Objective To overestimate the effect of irbesartan on circadian rhythm (CR) pulse pressure PP of blood pressure and left ventricular hypertrophy (LVH) in gerontal hypertensive patients and to observe the relation between CR, PP and LVH. 

Methods Essential hypertensive patients aged 60 years or older (n=92) underwent ambulatory blood pressure monitoring (ABPM) and ultrasonic cardiography (UCG). The CR changes of blood pressure and the left ventricular construction including the thickness of in terventricular septum and posterior were assessed. The patients with missed CR (n=52) were randomly given Telmisartan 80 mg or indapamide (n=24) 2.5–5 mg once a day. After 12 weeks of treatment the parents underwent ABPM and UCG again. CR and the parameters of the left ventricle after treatment were compared with those before treatment. All data were given as mean±SD. The comparisons between >2 groups were made using multivariable ANOVA of independent groups to determine the overall difference, and SNK test was used to determine statistical significance between groups, probability varies<0.05 were considered statistically significant. Linear regression analysis was used to test for the correlation between the TNF-a protein production and LREDd.
Abstracts

Results CR was missing in about 76.9% of the patients with LVH. However almost 70 per cent of patients presented with CR in those without LVH. Twenty-two patients (73.3%) in temisantan groups had no significant change in the measurement of left ventricular compared with those before treatment (p<0.05) and the controls (p<0.01). Left ventricular hypertrophy, there was no statistical meaning in dropping blood pressure before and after treatment during 24 h in two groups SBP and DBP at daytime in two groups had statistical meaning (p<0.05). The dropping of SBP and DBP in the group A were more obviously than that in the group B and has statistical meaning (p<0.01).

Conclusion The missed CR of blood pressure may be associated with the occurrence of LVH in gerontal hypertensive patients. Temisartan treatment can effectively recover CCR and delay or even depress the development of LVH.