

histological structure of the specimens, and the concordance of κ was calculated. Furthermore, the effect of plaque's component on the rupture was evaluated with logistic models.

Results 63% (7 of 11) in rabbits in as group had thrombosis after plaques' disruption was triggered. In contrast, vessels in C group were smooth without plaque or thrombus. Sensitivity of MRI for detecting thrombosis' numbers was 71.4%, and specificity was 100%. The correlation of thrombosis' position ($r=0.91$, $p<0.001$) and length ($r=0.88$, $p=0.001$) were detected by MRI and by histopathology were statistically significant. The correlation of area of lipid core ($r=0.9$, $p<0.001$) and area of plaque ($r=0.85$, $p<0.001$) detected by MRI and by histopathology were both statistically significant. The comparison of components with t test showed that thickness of fibrous cap ($p=0.005$), area of lipid core ($p=0.001$) and area of lipid core/area of plaque ($p<0.001$) were significantly different between rupture group and non-rupture group. In addition, for unvaried ordinal regression analysis, the percentage of lipid core area in plaque area was independently associated with the rupture of plaques (OR: 1.277, 95% CI 1.025 to 1.591; $p=0.03$).

Conclusion MRI can be used to detect atherosclerotic thrombosis, and may be become a useful tool to identify vulnerable plaques.

e0085 RELATIONSHIP BETWEEN THE POLYMORPHISM OF APOLOPROTEIN APO B GENE XBAI ECORI AND THE SERUM LIPIDS IN THE LI NATIONALITY OF HAINA

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Zhen Yao, Yunbo Zhang, Ying Li, Ruilian Ma, Shenhong Gu, Jianghua Zhong. *The People's Hospital of Sanya*

Objective To study the apolipoprotein (apo) B gene XbaI and EcoRI polymorphism of the Li nationality in Hainan Island and to evaluate their effects on serum apolipoproteins and lipids.

Methods The study was carried out in a natural population of 351 (151 samples from the Li nationality and 200 samples from the Han nationality) individuals aged between 20 and 84 from Li nationality in Hainan area. The XbaI and EcoRI polymorphisms of apolipoprotein (apo) B gene were analysed using PCR and Restriction Fragment Length Polymorphism (RFLP) methods. The levels of serum apoA, apoB, total cholesterol (TC), triglyceride (TG), HDL cholesterol (HDL-C) were also measured, and LDL cholesterol (LDL-C) was calculated.

Results The frequency of the Li nationality's X^+/X^- genotype subgroups was 0.119. The frequency of the Li nationality's X^+ allele was 0.059, which was higher than the Han nationality control group ($p<0.05$). The frequency of the Li nationality's E^-/E^- genotype subgroups was 0.086. The frequency of the Li nationality's E^- allele was 0.043, which was no difference compared to the Han nationality ($p<0.05$). The levels of TC, LDL-C in the Han nationality were higher than those in the Li nationality, but the levels of HDL-C in the Li nationality were higher than those in the Han nationality. There was no difference about the levels of apoB, apoA and TG between the two groups. The levels of LDL-C in the Li nationality's X^+/X^- genotype subgroups were higher than the same group of X^-/X^- genotype subgroups ($p<0.05$), but levels of HDL-C were lower than the X^-/X^- genotype subgroups ($p<0.05$). Also there were no difference in the levels of TG, TC, LDL-C, HDL-C, apoB and apoA in the Li nationality between the E^-/E^- genotype subgroups and the E^+/E^- genotype subgroups ($p<0.05$).

Conclusions The XbaI genotypes and alleles' frequency distribution between Li nationality and Han nationality have significant differences but the EcoRI genotypes and alleles' frequency distribution between Li nationality and Han nationality have no statistical significance ($p>0.05$). Different genotypes of EcoRI and XbaI have different effects on serum apolipoproteins and lipids. The levels of LDL-C of the genotype subgroups which contains X^+ allele was

higher than the genotype subgroups which does not contain the X^+ allele. The X^+ allele can affect lipid levels, but the E^- allele can not affect lipid levels.

e0086 SINOARTIC DENERVATION DISRUPTED THE CIRCADIAN RHYTHM OF THE OSCILLATION OF MOLECULAR CLOCK AND ACTIVITY OF RAS IN CARDIOVASCULAR

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Yu Baorui, Yu Minglian, Shi Ying, Sun Ningling. *He Nan Provincial People's Hospital*

Objective To observe the profile of blood pressure in sinoaortic denervated (SAD) rats and investigate the expression of clock genes *per2*, *BMAL1*, clock output gene *DBP*, *AT1* and *PCNA* in heart and thoracic aortic of SD and SAD rats, therefore to probe into the influences of the impairment of arterial baroreflex (ABR) on molecular clock and the activity of RAS in peripheral cardiovascular and their interaction.

Methods 72 male Sprague-Dawley rats underwent SAD or sham operation at the age of 12 weeks. 24-h BP and BPV were measured in conscious and unrestrained rats 4 weeks after operation. Rats were housed in a 12 h light/12 h dark cycle (LD12:12) for at least 10 days. Heart and thoracic aorta were taken every 4 h throughout the day to investigate mRNA expression of clock genes (*per2*, *BMAL1*), clock output gene *DBP*, *AT1* receptors and *PCNA* by RT-real time PCR and examine the abundance of *Per2* protein in heart and vessel tissue by Western Blotting respectively.

Results Compared with sham-operated rats, SBPV and DBPV over 24 h of SAD rats were enlarged ($p<0.01$). Clock genes (*Per2* and *BMAL1*), clock output gene *DBP*, *AT1* receptors and *PCNA* oscillated synchronously both in heart and vascular of SAD and sham-operated rats under light-dark cycle. After sinoaortic denervation, the total mRNA abundance of *Per2* decreased significantly both in heart and aorta ($p<0.05$ or $p<0.01$). *BMAL1*, *DBP*, *AT1* and *PCNA* in heart were up-regulated significantly ($p<0.05$ or $p<0.01$), while that of these genes in aortic remained unchanged. More importantly, after operation, the circadian rhythm of mRNA expression of all the above genes both in heart and aortic changed significantly, showing an abnormal expression level of these genes by a rough normal diurnal and nocturnal pattern in heart, or by diurnal oscillation patterns in aorta. Consistent with *Per2* mRNA expression, its protein abundance in heart and aortic decreased simultaneously, and the circadian rhythm was also disturbed. Moreover, all the amplitude of the mentioned genes were significantly weakened or enlarged in SAD rats.

Conclusions The impairment of arterial baroreflex leads to the abnormality in the circadian rhythm of the molecular clocks and the RAS activity was mediated by *AT1* in peripheral cardiovascular. The abnormality of the total RAS activity, circadian rhythm of RAS activity in peripheral tissues, disorders of molecular clock as well as the abnormality of RAS activity may all contribute to the upset of molecular clock in peripheral cardiovascular following sinoaortic denervation. Therefore these abnormalities promote dysfunction of BP regulation and proliferation and remodelling of cardiovascular in SAD rats.

e0087 APPLICATION OF SERUM PROTEIN FINGERPRINT IN DIAGNOSIS OF CORONARY ARTERY DISEASE

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Wang Yaping, Hu Xinyang, Wang Jian-An, Xiang Meixiang. *Second Affiliated Hospital of Zhejiang University College of Medicine*

Objective Coronary artery disease (CAD) has emerged as the dominant etiologic factor in patients with heart failure. The