Results The level of MPO in CHD group was significantly higher than that in the control group, and the level of PON level was significantly lower than that in the control group. In ACS group, MPO level was also significantly higher than that in SAP group, and the PON level was significantly lower than that in the SAP group. When the CHD is more severer, the MPO level will be more higher and the level of PON will be more lower. With coronary artery disease type and the severity of coronary artery disease, MPO levels increased gradually, while the PON level decreased gradually, step-wise regression analysis showed that MPO, PON, HDL, LDL concentrations were related significantly with the Gensini score of coronary lesions.

Conclusion MPO, PON1 would be better indicators to reflect the local inflammation of atherosclerotic plaque, LDL can affect the conversion of ox-LDL by MPO, PON1. So that, it can be the key mechanism of atherosclerotic plaque's stability. Through detection of serum pro-inflammatory factor (MPO), and anti-inflammatory factor (PON1) levels in CHD patients and investigate their relationship with CHD and coronary artery disease, further analysis of the imbalance of pro-inflammatory cytokines and anti-inflammatory factor may be particularly important in the pathological significance in coronary heart disease, especially in acute coronary syndrome, and provide a new basis for the diagnosis and prediction of coronary heart disease and coronary artery disease.

Liu Fucheng, Chen Luyuan. *Guangdong Cardiovacular Institute, Guangdong, China*

Objectives The present study was aimed to explore whether plasma N-terminal pro brain natriuretic peptide was associated with oxidative stress in patients with chronic stable coronary artery disease.

Methods Plasma levels of N-terminal pro brain natriuretic peptide, hemeoxygenase-1 and oxidative low-density lipoprotein were determined by electrochemiluminescence and ELISA respectively in ninety-four patients with chronic stable coronary artery disease and 35 controls without coronary artery disease confirmed by coronary angiography. Correlations were analysed among these three biochemical marks.

Results Logarithms-transformed levels of N-terminal pro brain natriuretic peptide and oxidative low-density lipoprotein in patients with chronic stable coronary artery disease were both higher than the controls (5.01 ± 0.14 vs 3.73 ± 0.16 Ln mg/l, $p<0.001$; 2.38 ± 0.09 vs 0.09 ± 0.13 Ln ug/l, $p<0.001$), whereas squart-root-transformed level of hemeoxygenase-1 was lower than the controls (6.10 ± 0.24 vs 13.96 ± 0.86 Sqrt ug/l, $p<0.001$). The difference in these three biochemical marks between the two groups was still in presence after being adjusted by age, sex, blood glucose, lipids and left ventricular ejection fraction. However, there wasn't difference in them in subgroup analysis by coronary artery lesion count. Logarithms-transformed levels of N-terminal pro brain natriuretic peptide and oxidative low-density lipoprotein were associated with each other positively ($r=0.281$, $p<0.05$), whereas logarithms-transformed level of N-terminal pro brain natriuretic peptide was correlated to squart-root-transformed level of hemeoxygenase-1 negatively ($r=-0.277$, $p<0.05$). Squart-root-transformed level of hemeoxygenase-1 was associated with logarithms-transformed level of oxidative low-density lipoprotein negatively ($r=-0.575$, $p<0.001$). After being adjusted by age, sex, blood glucose, lipids and left ventricular ejection fraction, logarithms-transformed level of N-terminal pro brain natriuretic peptide was still associated with logarithms-transformed level of oxidative low-density lipoprotein positively ($r=0.269$, $p<0.05$) and with squart-root-transformed level of hemeoxygenase-1 negatively ($r=-0.261$, $p<0.05$).

Conclusions N-terminal pro brain natriuretic peptide was closely associated with oxidative stress in patients with chronic stable coronary artery disease. However the details of the interaction between brain natriurectic peptide and oxidative stress remain unknown.

