healthcare). All subjects were collected venous blood to assay fasting total cholesterol (TC), triglyceride(TG),
high density lipoprotein cholesterol (HDL-C), low density lipoprotein cholesterol (LDL-C), hyper sensitive-C reactive protein (hs-CRP) and tissue inhibitor of metalloproteinase-1 (TIMP-1). The body fat composition and distribution, serum levels of inflammatory factors were also analyzed.

RESULTS Both the control group and disease group, the level of hs-CRP was significantly correlated positively with WC, BMI, WHR, A/G. The level of hs-CRP (3.11±3.71) μg/L in the CHD group was significantly higher than the control group (1.48±1.28) mg/L (P < 0.05). The levels of TIMP-1 have no significant deviation between the CHD group and the control group [(46.3±2.17, 86) ng/ml vs. (51.39±16.50 ng/ml) (P > 0.2)]. In both groups, hs-CRP was significantly correlated negatively with WC, BMI, WHR, A/G (P < 0.05), the levels of TIMP-1 were not significantly correlated with BMI, WC, WHR, TF%, A/G, LDL-C, hs-CRP (all P > 0.05).

CONCLUSIONS The accumulation of abdominal adipose tissue is closely correlated to higher hs-CRP. An extent of chronic inflammatory stress might exist in obese person. The level of hs-CRP is significantly increased in the CHD group. However, there is no significantly correlation between serum TIMP-1 and the accumulation of abdominal adipose tissue.

GW26-e0235
Lipid among Patients Presented with Acute Myocardial Infarction Unstable Angina and Stable Angina Pectoris
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OBJECTIVES The objective of this study is to understand the adequacy of lipid-lowering therapy in treating acute myocardial infarction (AMI) patients. Despite the ample evidence and guidelines to treat coronary artery disease (CAD) with lipid-lowering therapy, there have been concerns among physicians in treating patients of AMI who has the lower level of serum lipid.

METHODS We analyzed 3245 CAD lipid profile dates collected from cardiology department in Tianjin Chest Hospital, China, retrospectively. Patient data were divided into three groups based the clinical characteristics. Statistical analyses were performed to provide the baseline lipid levels and clinical feature of AMI.

RESULTS The concentrates of total cholesterol (TC) are (183.1±37.9) mg/dl, (192.1±44.4) mg/dl and (213.8±46.8) mg/dl for groups AMI, unstable angina pectoris (UAP) and stable angina pectoris (SAP) respectively. The concentrates of low-density lipoprotein cholesterol (LDL-C) are (116.6±32.6) mg/dl, (118.8±39.4) mg/dl and (139.1±41.9) mg/dl for groups AMI, UAP and SAP respectively. The concentrates of high-density lipoprotein cholesterol (HDL-C) are (40.7±10.8) mg/dl, (45.4±11.9) mg/dl and (45.8±13.2) mg/dl for groups AMI, UAP and SAP respectively. The concentrates of total cholesterol (TC) are (183.1±37.9) mg/dl, (192.1±44.4) mg/dl and (213.8±46.8) mg/dl for groups AMI, UAP and SAP respectively. The concentrates of ejection fraction (EF) are (56.2±9.2)%, (62.0±7.6)% and (62.8±8.0)% for groups AMI, UAP and SAP respectively. The above data suggests that TC, LDL-C and HDL-C serum level in AMI patients were the lowest among three groups, followed by UAP patient group and SAP patient group. There were significant differences in BWC and EF between three groups of patients. A good correlation was confirmed between EF% and the lipid. WBC did not correlate with the lipid except HDL-C. AMI is an acute inflammatory reaction that is accompanied by the change of lipid level.

CONCLUSIONS Although the level of TC, LDL-C and HDL-C are lower in AMI, and higher with WBC, it is maybe related to acute inflammatory reaction during the rupture of atherosclerotic plaques.

GW26-e2193
Renal insufficiency and mortality in coronary artery disease with reduced ejection fraction
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OBJECTIVES Despite the correlation between chronic renal insufficiency and cardiovascular disease has received longstanding attention, the impact of renal insufficiency on the risk of death in coronary artery disease (CAD) patients with reduced ejection fraction (EF) has not been well evaluated.

