histological structure of the specimens, and the concordance of \( \kappa \) 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 (\( r=0.85, p<0.001 \)) 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.

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

Yu Baorui, Yu Menglian, 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, SBP and DBP 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**

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