Li Ning, Li Shuijun, Yu Chen, Gu Shuiming. *Shanghai Xuhui Central Hospital*

Objective Lipoprotein-associated phospholipase A$_2$ (Lp-PLA$_2$) is a useful inflammatory marker of cardiovascular risk, but there are only few reports of its prognostic significance as a risk factor for acute coronary syndrome (ACS). It is necessary to evaluate the association of Lp-PLA$_2$ with major cardiovascular events (MCVE) in patients with ACS and assess its incremental value for risk discrimination over established risk factors and biomarkers.

Methods 152 patients with ACS and one hundred forty-two patients without coronary artery disease (CAD) from Shanghai Xuhui District (aged <80 years) were enrolled from February 2007 to March 2008 and followed for a median of 6 months (4−10 months). Plasma Lp-PLA$_2$ activity was measured at baseline with liquid chromatography tandem mass spectrometry. Its clinical significance was evaluated with existing risk indicators.

Results Lp-PLA$_2$ activity was higher in patients with ACS than that in patients without CAD (22.36 ± 1.23 mg/ml vs 19.74 ± 3.85 mg/ml; $p=0.027$). During the follow-up period, 5 cases of cardiovascular death, 8 cases of non-fatal myocardial infarction, and 11 cases of target vessel revascularization occurred. Elevated Lp-PLA$_2$ was associated with an increased risk of MCVE (HR, 1.52; 95% CI, 1.09 to 2.37; $p=0.033$). The Lp-PLA$_2$ activity level in incidental cases was higher than that in non-incidental cases ($p=0.04$).

Conclusion In this community-based cohort of patients with ACS, Lp-PLA$_2$ was strongly and independently associated with major cardiovascular events and contributed incrementally to risk discrimination.

Liao Wei, Zhou Aiqin. *The Affiliated Hospital of Gannan Medical College*

Objective To analyse the relationship between in patients with acute coronary syndrome (ACS) at 48 h after percutaneous coronary intervention (PCI) and the relationship between the variation of brain natriuretic peptide (BNP) and the short and long-term cardiovascular events.

Methods 156 patients with ACS were given conventional preoperative and postoperative medication and standardised PC1. Plasma levels of BNP were measured at 48 h after operations. All patients were divided into two groups according to the level of BNP: A group

(BNP>80pg/ml) and B group (BNP<80pg/ml). The incidence of cardiovascular events during hospitalisation and at 6 months after PCI was analysed.

Results Cardiovascular events during hospitalisation in A group included 12 cases, of which 3 died, heart failure occurred in 7 cases; recurrence myocardial infarction and angina in 1 case. 6 months after PCI, there were 4 cases of patients with heart failure and angina occurred in 5 cases. In group B, there were 7 cases of cardiovascular events, 0 deaths, 5 cases of heart failure, angina occurred in 2 cases. Six months later, cardiovascular events occurred in 6 cases, non-cardiac death in 2 cases; heart failure in 3 cases and angina in one. Compared with B group, the incidence of cardiovascular events in A group was significantly higher during hospitalisation (p<0.01), but no different at 6 months after PCI (p>0.05).

Conclusion BNP concentration in patients with ACS at 48 h after PCI can only predict short-term prognosis, but cannot predict the long-term prognosis.

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e0383 | BASELINE CHARACTERISTICS OF MYOCARDIAL INFARCTION SECONDARY PREVENTION STUDY IN TRADITIONAL CHINESE MEDICINE (MISPS-TCM)

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Objective To evaluate Qishenyiqi Dripping Pills (QSYQ) on the efficacy of secondary prevention of myocardial infarction, improvement the evaluation system of coronary heart disease in traditional Chinese medicine (TCM), and to further establish the research methods and corresponding technical specifications of evidence-based medicine in TCM.

Method MISPS-TCM, (a multicenter, large sample, central randomised system, double-blinded, double dummy and positive drug) controlled parallel trials conducted at 18 centers and 88 hospitals in China, which enrolled patients aged 75 years or younger with a history of AMI between 28 days to 2 years, and complicated with syndromes of Qi-deficiency and blood-stasis. The sample size estimated to be 3600 patients were randomly divided into two groups according to the ratio of 1:1, the treatment group taking QSYQ and aspirin simulation, and the control group taking aspirin and QSYQ simulation for 18 months. The primary endpoint was non-fatal reinfarction or stroke, or cardiac death, combined with angina pectoris and TCM symptom scores and the Seattle Angina Questionnaire.

