Methods 18 healthy male hybrid dogs aged 15–18 months were divided into three groups randomly, the control group (n=6), the Perindopril group (1 mg/kg/d, n=6), the Spironolactone group (10 mg/kg/d, n=6). To test the form and function of left atrial and plasma aldosterone levels before pacing and 4 weeks, 8 weeks after pacing, respectively. Observe the number of dogs maintained AF and duration of AF after cessation of pacing. Then, kill the animals and collect some tissues of left and right atrial to detect aldosterone levels and test the situation of atrial fibrosis by pathological examination. By comparing the similarities and differences between the three groups, to understand the impact of atrial interstitial remodelling and the occurrence and development of atrial fibrillation induced by aldosterone inhibitor.

Results The levels of plasma aldosterone were no significant differences between the three groups before pacing (p>0.05), while 4 weeks and 8 weeks after pacing the plasma aldosterone levels and the aldosterone levels of atrial tissue 8 weeks after pacing of the other groups were significantly lower than those of the control group (p<0.05). In the control group, 4 weeks and 8 weeks after pacing the plasma aldosterone levels was significantly higher than that before pacing (p<0.05), while in the other two groups, there were no significant differences between before and after pacing (p>0.05). Pacing for 4 weeks and 8 weeks later, the diameter, end-systolic volume and end-diastolic volume of the left atrium of the control group dogs significantly increased than before pacing, and left atrial ejection fraction (LAEF) lower than before pacing significantly (p<0.05). Compared with the control group, those of the Perindopril group and Spironolactone group after pacing significantly reduced, but LAEF significantly increased (p<0.05). Compared with the control group, the number of dogs maintained atrial fibrillation of the two treatment groups after cessation of pacing significantly reduced, with a shorter average duration of atrial fibrillation. While there was not significant difference between the two treatment groups. The value of Collagen Volume Fraction (CVF) of the Control group was significantly higher than those of the other two groups (p<0.05), while no significant difference value between the two treatment groups (p>0.05).

Conclusion The aldosterone receptor antagonist (spironolactone) and ACEI (Perindopril) can inhibit aldosterone levels and atrial fibrosis, improve the changes of atrial structure and function, and reduce the incidence and duration of atrial fibrillation. And the effects of the two drugs are similar.
the liposome control group RNA interference group proliferation is weak (p<0.05).

**Conclusion** 1. HIF-1a, SDF-1a and VEGF gene expression can be affected by HIF-1a siRNA in MSCs. 2. Hypoxia can make HIF-1 a, SDF-1 a and VEGF gene expression increased. 3. SDF-1 a and VEGF gene expression may be controlled by HIF-1 a in MSC. 4. Cell culture medium stimulate SMC prolifaction can be reduced by RNA interference.

**e0099**

**BAICALIN PROTECTION RAT CARDIOMYOCYTES FROM ISCHAEMIA-REPERFUSION INJURY AND ANTIARRHYTHMIA VIA INHIBITING L-TYPE CALCIUM CURRENT**

doi:10.1136/hrt.2010.208967.99

Teng Wang, Jingjing Wang, Wenyun Gan, Congxin Huang. Department of Cardiology, Renmin Hospital of Wuhan University, Cardiovascular Research Institute of Wuhan University, Wuhan, Chine

**Objective** To investigate baicalin protection rat cardiomyocytes from ischemia-reperfusion injury and antiarrhythmia via blocking ICa-L.

**Methods** The degree of ischemia-reperfusion injury was assessed by the recovery of LVDP and the magnitude of the reperfusion contracture with using approach of the Langendorff-perfused isolated rat hearts. The effects of baicalin on APs and ouabain-induced DAD and AT were performed on rat papillary muscles by conventional microelectrode technique. ICa-L was recorded via using whole-cell patch-clamp technique in enzymatically dissociated single rat ventricular myocytes.

**Results** Compared with the pre-ischaemic control, baicalin could concentration-dependently improved recovery of LVDP, and reduced the level of reperfusion contracture, and occurrence of arrhythmias. Baicalin significantly shortened ADP0.2, ADP0.5 and ADP1.0 in rat papillary muscles. Ouabain could apparently induced the DAD and TA in rat papillary muscles. With administration of baicalin, the electrophysiological parameters of ouabain-induced DAD and TA were markedly inclined to difficult occurrence. It illustrated that baicalin might inhibit influx of ICa-L. Baicalin significantly inhibited ICa-L in a voltage-dependent and concentration-dependent procedure, with an IC50 value of 27.7±1.9 μmol/l (Emax and nH were 115.2±3.3% and 1.07±0.05, respectively). Moreover, baicalin shifted the 1-V curve of ICa-L upwards. According to statistic kinetic data, it was suggested that baicalin especially inhibit the ICa-L by eliciting a negative shift of the steady-state inactivation without affecting the slope factor. To the effect of baicalin on the speed of ICa-L recovery from inactivation, our data indicated that the time courses of recovery were prolonged markedly (p<0.01 compare with control group, respectively).

