which mean systolic pressure in IDH group is higher than which in groups of SDH and ISH (P<0.01). BMI, waist-to-hip ratio (WHR) and mean serum urea acid in every subtype are all higher than which in control group (P<0.01). Mean fasting blood sugar (FBG) in groups of IDH and ISH are all higher than which in control group (P<0.01), no statistical signification of FBG between IDH group and control group (P>0.05).

Mean of TC, TG, LDL-C and VLDL-C in every subtype are all higher than which in control group (P<0.01), mean of TG and VLDL-C in IDH group are all higher than which in groups of SDH and ISH (P<0.01).

Conclusions: The morbidity of the new diagnosed hypertension is 17.4% percent in our city, in which male is higher than female, chief IDH of male and SDH of female. Mean FBG of IDH is lower than which in groups of SDH and ISH, and do not higher than control group. It is its characteristic of the mean of TG and VLDL-C are all higher than which in groups of SDH and ISH. To treat different subtypes of hypertension, we should use only the same antihypertensive agents, but take varieties into account, we should take studies, proper dietary structure and sport-related physical fitness. And blood glucose, lipid and weight should be control to prevent cardiovascular disease.

GW25-e4480
The risk factors analysis and follow-up study of prehypertensive diabetic patients
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Objectives: To analyze the prevalence and risk factors of prehypertension among normal blood pressure diabetic patients. To assess the renal function of prehypertensive diabetic patients. To compare the cumulative incidence of hypertension between prehypertension and normal blood pressure groups after 5 years followed up and analyze risk factors of it in prehypertensive diabetic patients.

Methods: A combination methods of retrospective and prospective analysis was applied to carried out the study. 3481 type 2 diabetes with normal blood pressure were selected as the research object and devided into the normal blood pressure and pre-hypertension group according to he level of blood pressure. To analyze the prevalence, risk factors and renal damage of prehypertensive diabetic patients. These patients were followed up for five years and the cumulative incidence of hypertension were analyze. Risk factors for hypertension in prehypertensive diabetic patients were evaluated. Excel software was applied for databases and SPSS13.0 software was applied for statistical analysis.

Results: Among 3481 normal blood pressure patients with diabetes, 943 patients (27.1%) belong to the normal blood pressure group and 2538 patients (72.9%) belong to prehypertension group (2.36±3.27) vs. (2.56±3.23) mmol/L, and 626 cases (18.5%) were female. The range of their aged was from 22 to 91 years old and their average age was (57.4±10.6) years old. Results of single factor analysis showed that prevalence of prehypertension in male and female patients was 74.2% (2117/2855) vs 67.5% (421/626), in smoking and not smoking patients was 74.4% (1772/2320) vs 70% (961/1373), in the smoking and nonsmoking patients was 74.4% (1772/2320) vs 69.9% (811/1 161). Their difference were significant. The TG level of normal blood pressure group and prehypertension group was 1.87±1.1 vs 2.71±1.94 mmol/L. LDL-C level of two groups were 2.64±1.10 mmol/L. The body mass index (BMI) of two groups were 24.2±3.27 vs. (25.53±3.23) kg/m2. Their age at onset were (46.79±7.757, 7.313, P<0.001). Results of multia variate logistic regression analysis showed that factors including male, smoking, smoking, high levels of TG, LDL-C and BMI were associated with prehypertension. The prevalence of renal insufficiency in the prehypertension group with essential hypertension and normal blood pressure diabetic patients was 38.3% vs 33.5% and the difference was significant (X2=6.761, P<0.05). The 5-year cumulative incidence of hypertension in prehypertensive normal blood pressure diabetic patients was 35.8% (885/2471) vs 22.0% (198/899) and the difference was significant (P<0.05).The cumulative incidence of hypertension in male and female prehypertensive diabetic patients was 36.7% vs 31.5% and that in overweight and not overweight prehypertensive diabetic patients was 39.4% vs 31.3%. Their difference were significant (P<0.05).

Conclusions: Male, smoking, smoking, high levels of TG, LDL-C and BMI were risk factors of prehypertensive diabetic patients. Prehypertension was a risk factor of renal insufficiency for diabetic patients. The 5-year cumulative incidence of hypertension in the prehypertensive diabetic patients was higher than that in normal blood pressure diabetic patients. Male and overweight were risk factors of 5-years cumulative incidence of hypertension diabetic patients.