Results From November 20, 2005 to October 16, 2008, 3505 patients with AMI were entered into the study: 1746 were assigned to QSYQ, and 1759 were assigned to aspirin. Final follow-up visits were conducted on April 20, 2010. The study had 2451 men (69.9%). The mean age was 58.3 (SD: 9.0). The mean duration was 9.5 months (SD: 7.2). Disease history: 44% patients had hypertension, 39% had hyperlipidaemia, 13% had diabetes, 12% had gastritis and so on. Drug treatment history: 80% were taking antiplatelet drugs, 72% taking nitrates, withβ receptor blocking 45%, cholesterol lowering agents present in 41%, ACEI/ARB 38% and so on. The male ratio, height, smoking and drinking in QSYQ group were slightly lower than in aspirin, however, the other baseline characteristics bore no difference between the two groups, such as demographic information, diagnosis history, medication history, risk factors, angina and TCM symptom scores and the Seattle Angina Questionnaire.

Conclusion Baseline characteristics were well balanced between the two groups that for further analysis and evaluation.

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e0384 | THE ANALYSIS OF CLINICAL AND CORONARY ANGIOGRAPHIC CHARACTERISTICS FOR PRE-MENOPAUSAL WOMEN WITH CORONARY HEART DISEASE

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Objective To analyse the clinical and coronary angiographic characteristics for pre-menopausal women with coronary heart disease in Jining City, Shandong Province.

Methods 85 female patients with pre-menopausal coronary angiography (CAG) were chosen in Jining First People's Hospital from May 1, 2001 to May 30, 2010. The patients were divided into Coronary Heart Disease (CHD)group and non-CHD group according to coronary angiography. According to ≥50% stenosis of coronary artery, the patients were divided into three groups: single vessel disease, double vessel disease and triple vessel disease. Risk factors for CHD and angiographic characteristics were analysed. WHO diagnostic criteria was used in the diagnosis of hypertension and diabetes.

Result 31 patients were diagnosed with coronary heart disease, 54 patients diagnosed with normal coronary artery. Comparison of risk factors between the two groups: patients with hypertension were 49.4% vs 31.0%, with diabetes were 14.3% vs 3.1%, hyperlipidaemia was 53.6% vs 25.1%, coronary heart disease risk factor's family history 37.8% vs 12.6%. Results were above target and there was a significant difference between the groups. The family history of coronary heart disease 27% vs 19.1% showed no difference between the two groups. Typical angina symptoms more common in CHD group, mainly those with acute coronary syndrome. Single-vessel disease, coronary artery disease are more common, with an occurrence rate of 70.97% (22/31), two vessel disease 19.35% (6/31), three vessel disease 0.97% (3 /31). Anterior descending artery involvement is most likely occurring at a rate of 96.77% (30/31), lesion calcification was much lower in rate of occurrence due to the narrowing of the main limitations.

Conclusion Hypertension, diabetes, hyperlipidaemia and family history of coronary heart disease are risk factors. These risk factors are not as significant a risk factor in pre-menopausal women with coronary heart disease. Coronary artery disease occurs mainly in single-vessel diseased. With the appearance of typical clinical symptoms of angina and multiple risk factors, especially a family history of pre-menopausal female patients, the possibility of major coronary heart disease is larger. For a clear diagnosis, CAG should be performed as soon as possible, in order to avoid misdiagnosis and missed diagnosis. For some patients Target lesion revascularization is necessary.

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e0385 | ANKLEBRACHIAL INDEX AS A PREDICTOR FOR THE SEVERITY OF CORONARY ARTERY STENOSIS

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Objective To study the relationship between ankle-brachial index (ABI) and the severity of coronary artery stenosis.

Method This study enrolled 180 patients, who underwent coronary angiography and ABI measurement in addition to date collection regarding cardiovascular risk factors. They were divided into two