

**e0240 EFFECTS OF ATORVASTATIN ON THE EXPRESSIONS OF PECAM-1 AND P-SELECTIN IN ATHEROSCLEROTIC RABBITS**

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Liao Wei, Cai Jiumei, Li Faquan. *The Affiliated Hospital of Gannan Medical College, Jiangxi, China***Objective** To investigate the effects of atorvastatin on atherosclerotic rabbits serum lipid concentration and the expressions of PECAM-1 and P-selectin in rabbit thoracic aorta.**Methods** Atherosclerotic rabbit models were made by feeding the rabbits with high cholesterol. Thirty New Zealand big rabbits, weight (2.0±0.2) kg, were randomly divided into three groups. Group A was fed with common forage, Group B was fed with high cholesterol diet, and group C was fed with high cholesterol diet and atorvastatin simultaneously. After 16 weeks feeding, serum TC, TG, LDL-C, VLDL-C were measured. The aortic arteries were isolated and the samples adjacent to aortic arch were harvested for formicroscopy detection. The PECAM-1 and P-selectin gene expressions in rabbit thoracic aorta were detected by RT-PCR.**Results** The levels of TC, TG, LDL-C, VLDL-C in group B were significantly increased compared with group B and group C (p<0.05), while the levels of TC, TG, LDL-C, VLDL-C in group C were higher than those in group A (p<0.05). The aorta structure in group A was clear, the aortic intimal in group B was significantly thick and infiltrated by a large number of foam and inflammatory cells, but the endothelium in group C only showed focal infiltration of those cells observed under the microscope. The mRNA expression of PECAM-1 and P-selectin in group B were significantly increased than in group A (p<0.01), while those in group C, which were also higher than group A, were significantly decreased than in group B (p<0.05).**Conclusions** Atorvastatin regulates lipid metabolism effectively and reduces the PECAM-1 and P-selectin expression, which are closely related to atherosclerosis.**e0241 EVALUATE SERIATE PROGRESS OF VULNERABLE PLAQUE BY OPTICAL COHERENCE TOMOGRAPHY ON RABBIT VULNERABLE PLAQUE MODEL**

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signal represent the fibrous cap. Signal high bright region contain radial pattern that showed in the thin cap with lipid rich plaque was infiltrated with large macrophage; At 12th week (n=4), OCT showed the lumen area was severely stenosis due to the large protrusion or ringed-shaped plaque formation. Fibrous cap thickness were less than 65 µm (mean value=0.038±0.01 mm). While, 28.6% of the plaques were total occlusion lesion. Total Cholesterol (TC) was at 6 weeks 36.77±0.80 mmol/l, 8 weeks 38.10±1.92 mmol/l, 10 weeks 35.94±0.93 mmol/l, 12 weeks 35.36±1.30 mmol/l; Low density lipoprotein (LDL) was 26.79±4.64 mmol/l at 6 week, 20.72±2.07 mmol/l at 8 weeks, 19.83±1.96 mmol/l at 10 weeks, 19.83±1.96 mmol/l at 12 weeks.

**Conclusion** Balloon injury intima and subsequently high fat diet for 12 weeks can successfully establish the vulnerable plaque animal model. Plaques with large lipid core and thin cap were tend to rupture with subsequently thrombus. This process was the same as human beings, so that we can study the process of the vulnerable plaque formation using optical coherence tomography to display early stage imaging characteristics of the plaque. With the long time high fat diet, Total Cholesterol (TC) and Low Density Lipoprotein (LDL) had sharply increased which have a strong relativity with the stability of the plaque. Thus, we can use blood fat test to predict the stability changes of the plaque.**e0242 CHANGES OF ADIPONECTIN EXPRESSION IN ACUTE MYOCARDIAL INFARCTION RATS AND THE SIGNIFICANCE OF BISOPROLOL INTERVENTION**

