hypertension, even though cannot improve its left ventricular remodelling.

[gw22-e0857] **THE EFFECT OF BISOPROLOL ON HEART RATE TURBULENCE, LEFT VENTRICULAR MASS INDEX AND RELATIVE WALL THICKNESS IN PATIENTS WITH ESSENTIAL HYPERTENSION**

He Ximin, Zhong Jianghua *Department of Cardiovascular, The Affiliated Hospital of Hainan Medical College, Hainan, China*

10.1136/heartjnl-2011-300867.591

Objective To study the change of heart rate turbulence (HRT), left ventricular mass (LVMI), relative wall thickness (RWT) by the treatment of bisoprolol on patients with essential hypertension.

Methods Eighty two patients with essential hypertension were randomly divided into control subgroup with the basis treatment and bisoprolol subgroup both with the treatment of bisoprolol and the basis treatment. The control group was 78 patients with no essential hypertension. The ventricular premature beat were captured by 24 h dynamic electrocardiography, LVMI and RWT were captured by ultrasonic cardiogram before treatment and after 4 weeks treatment. Then turbulence onset (TO) and turbulence slope (TS) of the each groups were calculated respectively.

Results TO was higher and TS was lower in patients with essential hypertension than in control group. Linear correlation analysis showed RWT was no relationship with TO and TS; LVMI showed positive correlation with TO and negative correlation with TS. After 4 weeks treatment TO were significantly decreased and TS were significantly increased both in basis treatment subgroup and bisoprolol subgroup in all patients with essential hypertension. Covariance analysis display that the changes of TO ($F=8.68$, $p<0.05$) and TS ($F=11.32$, $p<0.05$) in bisolol subgroup was significantly higher than in the basis treatment subgroup, but LVMI and RWT was no significantly changes in all patients.

Conclusion HRT was relation to LVMI but not RWT in patients with essential hypertension. Short-term treatment of bisoprolol can improve HRT in patients with essential