[gw22-e0706]

THE RELATIONSHIP BETWEEN BRACHIAL-ANKLE PULSE WAVE VELOCITY AND DIASTOLIC FUNCTION IN ESSENTIAL HYPERTENSIVE PATIENTS WITH LEFT VENTRICULAR HYPERTROPHY

Chen Gailing, Wang Yong, Jiang Hong, Wang Yun *Department of Cardiology, China-Japan Friendship Hospital, Beijing, China*

10.1136/heartjnl-2011-300867.586

Objective To evaluate the relationship between brachial-ankle pulse wave velocity (baPWV) and left ventricular function in essential hypertensive patients with left ventricular hypertrophy.

Methods A total of 54 hypertensive patients with left ventricular hypertrophy were divided into two groups: E/Ea $\geq$ 15 group and E/Ea<15 group. Auto-survey atherosclerosis apparatus was applied to examine baPWV and ankle-brachial index (ABI). Central aortic waveforms were generated using pulse wave analysis. End-diastolic left ventricular diameter (LVIDd), interventricular septum thickness (IVSd), end-diastolic posterior wall thickness (LVPWd), left ventricular ejection fraction (LVEF), left ventricular mass index (LVMI) and E, A, Ea were measured by echocardiography.

Results baPWV were significantly higher in the E/Ea $\geq$ 15 group compared to the E/Ea <15 group (1844.26 ± 347.90 vs 1616.23 ± 295.08 , $p < 0.05$). There were no significant differences in LVEF ABI between the two groups. Correlation analysis revealed that baPWV was significantly and independently associated with E/Ea ($r = 0.289$, $p < 0.05$).

Conclusions Elevated baPWV is significantly associated with diastolic function in essential hypertensive patients with left ventricular hypertrophy.