Clinical and Research Medicine: Coronary Heart Disease

**e0364** ASSESSMENT OF EFFECTS OF ENHANCED EXTERNAL COUNTERPULSATION ON SILENT MYOCARDIAL ISCHAEMIA AND LEFT VENTRICULAR DIASTOLIC FUNCTION IN PATIENTS WITH CORONARY HEART DISEASE

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Su-Hang Zhu, 1Lian-Wang Jia. 1Jinhua college of profession and technology, Jinhua, Zhejiang, China; 2Jinhua central hospital, Jinhua, Zhejiang, China

**Objective** To assess the efficiency of enhanced external counterpulsation (EECP) on silent myocardial ischaemia (SMI) and left ventricular diastolic function (LVDF) in patients with coronary heart disease.

**Methods** 78 cases of coronary heart disease were randomly into group A (39 cases) and group B (39 cases). The group B was treated with normal treatment aspirin, isosorbide mononitrate metoprolol and pavasatatin, the group A was treated with EECP based on the normal treatment for 4 weeks. The changes of myocardial ischaemia and cardiac function were observed by DynamicECG and Doppler echocardiography combination with tissue Doppler imaging (TDI) before and after treatment.

**Results** Frequency and sustained time of ST segment depression, and total loading of myocardial ischaemia were decreased significantly in two groups (p<0.01 respectively) after treatment, but it decreased more significantly (p<0.01) in group A than in routine group B. There was no obvious difference (p>0.05) on the left ventricular systolic function (CO, EF) between the two groups after treatment. LVDF was reduced in patients of two groups before treatment. After treatment indexes of LVDF (E, A, E/A, DC, Ea, Aa, Ea/Aa, E/Ea) were improved (all p<0.01) in the group A, while there were different (p<0.05) in group B before and after treatment. However LVDF in group A was better (p<0.01) than that of group B. No sever adverse effects found in treating with EECP.

**Conclusion** There has obvious therapeutic efficacy of EECP on SMI and LVDF in patients with coronary heart disease.

**e0365** CLINICAL STUDY ON RELATIONSHIP BETWEEN SERUM GAMMA-GLUTAMYLTRANSFERASE AND CORONARY HEART DISEASE IN WOMEN

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Song Jing, Wei Yidong, Fu Yuanyuan, Wang Yong, Hou Lei, Xu Yawei. Department of Cardiology Shanghai Tenth People’s Hospital Tongji University

**Objective** To study the relationship between serum gamma-glutamyltransferase (GGT) and coronary heart disease (CHD) in women.

**Methods** 636 patients (354 men, 282 women) undergoing coronary angiography were enrolled from March 2009 to November 2009 in the department of cardiology, Shanghai Tenth People’s Hospital, Tongji University. The various indicators of blood testing and clinical data were collected among 656 patients. According to the results of coronary angiography, men and women respectively divided into CHD group and non-CHD group. According to the level of serum GGT, men and women respectively divided into five grade groups (normal low, normal high, moderately elevated, elevated, highly elevated).

**Results** The serum GGT levels in CHD group were statistically different from those in non-CHD group in women (p=0.010) but not in men (p=0.480). More women had elevated serum GGT levels in CHD group than those in non-CHD group (p=0.009, OR=1.377), but this significant difference was not found in men (p=0.427, OR=0.829). The prevalence of CHD in women was significantly increased as serum GGT levels elevated (p=0.012), but this trend was not found in men (p=0.569). The levels of alanine aminotransferase (ALT), aspartate aminotransferase (AST), direct bilirubin (DBIL), post prandial blood glucose (FBG) and the values of Ln transferrin (lnTf) in women were positively correlated with the values of ln serum GGT levels (lnG) separately, but levels of high density lipoprotein cholesterol (HDL-C) were negatively correlated with lnG. The levels of ALT, uric acid (UA), fasting blood glucose (FBG), total cholesterol (TC) and lnTf in men were positively correlated with the values lnG separately. Logistic regression indicated that serum GGT was independent risk factor of CHD in women (OR=1.782, 95% CI 1.045 to 3.043, p=0.034).

