

[gw22-e0042]

ADIPONECTIN IS A USEFUL BIOMARKER DURING TRANSITION FROM HYPERTENSION TO ONSET OF HEART DYSFUNCTION

Zhou Jingmin¹, Fuming Jiang¹, Sunaijun¹, Jin Xuejuan¹, Zhong Chunlin¹, Wang Shijun¹, Michael Fu², Zouyunzeng¹, Ge Jun-Bo¹ ¹*The Hospital of Integrated Traditional Chinese and Western Medicine of Huangpu District, Shanghai, China;* ²*Department of Medicine, Sahlgrenska University Hospital, Göteborg, Sweden*

10.1136/heartjnl-2011-300867.30

Aims To examine whether adiponectin is associated with disease progression of heart failure.

Methods Spontaneously hypertensive rats (SHR, n=35), aged one month, were used and followed up to 18 months. High

frequency echocardiography was performed both at baseline and every three months thereafter. Serum levels of NT-proBNP and IL-6 as well as serum and tissue expression of adiponectin were measured in the same time as echocardiography.

Results Our results clearly demonstrated time-dependent progression of hypertension and heart dysfunction as evidenced by the gradual increase of left ventricular mass index, NT-proBNP, IL-6 and gradual decrease of the diastolic function by echocardiography. However, serum adiponectin decreased from three months when onset of diastolic dysfunction occurs and was kept at low level throughout the study period and is inversely related with NT-proBNP, IL-6 and E/E' (correlation coefficient was -0.756 for NT-proBNP, $p < 0.001$, -0.635 for IL-6, $p = 0.002$, and -0.626 for E/E', $p = 0.002$, respectively) while positively correlated with E/A and E'/A' (correlation coefficient was 0.683 for E/A, $p = 0.001$, 0.671 for E'/A', $p = 0.001$, respectively). Adiponectin expression first decreased at 3 month and then increased at 18 month.

Conclusions Adiponectin may be a useful biomarker during transition from hypertension to onset heart dysfunction.