the patients fasting periphery venous flood acquired on the second morning, fasting plasma glucose (FPG), triglyeride (TG), low density lipoprotein-cholesterol (LDL-C), high density lipoprotein-cholesterol (HDL-C), creatinine (Cre) are tested by auto-biochemistry instrument, enzyme linked immunosorbent assay adopted. 3. Two-dimensional and Doppler echocardiography was performed using a Vivid 7 Dimension echo machine. Left ventricle end-diastolic diameter (LVEDD) and left atrial (LA) dimensions were standard M-mode measurements. Left ventricle ejection fraction (LVEF) was calculated using the modified Simpson's rule. 4. After centrifugation, 0.5 ml clear supernatant liquid of fasting periphery venous flood deserved in −80°C less than 5 months. APN concentration was measured by radio-immunity method. 5. Record each general state, including BMI, medicine taking, whether with or without hypertension, coronary heart disease and so on. All data are expressed as mean±SD. All analyses were performed using SPSS 17.0.

Results Adiponectin concentration in persistent AF was significantly higher than in control group and paroxymal group. Covariance analysis revealed that plasma adiponectin was also significantly associated with the presence of arterial fibrillation ($p<0.05$). Univariance analysis TG has influence on APN. Multiple linear regression show APN correlated negatively with TG, and APN in persistent AF group is higher than paroxymal AF group and controls.

Conclusion High plasma adiponectin levels are associated with the presence of persistent and permanent AF. Adiponectin concentration was correlated negatively with TG.

e0677 INCREASED PLASMA NTERMINAL PROBTYPE NATRIURETIC PEPTIDE IN PATIENTS WITH HEPATITIS C VIRUS INFECTION

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[1,2]Wenliang Che, [3]Wenling Liu, [1]Yidong Wei, [1]Yawei Xu, [4]Yisen Chen, [4]Yunli Huang, [3]Lei Li, [5]Jie Xiao, [6]Akira Matsumori, [2,3]Dayi Hu. *[1]Shanghai Tenth People's Hospital, Tongji University, Shanghai, China; [2]Heart, Lung and Blood Vessel Center, Tongji University, Shanghai, China; [3]Heart Center, Peking University People's Hospital, Beijing, China; [4]Beijing YouAn Hospital, Capital Medical University, Beijing, China; [5]Department of Cardiovascular Medicine, Beijing Tongren Hospital, Beijing, China; [6]Department of Cardiovascular Medicine, Kyoto University Graduate School of Medicine, Kyoto, Japan*

Objectives Some studies suggested a possible role for hepatitis C virus (HCV) in the pathogenesis of cardiovascular diseases (CVD). N-terminal pro-brain natriuretic pepetide (NT-proBNP) has been proposed to be a neurohumoral marker of cardiovascular risk. Few prior studies have evaluated such levels in HCV infection. Accordingly, the objectives of the present study were to investigate circulating levels of NT-proBNP and their relevance in patients with HCV infection.

Methods We collected 131 HCV-infected patients and 131 age and gender matched healthy individuals from January 2006 to October 2007 in China. Demographics, clinical data were collected and circulating NT-proBNP was analysed, and 63 of patients were also consecutively evaluated with echocardiography.

Results The level of serum NT-proBNP was higher in HCV-infected patients compared with controls (76.62 fmol/ml vs 51.83 fmol/ml, $p<0.001$, geometric means), even in HCV-infected patients without cardiovascular abnormalities (CVD history and /or abnormalities of ECG) NT-proBNP also increased (63.46 fmol/ml vs 48.14 fmol/ml, $p=0.015$, geometric means). A NT-proBNP level in the highest tertile was associated with a higher risk of cardiovascular abnormalities, with OR of 17.91 (95% CI, 3.71 to 86.47). MVE/MVA, LVEF and FS were significantly lower among patients in the highest NT-proBNP tertile, whereas MVA was higher. In addition, compared with normal values of healthy Chinese population (39.35%±4.26%), the value of FS (36.76%±5.50%, $p=0.015$) was lower in patients whose serum NT-proBNP level was higher than median of controls (>56.17 fmol/ml, n=37).

Conclusions HCV infected individuals had higher NT-proBNP levels than age matched controls, which show a possible cardiac functional evidence for a pathogenic link between HCV and CVD. The finding is consistent with an increased incidence of HCV or HCV antibody described in some CVD patients.

e0678 PROTEIN AND MRNA EXPRESSION OF CX40 IN CRISTA TERMINALIS OF PATIENTS SUFFERED FROM RHEUMATIC HEART DISEASE WITH CHRONIC ATRIAL FIBRILLATION

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Zhao Feng, Zhou Yong, Li Li, Yao Jun-Di, Jiang Yi-Feng, Xu Zhi-Yun. *Department of Cardiology, The 411th Hospital of PLA, Shanghai, China*

Objective To investigate the protein expression and mRNA expression of Cx40 in crista terminalis of patients suffered from rheumatic heart disease with chronic atrial fibrillation. And evaluate the function of the remodelling of Cx40 in development and maintenance of atrial fibrillation in rheumatic heart disease.

Methods A small piece of myocardial specimen was acquired from crista terminalis during the operation in 20 patients who need operation therapy for rheumatic mitral valve disease and six patients undergoing other cardiac surgery served as control group. Western blot was used to detect expression of Cx40. Cx40 mRNA expression was detected by real-time fluorescence quantitative PCR method.

Results Compared with sinus rhythm, Cx40 expression was decreased in chronic atrial fibrillation. But, the difference of Cx40 mRNA expression among the three groups had no statistical significance.

Conclusion The remodelling of Cx40 plays an important role in the development and maintenance of atrial fibrillation in rheumatic heart disease. And the mechanism of the remodelling of Cx40 remains in the level after transcription of Cx40 gene.

e0679 DEVELOPMENT OF A RAPID QUANTITATIVE DETECTION OF NT-PROBNP BASED ON SUPERPARAMAGNETIC NANOPARTICLES AS LABELS IN THE LATERAL FLOW IMMUNOASSAY

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[1]Wang Yanyan, [2]Wei Meng, [2]Li Jingbo, [2]Zhu Wei, [2]Xu Quanfu, [1]Gu Shuiming. *[1]Shanghai Xuhui Central Hospital; [2]Shanghai 6th Peoples Hospital Shanghai Jiaotong University School Of Medicine*

Objective To establish a lateral flow immunoassay (LFIA) system for rapid, economic and quantitative detection of N terminal pro brain natriuretic peptide (NT-proBNP).

Method In this study, superparamagnetic nanoparticles (MNPs) were used as labels, the immuno-nanoparticles were prepared by coupling monoclone antibody specific to NT-proBNP onto MNPs, then the immunonanoparticles were used to prepare the conjugate pad of the magnetic LFIA of NT-proBNP. Another monoclone antibody specific to NT-proBNP (capture antibody) and secondary antispecies antibodies were immobilised at test line and control line, respectively. Then the magnetic LFIA for detection of NT-proBNP were established and applied to test standard samples of different NT-proBNP concentrations. The magnetic field produced by MNPs in the test line are measured by a high sensitive magnetic assay reader. From the linear relation between magnetic signal intensities and NT-proBNP concentrations, we can achieve quantitative detection of NT-proBNP. Some factors which may influence the detection sensitivity of this system were also studied, such as the amount of antibody immobilised in the Test line and the amount of antibody per MNP.