**Conclusion** (1) Serum GGT was correlated with morbidity of CHD in women. (2) The prevalence of CHD in women was significantly increased as serum GGT levels elevated. (3) The values of lnG were positively correlated with the levels of FBG and the values of lnTf in women, but negatively correlated with the levels of HDL-C. (4) Serum GGT was independent risk factor of CHD in women.
Control group (all p<0.01), but the difference of the cfrFW in both groups was not significant in comparison with baseline (all p>0.05).

**Conclusions** The composite salviae dropping pill, a traditional Chinese medicine, can decrease blood lipids and improve large artery elasticity in patients with CHD or coronary risk factors.

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**e0367** EFFECT OF TREATMENT OF HEPATOCYTE GROWTH-PROMOTING FACTOR ON IMPROVEMENT OF MYOCARDIAL ISCHAEMIA AND CARDIOPULMONARY FUNCTIONAL CAPACITY DURING THE EXERCISE IN PATIENTS WITH SEVERE CORONARY HEART DISEASE

Ningfu Wang, Guixin Tong, Hao Pan, Jian Xu, Feng Ling, Xingwei Zhang. Department of Cardiology, The First People's Hospital of Hangzhou and Affiliated Hangzhou Hospital of Nanjing Medical University, Hangzhou, China

**Objective** To test the hypothesis that the treatment of hepatocyte growth-promoting factors (pHGF) by venous injection improves myocardial ischaemia, kinetics of oxygen uptake (VO2) and cardiopulmonary functional capacity during exercise in patients with severe coronary heart disease.

**Methods** 88 patients enrolled for a two-week treatment period were divided into pHGF group (30) and control (28). Treadmill graded exercise tests with gas analysis were conducted before and after treatment to evaluate the changes of cardiorespiratory function and myocardial ischaemia. LVEF was measured by ultrasound cardiography.

**Results** The degree of exercise-induced ST segment depression (⊿ST) were decreased significantly and HRmax and HRmax/⊿ST increased significantly in pHGF group. Compared to the control, total exercise time were prolonged more significantly and total exercise time/⊿ST and total work load were also increased more significantly in pHGF group. Maximal heart rate, VO2 peak and anaerobic threshold (AT) were increased more significantly in pHGF group than in control. Peak oxygen pulse was improved also significantly by 1.09 ml/beat in pHGF group. But there are no changes of LVEF in both group.

**Conclusions** The treatment of pHGF by venous injection improves favourably myocardial ischaemia during exercise, improves VO2 and AT further and enhances their exercise capacity on the basis of conventional medication.

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**e0368** EVALUATION OF THE EFFECT ON THE MANAGEMENT OF PATIENTS SUFFERING FROM CORONARY ATHEROSCLEROTIC HEART DISEASE COMBINED WITH CHRONIC HEART FAILURE

Wang Ningfu, Zhong Yigang, Li Hong, Guo Shizhuang. Department of Cardiology, The First People's Hospital of Hangzhou and Affiliated Hangzhou Hospital, Nanjing Medical University, Hangzhou, China

**Objective** To study the effect on the management of patients suffering from coronary atherosclerotic heart disease combined with chronic heart failure.

**Method** 1109 patients who discharged from our department were enrolled randomly. These patients were ranked as the manage group and control group. Patients in manage group accepted standardised management out of hospital, regular health education, and were followed up in the form of telephone and outpatient visit.

**Result** Compared with the control group, the manage group showed the lower rate of all cause of death, cardiac death and readmission due to cardiovascular events (CVE), declined by 32.0%, 36.5% and 58.4% respectively. All cause of death, cardiac death and readmission due to CVE in manage group had significantly negative correlation with the years of death. But there was no ascendency in reducing the rate of stroke and myocardial infarction.

**Conclusion** Through standardised management out of hospital, patients who were suffering from coronary atherosclerotic heart disease combined with chronic heart failure got significant benefit in reducing the rate of all cause of death, cardiac death and readmission due to CVE, and survival rate of patients was improved.