METHODS 2161 patients with CAD were enrolled and were grouped into 3 eGFR categories: ≥90 (n = 638), 60-90 (n = 1142), and <60 (n = 381) mL/min/1.73 m². Patients with EF > 50% or ≤ 50% were defined preserved EF (n = 1749) or reduced EF (n = 412), respectively. The end points were all-cause mortality and cardiac mortality.

RESULTS The average age was 64.59 ± 10.23 years and males accounted for 79.5% of patients. A total of 159 deaths (mortality rate: 7.4%) occurred during the follow-up period (an average of 30.97±11.70 months), including 81 cases (cardiac mortality rate: 3.7%) of cardiac death. Cumulative survival curves showed that in patients with reduced EF, renal insufficiency significantly increases all-cause mortality and cardiovascular mortality in a graded fashion (mortality rate, moderate or severe vs. normal: 29.3% vs. 5.4%, P < 0.001; cardiac mortality rate, moderate or severe vs. normal: 18.2% vs. 4.5%, P = 0.001, respectively). COX regression analysis showed that in CAD patients with reduced EF, moderate to severe renal insufficiency increased all-cause mortality by 6.10-fold (HR 6.10, 95% CI 2.50 to 14.87) and cardiac mortality by 4.10-fold (HR 4.10, 95% CI 1.51 to 11.33). Moreover, even mild renal insufficiency increased all-cause mortality by 2.59-fold (HR 2.59, 95% CI 1.07 to 6.28) and cardiac mortality by 2.22-fold (HR 2.22, 95% CI 0.83 to 5.95).

CONCLUSIONS This study has found that the damage caused by renal insufficiency in patients with CAD is closely related to cardiac function. In patients with reduced EF, renal insufficiency, even mild, would further increase the risks of all-cause mortality and cardiovascular mortality.

GW26-e2247
Analysis of the clinical characteristics and the characteristics of coronary artery diameter of patients with slow coronary flow
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OBJECTIVES This study analyzes slow coronary flow (SCF) by clinical features and characteristics of coronary artery diameter to explore SCF patient’s risk factors and possible pathogenesis.

METHODS The study analyzes 2171 patients retrospectively which underwent coronary artery angiography in Weifang People’s Hospital during August 2012 to April 2014. We read their angiographic results, and selected 110 cases (5.20%) as the experimental group (SCF Group) who have a slow flow phenomenon with normal coronary arteries. Three-vessel coronary (LAD, LCX and RCA) TIMI flow frame count in SCF Group is greater than the number of frames in published coronary TIMI flow frames count of two standard deviation. Then we selected 49 cases randomly as the control group (NCF Group) which have normal coronary arteries and coronary artery flow. Recording all subjects clinical data (including relevant medical history and laboratory parameters) and coronary artery lumen diameter data by read the angiographic results. Continuous data indicate (X ± s). Count the number of cases presented with specific information. T-test and Chi-square tests were used to compare the two groups; Pearson correlation analysis was used to analyze the correlation between the two variables; Logistic regression analysis was used to find the possible risk factors. SPSS 17.0 was used to analyze data.

RESULTS 1. In SCF Group, the most common type of SCF is simultaneous three-vessel involvement (n = 35, 31.81%); The most common vascular involvement is LAD (n = 73, 34.76%).
2. The level of sex, smoking history, history of hypertension, diabetes, history of proportion, age, RBC, HGB, hematocrit, MCV, PLT, MPV, FIB, Glu, BUN, creatinine, total cholesterol, total triglyceride, LDL, Apo-B and Lp-a is no significant difference (P > 0.05); The level of PCV, DD and BUA in SCF Group is significantly higher than NCF Group (P < 0.05); The level of HDL and Apo-AI in SCF Group is significantly lower than NCF Group (P < 0.05).
3. Characteristics of coronary luminal: the diameter of left main, proximal LAD, proximal LCX and proximal RCA in SCF Group is significantly larger than NCF Group (P < 0.05).
4. The count of frames of each vessel is positive correlation with the proximal diameter of the vessel (correlation coefficient: LAD = 0.361, LCX = 0.396, RCA = 0.289, P < 0.05).