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<sup>1</sup>Song Zhang, <sup>1</sup>Baiming Qu, <sup>1</sup>Lixuan Wu, <sup>2</sup>Zuyue Wang. <sup>1</sup>Department of Cardiovascular Diseases, People's Hospital, Zhejiang Province, China; <sup>2</sup>Department of Cardiology, Washington Hospital Center, Washington, USA**Background and Aims** The aim of this study was to explore the expression changes of myocardial APN in acute myocardial infarction (AMI) rats, changes of serum APN, and the significance of Bisoprolol intervention.**Methods** AMI rat model was established for the purposes of this study and was used for analysis of serum APN as determined by ELISA. Expression changes of myocardial APN mRNA in AMI rats were determined via RT-PCR and expression changes of myocardial APN protein were determined by the way of immunohistochemistry.**Results** Serum APN concentration and APN protein expression of the myocardium decreased significantly in the AMI groups compared with the sham operation group, with the lowest serum APN and APN protein expression on day 7 after AMI. On days 7 and 10 after AMI, the expression of myocardial APN mRNA in the AMI groups decreased significantly compared with the sham operation group. However, the APN mRNA increased on day 10 compared with that on day 7. Notably, there was an increase in levels of serum APN and myocardial APN expression after Bisoprolol intervention.**Conclusions** The expression of myocardial APN and serum APN decreased in AMI rats. APN may be an important protective factor against AMI. Bisoprolol can also protect against AMI due to its increasing APN expression.**Epidemiology and Preventive Medicine: Epidemiology of Cardiovascular Disease****e0243 A STUDY ON EPIDEMIOLOGICAL TREND OF ELDERLY HYPERTENSION IN BEIJING**

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Ali-Na, Tang Zhe, Zhao Xiao-Ling, Guan Shao-Chen, Sun Fei, Liu Hong-Jun, Wu Xiao-Guang, Diao Li-Jun. *Capital University of Medical Science, Beijing, China***Object** To explore the epidemiological trend of elderly hypertension, so as to provide basis for prevention of hypertension.

**Method** A group of 2832, 1828, 2277 elderly residents aged  $\geq 60$  in Beijing were chosen into this study in the year 2000, 2004, 2007 by well-established statistical sampling techniques such as cluster, stratification and random selection, and epidemiological trend of elderly hypertension was analysed by  $\chi^2$  analysis.

**Result** The prevalence rate (69.2%, 61.9%, 56.0%) of hypertension and the control rate (22.6%, 16.7%, 21.5%) lowered annually, and awareness rate (43.7%, 55.8%, 57.6%) of treatment elevated annually. There was no rising in the control rate of male (26.2%, 16.7%, 20.8%), less older (28.0%, 18.4%, 21.0%) and rural (19.5%, 9.6%, 13.4%).

**Conclusion** The results indicate that the prevalence of hypertension is high in the elderly rural people, while the rates of awareness, treatment and control are low. It suggests that effective public measures need to be developed to improve the prevention and control of hypertension.

**e0244 HOW LOW WE SHOULD GO IN ELDERLY PATIENTS WITH TYPE 2 DIABETES AND HYPERTENSION IN CHINESE HAN PEOPLE**

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**Background** The benefits of lowering systolic blood pressure (SBP) below 140 mm Hg in elderly patients with type 2 diabetes and hypertension are unclear.

**Methods** Elderly (age  $\geq 65$  years) patients with type 2 diabetes and hypertension underwent 12-lead ECG. The R-wave voltage in lead aVL (RaVL  $\geq 0.57$  mV) was used to assess CVD risk. GFR was estimated by Cockcroft-Gault formula. 235 patients were tight SBP controlled (130–139 mm Hg), and 472 patients were less tight SBP controlled (140–159 mm Hg).

**Results** The height of RaVL and risk of the height of RaVL  $\geq 0.57$  mV was no significance difference between the two groups, but some decline in eGFR was found in the less tight control group (adjusted mean 55.61 vs 59.65,  $p=0.06$ ) although the decrease was not statistically significant.

**Conclusions** In elderly patients with type 2 diabetes and hypertension, to achieve the target SBP of below 140 mm Hg seems reasonable.