**Conclusions** Baicalin improved cardioprotection effects on ischemia-reperfusion injury and decreased the occurrence of ouabain-induced DAD and TA, thus inhibited ICa-L. The effects of baicalin on inhibiting ICa-L might contribute to baicalin antagonising ischemia-reperfusion injury and arrhythmia.

**e0101**

**INTERLEUKIN-17A GENE VARIANTS AND RISK OF CORONARY ARTERY DISEASE: A LARGE ANGIOGRAPHY-BASED STUDY**

doi:10.1136/hrt.2010.208967.101

Xiaolin Zhang, Fang Pei, Yaling Han, Chenhui Yan, Mingfang Huang, Tao Wang. Shenyang Northern Hospital

**Objective** Recent studies have also revealed that interleukin (IL)-17A plays a key role in atherosclerosis and its complication, but the relationship of its common variants with coronary artery disease (CAD) has not been extensively studied.

**Methods** We systematically screened sequence variations in the IL17A gene and designed an angiography-based case-controlled study consisting of 1031 CAD patients and 935 control subjects to investigate the association between the selected polymorphisms of IL-17A gene and CAD risk in Chinese Han population.

**Results** Frequencies of IL17A rs8193037 GG homozygote and G allele were significantly higher in the patient group than those in the control group (p<0.001; OR = 0.68; 95% CI 0.54 to 0.85). Stratification analysis showed that the IL17A rs8193037 G allele significantly increased the risk of CAD only among male subjects (p=0.001; OR = 0.63; 95% CI 0.47 to 0.83). After adjustment for conventional risk factors, binary logistic regression analysis showed that the the G allele carriers (GG +AG) had significantly increased CAD risk compared with the AA homozygotes (adjusted p<0.001; OR = 0.68; 95% CI 0.54 to 0.85). ELISA showed augmented IL17A production in serum of the AMI patients.

**Conclusions** Based on our data, we speculated that rs8193037 of IL17A is associated with CAD risk in Chinese Han population and G allele of rs8193037 may be an independent predictive factor for CAD.

**e0102**

**EXPRESSION OR SECRETION OF IL-34 AND IL-35 IN THE PERIPHERAL BLOOD MONONUCLEAR CELLS FROM PATIENTS WITH DILATED CARDIOMYOPATHY**

doi:10.1136/hrt.2010.208967.102

Huang Sisi, Wu Weifeng, Lin Song, Huang Yanlan. The First Affiliated Hospital of Guangxi Medical University

**Objective** The aim of this study was to observe the level of interleukin (IL)-34 and IL-35 in peripheral blood mononuclear cells (PBMCs) with dilated cardiomyopathy (DCM), and explore the role of IL-34 and IL-35 in human DCM.

**Methods** 80 patients with DCM and 30 normal adults as control were studied. IL-34 and the subunit Epstein-Barr virus-induced gene 3 (EBI3) of IL-35 mRNA expression in PBMCs were detected by reverse transcription–PCR (RT-PCR). IL-34 and IL-35 protein level in plasma were measured by ELISA.

**Results** (1) Results showed that the IL-34 mRNA level or its protein level was significantly elevated in DCM patients compared with

**e0100**

**ASSOCIATION BETWEEN CREG GENE POLYMORPHISMS AND CORONARY ARTERY DISEASE IN THE HAN POPULATION OF NORTH CHINA**

doi:10.1136/hrt.2010.208967.100

Tao Wang, Xiaolin Zhang, Yaling Han, Chenhui Yan, Mingfang Huang. Shenyang Northern Hospital

**Introduction** The purpose of the present study was to assess the possible association between CREG and CAD in the Han population of North China.

**Methods** All five selected SNPs were genotyped in 1161 patients with angiographically documented CAD and 960 control subjects free from CAD who had normal coronary angiograms. Patients and controls were unrelated individuals of Han Chinese from the northeast region of China, genotype analyses were performed additive, dominant and recessive models. Binary logistic regression was used to control for the presence of vascular risk factors both in genotype and haplotype analyses.

**Results** Genotype frequencies of the five examined polymorphisms were similarly distributed between CAD group and controls (p>0.05). Further haplotype analysis also found no significant differences in the distributions between CAD group and controls (p>0.05).

**Conclusion** This study did not show a statistically significant association between common variants of CREG and CAD in northern Chinese Han population.