e0585 THE RELATIONSHIP BETWEEN RESPONSES OF BLOOD PRESSURE TO EXERCISE STRESS AND CHANGES OF ENDOTHELIUM DEPENDENT VASODILATATION IN REST BLOOD PRESSURE WELL-CONTROLLED PATIENTS WITH HYPERTENSION

doi:10.1136/hrt.2010.208967.585

Yangbo Xing, Hangyuan Guo, Fangfang Yang. *Department of Cardiology, Shaoxing People's Hospital, Shaoxing, China*

Objective To measure the relationship between responses of blood pressure to exercise stress and changes of endothelium dependent vasodilatation in rest blood pressure well-controlled patients with hypertension.

Method 60 rest blood pressure were well-controlled patients with hypertension were divided into two groups: exercise hypertension (Group A) and normal exercise blood pressure (Group B), and 30 normal persons were control group (Group C). Endothelium-dependent vasodilatation was assessed in the brachial artery by high resolution ultrasound technique before exercise and exercise stress test was assessed by 6-min walking test. Blood pressure (BP) and heart rate was measured before, at the time of the end of exercise and at 10, 20, 30 min after exercise. The serum concentrations of nitric oxide (NO), endothelin -1(ET-1) were measured before exercise and at the time of the end of exercise.

Result Compared with group B and Group C, FMD% in Group A significantly decreased ($p<0.05$). Immediately after exercise, SBP, DBP, HR in three groups significantly increased and dropped down to the original level at 10 min after exercise. Compared with group B and group C, the change of SBP, DBP in group A was the more obvious. Before exercise the concentrations of NO in group A was the lower than group A and B ($p<0.05$). Immediately after exercise there was significant increase of NO in three groups, and the change in group B and C was the higher ($p<0.05$). Compared with group B and group C, the concentrations of ET-1 in group A were significantly increased before exercise. Immediately after exercise there was no significant change of the concentrations of ET-1 in three groups. There was significant negative correlation between increasing-range of DBP and FMD ($p<0.05$); There was significant negative correlation between increasing-range of SBP and the change of NO ($p<0.05$), significant positive correlation between increasing-range of DBP and the change of NO ($p<0.05$); There was no correlation between increasing-range of SBP or DBP and the change of ET-1, and there was no correlation between increasing-range of HR and the FMD or the change of NO and ET.

Conclusion BP could increase after exercise in rest blood pressure well-controlled patients with hypertension. Endothelium dependent vasodilatation, the serum concentrations of NO, but not the serum concentrations of ET-1 could be related to change of DBP and SBP.

e0586 EFFECT OF GLOMERULAR FILTRATION RATE AND MICROALBUMINURIA ON THE DAMAGE OF TARGET ORGAN IN ESSENTIAL HYPERTENSION

doi:10.1136/hrt.2010.208967.586

Zhang Ying, Xu Xinjuan, Simayi Zhulepiya, Chen Yulan. *The First Teaching Hospital of Xinjiang Medical University*

Objective To observe the character of Ambulatory Blood Pressure Monitoring and the damage of target organs in hypertensive patients with abnormal GFR and (or) MAU. To observe the correlated factors of GFR and MAU.

Methods Our study population consisted of 202 cases of essential hypertensive patients (male 109, female 93, Han people 128, wei people 52, other race people 22, age 18–82 years, mean age is

44.39±11.32 years). Based on the value of GFR and MAU, the patients were divided into three groups and two groups departed. To analyse the index of ambulatory blood pressure, blood fat, blood glucose and the degrees of the damage of target organ in these groups. To analyse the correlation factor of GFR and MAU with statistical method.

Results (1) The all systolic blood pressure, the diastolic blood pressure in night and the pulse pressure in GFR<60 ml/min/1.73 m² group is higher than the other two groups. The incidence of Ventriculus sinister plump, carotid arteries, abnormal cerebral blood flow in GFR<60 ml/min/1.73 m² group is higher than the other two groups. (2) The all index of ambulatory blood pressure except the morning systolic and diastolic blood pressure, blood fat and blood glucose in 24 h MAU≥30 mg/d group is higher than the other group. No difference on the damage of target organ in these two groups. (3) The regression result display that GFR is associated with age and serum creatinine. MA is associated with the systolic blood pressure, fasting blood glucose and GFR.

Conclusions There is show that the cardiovascular incidence rate in essential hypertension patients with renal dysfunction is higher than pure essential hypertension. GFR is decline with the raise of age and serum creatinine. MA is increased with the decline of GFR and the raise of systolic blood pressure, fasting blood glucose.

e0587 OBSERVATION OF AMIODARONE COMBINING LOSARTAN AND SHENSONGYANGXIN CAPSULE ON MAINTAIN SINUS RHYTHM WITH HYPERTENSION AFTER ATRIAL FIBRILLATION REVERSION

doi:10.1136/hrt.2010.208967.587

Wang Xining. *Changsha County People's Hospital in Hunan, Changsha, China*

Objective To observe losartan combining with amiodarone and shensongyangxin capsule on maintain sinus rhythm with hypertension after atrial fibrillation reversion.

Methods 105 patients with hypertention after atrial fibrillation reversion were randomly divided into three groups. Group A was treated by amiodarone; Group B was treated by amiodarone and losartan; Group C was treated by amiodarone combining with losartan and shensongyangxin capsule. All patients were treated with general anti-hypertension therapy except ACEI and ARB. All patients were examined with UCG and Holter monitor before and after 12 months' therapy.

Results The left atrial dimension of the patients in Group B and Group C were smaller than those in Group A ($p<0.05$), the rates of maintaining sinus rhythm in Group B and Group C were higher than those in Group A ($p<0.05$, $p<0.01$), especially the Group C which was even more obvious ($p<0.01$).

Conclusion Amiodarone and losartan should be used to treat the patients with hypertension and atrial fibrillation, losartan also has definite curative effect in maintaining sinus rhythm. However combined with shensongyangxin capsule, the effect should be better.

e0588 THE LONG-TERM PHARMACOECONOMIC ECONOMIC EVALUATION OF TWO INITIAL COMBINATION THERAPY REGIMENS FOR HYPERTENSION USING MARKOV MODEL

doi:10.1136/hrt.2010.208967.588

¹Haiqiang Sang, ²Ming Sun, ²Hongyan Zhou. *¹Zhengzhou People's Hospital; ²Xiangya Hospital of Central South University*

Objective Our aim was to apply Markov model to the Pharmacoeconomic evaluation of the effect with long-term low doses of amlodipine plus amiloride or telmisartan antihypertensive therapy, to provide a basis for the selection of optimised combination