**e0245 A REPORT OF 511 INHOSPITAL CARDIOPULMONARY RESUSCITATION BASED ON THE UTSTEIN STYLE**

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**Aim of the Study** To use the Utstein Templates for Resuscitation Registries to evaluate the outcome and impact factors of cardiopulmonary resuscitation (CPR) at Hainan Provincial People's Hospital in China.

**Material and Methods** According to the "Utstein style" for CPR, a CPR registry form was designed and registry research methods were employed to study the epidemiological characteristics, outcome, and impact factors of CPR in 511 patients presented to the Emergency Department requiring CRP.

**Results** A total of 511 CPR patients were registered, including 356 males (69.7%). The highest CPR rates were observed for 45–54, 55–64, and 65–74 year old patients. Cardiovascular diseases (190 cases, 36.5%) and cerebrovascular diseases (48 cases, 9.2%) were common in the medical histories of included patients. The ROSC and survival to discharge rates were 46.96% (139 patients) and 13.51% (40 patients) in patients treated only with in-hospital CPR

but 16.74% (36 patients) and 4.65% (10 patients), in CPR patients treated prior to presentation to the Emergency Department ( $p<0.01$ ), respectively.

**Conclusions** These results are comparable with those of international horizontal studies using the "Utstein style." Nonetheless, the data collected in this study indicate that the survival to discharge rates for patients treated with in-hospital CPR are low and that the effectiveness of CPR needs to be improved.

**e0246 THERAPEUTIC EFFECT OF A DUAL-CHAMBER PACEMAKER WITH THE OPTIMISED PROGRAM-CONTROL MODE ON LONG-QT SYNDROME**

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**Objective** To explore the optimised program-control mode of a dual-chamber pacemaker combined with  $\beta$ -blocker to treat congenital long QT syndrome (LQTS).

**Methods** 12 LQTS patients in our hospital that still have symptoms despite use of regular drug therapies or that can not endure the therapies were implanted with DDD cardiac pacemaker. The QT/QTc intervals of those patients were measured at different pacing rates respectively. Their cardiac pacemakers were all programmed to selectively turn on and turn off some related functions at the pacing rate of 80 beats/min. The dosage of  $\beta$ -blockers was adjusted according to the patients' PR intervals and blood pressures. The MACE and the cardiac function of the patients were recorded after operation.

**Results** The measured QT/QTc interval decreased with the pacing rate increasing. The pacing rate of 80 beats/min can make QT/QTc interval basically normal. The MACE of the patients were statistically declined ( $p=0.003$ ) and no negative effect on cardiac function was found during the follow-up.

**Conclusion** The optimised program-control mode of a dual-chamber pacemaker combined with  $\beta$ -blocker to treat congenital LQTS are: to pace at the rate of 80 beats/min and program to turn off lag, sleep, automatic preventing PMT and automatic threshold-capture feature and turn on the PVC, rate adaptation and atrioventricular node priority function.

**e0247 PREVALENCE OF METABOLIC SYNDROME AND ITS EFFECT ON CAROTID ARTERY INTIMA-MEDIA THICKNESS IN XINJIANG KAZAK POPULATIONS**

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**Objective** To investigate the prevalence of metabolic syndrome (MS) in Xinjiang Kazak populations, and explore the effect of metabolic syndrome on Carotid artery intima-media thickness in Kazak populations.

**Methods** A cross sectional study was conducted in 1610 kazak participants aged from 19 years to 98 years (mean  $\pm$  SD, 46.7  $\pm$  12; 654 men and 956 women) in Xinjiang Yili. The National Cholesterol Education Program (NCEP) criteria for MS were used in the study. Carotid intima-media thickness (IMT) was measured by echocardiography. According to NCEP criteria, populations were divided into MS group and non-MS group.

**Results** The prevalence rate of MS by the NCEP criteria Was 40.1% (44.8% in men and 36.9% in women). IMT was significantly higher in MS group than non-MS group ( $p<0.05$ ).