about small molecule oral direct inhibitor of activated factor X (FXa) anticoagulant (rivaroxaban and apixaban) gradually carried out. The conclusion has show clear pharmacokinetic and efficacy features. Rivaroxaban showed superior effectiveness in the Clinical study RECORD, making it become the first clinical application anticoagulant and not require anticoagulation monitoring. It is proved that rivaroxaban reduce the mortality from deep vein thrombosis, pulmonary embolism and all-cause by 18.9%. Take off to want: it will not increase the risk of bleeding. Rivaroxaban has been used for preventing vein thrombosis in adult elective total hip or total knee replacement. Related trials in the prevention of stroke leading by atrial fibrillation and secondary prevention of acute coronary syndrome (ACS) is in progress. APPRAISE studies show that aspirin or aspirin plus clopidogrel therapy added to 5mg or 10mg apixaban may have therapeutic potential in the hope to prevent second heart attack in ACS patients. And the further tests hope the combination based on standard regimen can effectively reduce the cardiovascular events, stroke and mortality in ACS patients. Currently, apixaban clinical trials in prevention of venous thrombosis and prevention of stroke caused by atrial fibrillation are also on going. Current studies tend to show that, compared with placebo, oral factor Xa inhibitor base on standard regimen can give available benefits in ACS patients. But these findings still need further large-scale controlled studies to confirm the statistical significance.

e0462 RELATIONSHIP BETWEEN RED CELL DISTRIBUTION WIDTH AND COMPLICATION RISK IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION

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Objective To investigate the relationship between red cell distribution width (RDW) level and risk of complication in acute myocardial infarction (AMI) patients; to compare the correlation of RDW with NT-proBNP, cTnI and hs-CRP.

Methods From January 2006 to December 2009, 200 consecutive AMI patients admitted in cardiology department of affiliated hospital of putian university were enrolled. Patients were classified into complication group (n=145) or complication-free group (n=55) according to the presence or absence of new-onset symptomatic heart failure, arrhythmia or cardiac shock. Patients were divided into quartiles based on RDW value ($\leq 12.8\%$, $12.9\% - 13.8\%$, $13.9\% - 14.7\%$, $\geq 14.8\%$, n=50 in each quartile), and OR of incident complication was calculated by using logistic regression. Correlation of RDW with NT-proBNP, cTnI and hs-CRP was compared by spearman rank correlation analysis.

Results RDW levels in complication group was significantly higher than that in Complication-free group ($14.5 \pm 0.97\%$ vs $12.9 \pm 0.85\%$, $p < 0.05$). RDW levels of AMI patients were positively associated with complication risk, after adjustment for estimated glomerular filtration rate, serum ferrum, left ventricular end-diastolic dimension, left ventricular ejection fraction, and plasma NT-proBNP, cTnI and hs-CRP levels, the highest RDW quartile entailed 1.96 times greater risk for complication than the lowest quartile (95% CI 1.34–2.79, P cTnI > hs-CRP (rs=0.31, 0.29 and 0.21 respectively, all $p < 0.05$).

Conclusion Higher RDW is closely associated with increased risk of AMI complication and elevated plasma NT-proBNP and cTnI level.

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Conclusion Higher RDW is closely associated with increased risk of AMI complication and elevated plasma NT-proBNP and cTnI level.

e0464 CLINICAL SIGNIFICANCE OF THE CHANGES OF SERUM TNF- α , IFN- γ , MMP-9

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A variety of inflammatory factors in atherosclerosis (AS) plays a complex role, the combination of two or more of the inflammatory mediators can increase inflammatory mediators in coronary heart disease diagnosis and treatment of value.

Objective To investigate Clinical significance of the changes of serum TNF- α , IFN- γ , MMP-9, oxLDL levels in patients with acute coronary syndrome (ACS).

Method Selected 63 patients who had been done coronary angiography from June 2009 to January 2010 in our hospital. There are 37 males and 26 females, divided into 3 groups: acute myocardial infarction (AMI) group, unstable angina group and the normal control group. According to the results of coronary angiography the patients were divided into 3 groups: acute myocardial infarction group, unstable angina group and the normal control group. There are 27 cases in AMI group, 17 males and 10 females, mean age (62.5 ± 11.4) years. Selection criteria: According to clinical symptoms, ECG changes, myocardial enzyme increases, coronary angiography, all patients are Q-wave myocardial infarction, and the incidence in the 3h~24h. There are 20 patients in UAP group, 13 males and 7 females, mean age (64.4 ± 9.1) years of age. Selection criteria: Overworked deterioration of angina and (or) resting angina, and at least onseted once severe angina in 48h, electrocardiographic

shows ischaemic changes, myocardial enzymes normal, coronary angiography showed at least a coronary artery stenosis degree >70%. The normal control group, there are 22 cases, 12 males and 10 females, mean age (60.8±9.4) years of age. Selection criteria: chest pain, ECG and myocardial enzymes normal, coronary angiography showed coronary artery no stenosis. AMI and UAP patients' blood were taken 5 ml immediately after admission, the normal control group blood were taken 5ml in the next morning. The blood serum was obtained after centrifugated on the same day and placed in -20°C in refrigerator to preserve. Plasma concentrations of TNF- α , IFN- γ , oxLDL, MMP-9 were measured in a day. Using enzyme-linked immunosorbent test (ELISA) test, kit were bought from Adlitteram Dignostic Laboratories, Inc in USA. The operating instructions strictly according to the kit. To read each hole OD value through the length 450 nm microplate. The sample values were taken into four parameters OD fitting formulae, calculated samples density. Use SPSS14.0 statistical software applications to analyse, measurement data using $\bar{x} \pm s$, measurement data use t-test, count data using χ^2 test, $p < 0.05$ for significant difference. Many factors applicative Logistic model do correlation analysis.

