for 16 weeks. After cardiac function measurements were performed, rats were sacrificed and their hearts were harvested for further histologic and molecular biologic analysis. Cardiac tissue was analyzed by ELISA for the protein content of the cytokines TNF-alpha, IL-18, IL-6 and IL-1beta. NLRP3 inflammasome was analyzed by western blot.

RESULTS Administration of apocynin did not affect plasma glucose and insulin levels or body weights in STZ-induced diabetic rats. Compared with controls, diabetic rats showed sever metabolic disorder, cardiac dysfunction, and excessive activation of NLRP3, apoptosis-associated speck-like protein containing a caspase recruitment domain (ASC), pro-caspase-1, activated caspase-1 and mature interleukin-1β (IL-1β). Apocynin ameliorated the overexpression of NLRP3 inflammasome.

CONCLUSIONS These findings indicate that the protective mechanisms of Apocynin on diabetic cardiomyopathy are involved in the alleviation of NLRP3 inflammasome. This work was supported by the Health and Family Planning Commission of Hubei Province (WZ2015Z122).

GW26-e2495 Tranilast Inhibit Ox-LDL Induced Inflammatory Response in Human Mast Cells Via TLR4 Pathway
Zhe Meng, Chao Yan, Miao Yuan, Yishan Zhang, Dengfeng Gao Second affiliated hospital of Xi’an Jiaotong University

OBJECTIVES Mast cells (MCs) may promote plaque vulnerability, via expressing various pro-inflammatory cytokines. Tranilast, a synthetic MCs membrane stabilizer, has been reported to suppress the inflammation in fibroblasts. Whether tranilast can inhibit ox-LDL-induced inflammation in MCs need to be clarified.

METHODS Human mast cells (HMC-1) were pretreated with or without different concentration of tranilast (30, 100, 300 μmol/L) for 1 h, and then incubated with 100 μmol/L ox-LDL for another 6 or 24 h. The real-time PCR and ELISA were used to detect the mRNA and protein expression of MCP-1, TNF-α and IL-6. NO production was measured by Griess assay. Protein expression of TLR4 was measured by real-time PCR and western-blot, respectively. The phosphorylations of MAPKs (ERK1/2, p38 MAPK, JNK1/2) were measured by western-blot.

RESULTS Tranilast significantly attenuated ox-LDL-induced overexpression of MCP-1, TNF-α, IL-6 and NO in HMC-1 cells, in a concentration-dependent manner (P<0.05). Moreover, tranilast remarkably dose-dependently inhibited ox-LDL-induced overexpression of TLR4 and iNOS expression (P<0.05). Combination of TLR4 antagonist A23187 and tranilast synergistically strengthened the inhibitory effect, suggesting that the inhibitory effect of tranilast is possibly dependent on down-regulating the expression of TLR4 in HMC-1 cells. We also found that tranilast inhibited ox-LDL-induced phosphorylation of MAPK (ERK1/2, p38 MAPK, JNK1/2), with a concentration-dependent manner (P<0.05). Pretreatment with ERK1/2 inhibitor PD98059, p38 MAPK inhibitor SB203580, or JNK1/2 inhibitor SP600125 partially attenuated ox-LDL-induced overexpression of pro-inflammatory factors in HMC-1 cells. In combination with tranilast, their inhibitory effect was synergistically strengthened.

CONCLUSIONS Tranilast could attenuate ox-LDL induced inflammatory response in HMC-1 cells via TLR4, ERK1/2, JNK1/2 and p38 MAPK pathway.

GW26-e2928 No Distinct Association Between COMT Val158Met Polymorphism and Blood Pressure and Serum Lipid Levels in the Oldest Olds From Guangxi Bama Area
Zhangya Bian, Yi Ding, Lin Ge, Shangling Pan, Peng Sun, Junhua Peng, Bama Area Blood Pressure and Serum Lipid Levels in the Oldest Olds From Guangxi

OBJECTIVES To see the possible relationship between COMT Val158Met polymorphism and blood pressure (BP) and serum lipid levels and its putative role in human longevity in the long-lived families inhabiting along Hongshuihe River Basin in Guangxi Province.

METHODS Genotyping of COMT Val158Met was conducted using PCR-RFLP for members from Bama long-lived families (BL, n = 1538), Bama non-long-lived families (BNL, n = 600), Pingguo (a county outside Bama region) long-lived families (PL, n = 538) and Pingguo non-long-lived families (PNL, n = 493) after anthropometric measures were collected and serum lipid levels were detected. Correlation analyses were then performed between genotypes and these variables.