GW25-e4490
Percutaneous transluminal angioplasty of renal artery fibromuscular dysplasia
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Objectives: To evaluate clinical characteristics, the effect of percutaneous transluminal renal artery angioplasty (PTRA) and clinical follow-up from patients of renovascular hypertension results from renal artery fibromuscular dysplasia (FMD).

Methods: Between January 2009 and December 2013, 22 consecutive renal artery FMD patients (age 25±5yrs) underwent PTRA for poorly controlled hypertension. Mean follow-up period ranged from 15 (from 163.2 to 122.1±5mmHg, P<0.001) and from 101.1±5 mmHg (P<0.001). While the serum creatine levels remained unchanged (75.25 vs 74.2±1.16 mmol/L, P=0.69), a significant increase in 99mTc-GFR levels of lesion kidney was observed in 8 patients after PTRA (25.2±4.8 vs 39.4±8.2ml/min; P=0.001).

Conclusions: PTRA for clinically symptomatic renal FMD is technically and clinically successful and safe to perform.

GW25-e2317
Association study between NPPB gene polymorphisms and essential hypertension in Hainan Li-risk population
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Objectives: The aim was to investigate the association between NPPB gene and essential hypertension in Hainan Li-risk population.

Methods: Allele-specific PCR and direct sequencing in 107 cases of patients with essential hypertension of Li Nationality and 102 cases of healthy of Li Nationality, and RS198388 RS7353581 for NPPB gene polymorphisms were genotyped. Measurement data T test or analysis of variance test data, count data analyses simili- are correlation test, differences comparison of chi-square test to determine the relevance of the relationship between genotype NPPB gene RS7353581 and RS198388 with essential hypertension between genetic susceptibility, and gene genotyping performed Hardy-Weinberg equilibrium goodness of fit test.

Results: (1) hypertension group mean arterial pressure (MAP), creatinine (Cr) is higher than the normal control group, the difference was statistically significant (P<0.05), found no statistically significant difference in clinical indicators. (2) NN hypertension group NPPB gene RS7353581 polymorphic loci, NM, MM genotype frequency distributions were 89.7 %, 7.5 %, 2.8 % in the control group, NN, MM genotype frequency distributions were 98.0 %, 1.0 %, 1.0 %, and the distribution of the differences were statistically significant (P<0.05). (3) The genotype distribution in the experimental group and the control group were in line with polymorphic loci Hardy-Weinberg equilibrium (P>0.05), the sample is representative. (4) 8 cases of hypertensive patients RS7353581 heterozygous polymorphic loci, and found four bases upstream mutation C→CC, resulting in a large number of peaks after heterozygous mutations, frame shift mutations.

Conclusions: (1) NPPB gene polymorphisms with RS7353581 risk of Hainan of Li Nationality essential hypertension correlated (P<0.05). (2) NPPB gene RS7353588 polymorphism with sensitivity of Hainan of Li Nationality risk no correlation (P>0.05). (3) Genotypes RS7353581 and RS198388 NPPB gene poly- morphism loci were the Hardy-Weinberg equilibrium (P<0.05). (4) 8 cases of hypertensive patients RS7353581 heterozygous polymorphic loci, and found muta- tions upstream of the insertion of a new mutation.

GW25-e1103
Clinical risk factors and early onset of maternally inherited essential hypertension
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Objectives: This study aimed to investigate the age at onset of maternally inherited essential hypertension (MIEH) and relative risk factors for MIEH.

Methods: Two hypertensive pedigrees [pedigree A (n=104) and pedigree B (n=19)] and sporadic hypertensive patients (n=154) with the characteristics of MIEH were recruited. Their demographic and clinical features were collected. The age at the onset of hypertension, as well as the hypertension related environmental and clinical risk factors were compared among the MIEH (n=36), non-MIEH (n=118) patients and normotensive controls (n=36).

Results: The age at the onset of hypertension in MIEH pedigree patients was decreased by generation [for pedigree A: 62.0±6.2 years old in generation I (n=4), 63.6±5.8 in generation III (n=6), 23.3±3.2 in generation IV (n=4); for pedigree B: 58.0 in generation I (n=1), 48.3±3.7 in generation II (n=3), 37.5±0.7 in generation III (n=2)]. Among sporadic hypertensive patients, the average age at the onset of hypertension was 73.8±6.19 years, which showed a significant difference compared with non-MIEH (47.8±10.3 vs. 58.2±11.4 years old, P<0.01). Significant difference could also be found between sporadic MIEH patients and normotensive controls for the hyper- tension related environmental and clinical risk factors, including body mass index.