Results The plasma level of TNF- α in AMI group and UAP group, no statistical significance ($p > 0.05$), AMI group compared with the control group the serum levels of TNF- α increased significantly ($p < 0.05$), UAP group compared with the control group the serum levels of TNF- α increased significantly ($p < 0.05$). The plasma level IFN- γ AMI group compared with UAP group, no statistical significance ($p > 0.05$), AMI group compared with the control group the serum levels of IFN- γ increased significantly ($p < 0.05$), UAP group compared with the control group the serum levels of IFN- γ increased significantly ($p < 0.05$). MMP-9 plasma levels AMI group compared with UAP group the serum levels of MMP-9 increased significantly ($p < 0.05$), AMI group compared with the control group the serum levels of MMP-9 increased significantly ($p < 0.05$), UAP group compared with the control group the serum levels of MMP-9 increased significantly ($p < 0.05$). The plasma levels of oxLDL AMI group compared with UAP group, no statistical significance ($p > 0.05$). AMI group compared with the control group the serum levels of oxLDL increased significantly ($p < 0.05$). UAP group compared with the control group the serum levels of oxLDL increased significantly ($p < 0.05$).

Conclusion The plasma levels of TNF- α , IFN- γ , MMP-9 and oxLDL in patients with acute coronary syndrome are significant positive correlation. The plasma levels of TNF- α , IFN- γ , MMP-9 and oxLDL can be used to determine the nature of coronary atherosclerotic plaques. The plasma levels of MMP-9 increased hints plaques instability, Also can be used as an important biochemical monitoring index about the risk stratification of coronary artery disease.

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e0465 THE INCIDENCE OF RENAL ARTERY STENOSIS IN THE PATIENTS WITH CHD TREATING WITH VARIOUS THERAPEUTIC REGIMENS

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Introduction Renal artery stenosis (RAS) is one aspect of a multi-territory atherosclerotic disease. This study was to evaluate the incidence of RAS in the patients with CHD treating with various therapeutic regimen.

Method From July 2008 to March 2010, intra-renal arterial digital subtraction angiography was performed in 302 patients who underwent coronary angiography. The incidence of $\geq 50\%$ unilateral or bilateral renal artery stenosis were investigated in the population of the patients without and with CHD treating with various therapeutic regimens as following. By evaluating the coronary angiogram, the patients were not diagnosed to have CHD with less than 50% diameter stenosis of coronary artery; CHD was defined as narrowing of the appropriate lumen of $\geq 50\%$; the procedure of PCI were performed in the patients with more than or equal to 70% stenosis; the CABG had been proposed in patients with left main coronary artery lesions, left main equivalent, diffuse triple coronary artery lesions, two-vessel disease with significant proximal left anterior descending CAD. the intra-renal arterial digital subtraction angiography was performed, the renal artery stenosis was evaluated by three interventional cardiologists. RAS was defined as narrowing of the appropriate lumen of $\geq 50\%$.

Results In 302 patients, 47 patients (15.56%) had not been diagnosed to have CHD; 255 (84.44%) to have CHD, of these patients with CHD, 80 patients (26.49%) were not indicated for PCI, 24 (7.95%) had been performed the procedure of stent implantation, 151 (50%) proposed to have CABG. The incidence rates of renal artery stenosis were 6.38% (3/47) in patients without CHD and 40% (102/302) in patients with CHD ($p = 0.00087$). In the four various therapeutic regimen groups, the incidence rates of RAS were 6.38% (3/47) in the patients without CHD, 35% (28/80) in the patients who were not indicated for PCI, 12.5% (3/24) in the patients performed stent implantation, and 47.02% (71/151) in the patients proposed to CABG. the incidence of RAS of the patients performed stent implantation was significantly lower than the patients who were not indicated for PCI ($p = 0.035$) and the patients proposed to CABG ($p = 0.001$). The age of was significantly older in patients with RAS than without RAS ($p < 0.0005$). The morbidity rate of Diabetes (37.14% and 25.38%, $p = 0.033$), Cerebral infarction (24.76% and 9.65%, $p < 0.0005$) and CHD (97.14% and 77.67%, $p < 0.0005$) were significantly higher in patients with RAS than without RAS. There is trend that more patients with Grade 3 hypertension in RAS group than normal renal artery group (65.71% vs 55.84%, $p = 0.096$). There were more patients with very high risk factors for cardiovascular diseases in RAS group than normal renal artery group (90.48% vs 78.68%, $p = 0.01$).

Conclusion The incidence of RAS was 6.38% in patients without CHD and 40% in patients with CHD. The incidence of RAS of the patients who were not indicated for PCI or proposed to CABG was higher than the patients performed stent implantation and patients without CHD. the age, Diabetes, Cerebral infarction, CHD, Grade 3 hypertension, and very high risk factors for cardiovascular diseases are the risk factors for RAS.

e0466 VARIOUS THERAPEUTIC PROPORTION OF THE PATIENTS WITH TYPE 2 DIABETES MELLITUS UNDERGONE CORONARY ANGIOGRAPHY IN THE ERA OF DEVELOPMENT IN MSCT

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Introduction Diabetic patients are prone to a diffuse and rapidly progressive form of atherosclerosis, which increases their likelihood of requiring evascularization. This study was to examine the various therapeutic proportion of the population of the patients with type 2 diabetes mellitus undergone coronary angiography in the era of development in MSCT in the real clinical practice.