RESULTS The distribution of genotypes and alleles among four families was significantly different (all P < 0.01), with GA/GA genotype and minor allele A presenting more frequently in Bama population than Pingguo Population (P < 0.01). The SBP, PP, TC, TG and LDL-C levels of GG genotype carriers were dramatically higher than non-GG carriers in BNL (P < 0.05); the SBP and PP levels of GG carriers were lower (P < 0.05) while TC, LDL-C level were higher (P < 0.01) than that of non-GG carriers in PL; no difference in blood pressure and lipids were observed between genotypes in BL and PNL (P > 0.05). Correlation analyses revealed that COMT Val158Met was positively correlated with PP in BL, negatively with SBP and DBP in BNL; TC level was negatively related to COMT polymorphism in BL, BNL and PNL, and LDL-C level was negatively associated with COMT polymorphism in total and Pingguo population and in BNL and PL.

CONCLUSIONS Although COMT 158Met presented more frequently in Bama long-lived individuals, but it play limited role in BP and lipid modulation. The association between COMT Val158Met polymorphism and other phenotypes (e.g. cognition) thus warrant further investigation.

GW26-e3532 Effects of Renal Denervation on Left Atrial Fibrosis in Rats With Isoproterenol Induced Chronic Heart Failure
Qian Liu, Qijun Shan
Department of Cardiology, First Affiliated Hospital of Nanjing Medical University

OBJECTIVES To investigate effects of the renal denervation on left atrial fibrosis in rats with chronic heart failure.

METHODS 60 healthy male Sprague Dawley rats were randomly assigned to control group (n=10) and isoproterenol induced chronic heart failure (IPICHF) group (n=50). After 5 weeks, the 31 IPICHF survivor rats were randomly divided into renal denervation (RDN) group (n=15) and sham group (n=16). Three group rats were sacrificed at 10 weeks. LVEF (left ventricular ejection fraction), IVSd (diastolic interventricular septal thickness) and LAD (left atrium dimension) were measured by echocardiogram at baseline, 5 and 10 weeks. After sacrificed, fibrosis expression of left atrial tissue was detected by Masson staining, the expression of AngII,TGF-β1,MMP2 and collagen were determined by Western-blot.

RESULTS Compared with control group, LVEF decreased (55.37±2.54 VS 75.95±2.61%, P<0.01), IVSd (1.96±0.05 VS 1.58±0.07mm, P<0.01) and LAD (5.18±0.41 VS 4.22±0.16mm, P<0.01)increased significantly in IPICHF group at 5 weeks. Compared with sham group at 10 weeks, cardiac function significantly improved (LVEF 57.95±4.33 VS 60.31±4.35%, P<0.05), ventricular septa thickness not significantly decreased (IVSd 1.68±0.07 VS 1.56±0.08mm, P<0.05) and left atrium size reduced (LAD 4.91±0.69 VS 5.65±0.41mm) in RDN group. The Masson staining (CVF, collagen volume fraction) showed the fibrosis of left atrial tissue significantly decreased in RDN group than sham group (P<0.01). The western blots test demonstrated the expression of AngII, TGF-β1, MMP2 and collagen significantly down-regulated in RDN group but not in sham group (all P<0.05).

CONCLUSIONS RDN can effectively attenuate the left atrial fibrosis in IPICHF rats. Our study demonstrated that RDN decreased left atrium size and tissue CVF. The attenuation of left atrium fibrosis by RDN may be attributed to cardiac function improvement and pro-fibrogenic factors (AngII, TGF-β1, MMP2 and Collagen1) expression down-regulation in rats with CHF.

GW26-e3549 The Protective Effect of Aqueous Extracts of Tribulus Terrestris on Oxidized LDL-Induced Endothelial Injury
Yue-Hua Jiang, Wang Zhen, Xian-Qing Meng, Chuan-hua Yang
Department of Cardiology, First Affiliated Hospital of Shandong University of Traditional Chinese Medicine

OBJECTIVES To observe the efficacy of aqueous extracts of Tribulus terrestris (TTR) on endothelial injury in obesity-related hypertensive rats and to investigate the protective effects of TT (30 ug/ml and