

collected and did statistic analyses on the clinical data of this family.

Results All the members with mitochondrial DNA point mutation A4263G were maternal members, a finding consistent with the maternal inherited characteristics. The morbidity of hypertension in the maternal members is up to 53.8%, while that in the nonmaternal members is only 11.8% ($p < 0.01$, see table 2); the onset age of hypertension is tend to be advanced (from 64.3 ± 5.0 y to 23.3 ± 2.9 y, see table 3); the levels of blood glucose, total cholesterol and sodium of maternal members were different with those of nonmaternal members ($p < 0.05$, see fig. 2), while the results of echocardiogram has no difference between two groups. Finally, the blood pressure of maternal members was relevant with age, smoking, height and high salt diet.

Conclusions By far all findings, including the same mitochondrial DNA point mutation in all maternal individuals and clear pattern of maternal inheritance, suggested mitochondrial DNA point mutation may be associated with hypertension and play an important role in onset of hypertension.

[gw22-e0669]

A STUDY ON MATERNALLY INHERITED HYPERTENSION AND MITOCHONDRIAL DNA POINT MUTATION A4263G IN A LARGE CHINESE FAMILY

Liu Yuqi, Wang Shiwen, Li Zongbin, Qiao Xue, Li Yang, Gao Lei, Zhao Yusheng, Li Yanhua, Liu Mohan, Guan Minxin *Institute Of Geriatric Cardiology Of Pla General Hospital, Beijing, China*

10.1136/heartjnl-2011-300867.227

Objective To find a novel mitochondrial DNA point mutation A4263G, we characterised clinically and evaluated hereditarily a large Chinese family with the characteristics of maternally inherited hypertension.

Methods The mitochondrial DNA point mutation A4263G was detected by sequence analysis of mitochondrial DNA from enrolled patients with essential hypertension. Then we