

OBJECTIVES To investigate the relationship between apolipoprotein (apo) A and the extent of coronary artery lesions in Chinese type 2 diabetics with coronary heart disease.

METHODS Totally 184 type 2 diabetic patients diagnosed with coronary heart disease by coronary angiography were enrolled. The level of apoA was measured by ELISA. Gensini score was used to assess the severity of coronary artery lesions by coronary angiography results. Association between Gensini score, branches of coronary artery lesions, diffuse lesions, complete occlusive lesions and apoA were evaluated by Spearman's rank correlation analysis. All statistical tests were operated with the program SPSS 13.0 and $P < 0.05$ was considered as statistical significance.

RESULTS With the increase of apoA, Gensini score decreased significantly ($r = -0.151$, $P = 0.043$). There were no statistical significances between branches of coronary artery lesions ($r = -0.1$, $P = 0.182$), diffuse lesions ($r = 0.045$, $P = 0.569$), complete occlusive lesions ($r = -0.102$, $P = 0.173$) and apoA.

CONCLUSIONS Among Chinese type 2 diabetics with coronary heart disease, apoA is significantly correlated with the extent of coronary artery lesions.

GW27-e1253

Associations between Common Genetic Variants of the ABCA1 Gene and Coronary Heart Disease in the Chinese Han Population

Qi Liping,^{1,3} Yan Xiaowei,^{1,2} Dang Aimin^{1,2}

¹eking Union Medical College Hospital; ²Fu-Wai Hospital; ³The General Hospital of People's Liberation Army (301 hospital)

OBJECTIVES The promoter -565C/T variant and the R219K variant in exon 7 of the ATP binding cassette transporter A1 (ABCA1) were found to be associated with the risk of coronary heart disease (CHD) in western populations. Our study was designed to illustrate the association of these two SNPs with CHD in the Chinese Han people.

METHODS A cohort of 519 patients with documented CHD and 541 normal controls were genotyped by the highly sensitive ligase detection reaction.

RESULTS The frequencies of the TT genotype at the -565C/T locus revealed no difference between CHD patients and controls. In the subgroup analysis, the frequency of the AA genotype of R219K in CHD patients with type 2 diabetes mellitus (DM) was lower than in the controls.

CONCLUSIONS Our results suggested that the AA genotype at the R219K locus protect against CHD in patients with type 2 DM in the Chinese Han population.

GW27-e1260

The DNAH11 rs12670798 single nucleotide polymorphism is associated with the risk of coronary artery disease and ischemic stroke

Rui-Xing Yin, Shao-Wen Shen, Jia-Qi Sun

Department of Cardiology, Institute of Cardiovascular Diseases, the First Affiliated Hospital, Guangxi Medical University, Nanning 530021, China

OBJECTIVES Cardiovascular and cerebrovascular diseases have become the first cause of death in the world. Both coronary artery disease (CAD) and ischemic stroke (IS) may share some common pathophysiological basis and risk factors. Previous studies have showed that the rs12670798 single nucleotide polymorphism (SNP) in the DNAH11 gene (DNAH11) is associated with serum lipid levels in the general populations. The present study was undertaken to detect the associations between the DNAH11 rs12670798 SNP and the risk of CAD and IS in the Guangxi Han population.

METHODS This study recruited 1,108 unrelated patients (CAD, 568 and IS, 540) and 540 healthy controls from the First Affiliated Hospital, Guangxi Medical University. The diagnosis of CAD was based on typical clinical symptoms, electrocardiographic changes, increased serum markers including creatinine kinase-MB and troponin T, and coronary angiographic findings (coronary stenosis $\geq 50\%$ in at least either one of the three main coronary arteries or their major branches such as diameter ≥ 2 mm). The classification of IS was made according to the TOAST (Trial of Org 10172 in Acute Stroke Treatment) criteria. Genotypes of the rs12670798 SNP were determined by the Snapshot technology platform.

RESULTS Serum total cholesterol (TC) levels in healthy controls were different among the three genotypes of rs12670798 SNP ($P < 0.05$), the

rs12670798C allele carriers had higher TC than the C allele non-carriers; respectively. The rs12670798C allele carriers were associated with an increased risk of CAD (rs12670798CT genotype: OR = 1.345, 95%CI = 0.975-1.855, $P = 0.071$; CC genotype: OR = 1.590, 95%CI = 1.109-2.278, $P = 0.012$). The rs12670798C allele carriers were also associated with an increased risk of IS (CT genotype: OR = 1.597, 95%CI = 1.153-2.213, $P = 0.05$; CC genotype: OR = 1.722, 95%CI = 1.192-2.488, $P = 0.04$). After adjustment for age, gender, body mass index (BMI), smoking, drinking and hypertension, the rs12670798 SNP was still associated with an increased risk of CAD and IS in different genetic models ($P < 0.05$). Stratified analysis showed that the SNP may interact with the gender, age, BMI, smoking, drinking and hypertension to affect (increase or decrease) the risks of CAD and IS.

CONCLUSIONS DNAH11 rs12670798 SNP is associated with elevated serum TC levels, and increased risk of CAD and IS in the Guangxi Han population. The rs12670798C allele carriers have higher serum TC levels and higher risk of CAD than the rs12670798TT homozygotes. DNAH11 rs12670798 SNP is also associated with the susceptibility of IS, the rs12670798CC homozygote is associated with an increased risk of IS. There may be an interaction between the rs12670798 SNP and gender, age, BMI, smoking, drinking and hypertension to influence the risk of CAD and IS.

ACUTE CORONARY SYNDROME

GW27-e0046

Effects of sex and age on prehospital system delay in patients with ST-segment elevation myocardial infarction

He Xiaonan, Shaoping Nie

Emergency critical care center, Beijing An Zhen Hospital affiliated to Capital Medical University

OBJECTIVES To investigate the effects sex and age on prehospital delay time (PHDT) in patients with ST-segment elevation myocardial infarction.

METHODS Between January 2014 and December 2014, 465 consecutive patients with ST-segment elevation myocardial infarction who were referred to Beijing Anzhen Hospital were analyzed. According to prehospital system delay the patients were categorized into 5 groups (<1h group; <2h group; <4h group; <6h group and <12h group). Linear regression models were used to examine median PHDT and individual PHDT over time. Fisher test and chi-square test were applied to analyze data for different sex and the same different respectively.

RESULTS Of 380 patients with ST-segment elevation myocardial infarction, 125 received EMS and were analyzed. A minority of 27.2% of patients reached hospital within 1 h of patients with ST-segment elevation myocardial infarction. PHDT of female was longer than that of male (322 (72-887 quartiles) min vs. 245 (6-3155) min; $p < 0.002$). PHDT of younger male (25-54years) was 240 (6-2730) min and mounted to 303 (72-848) min in the oldest female subgroup (65-74 years).

CONCLUSIONS Older female sex was associated with longer PHDT. Room for improvement especially in older women was evidenced.

GW27-e0058

Comparisons of loading doses of ticagrelor versus clopidogrel in preventing periprocedural myocardial infarction

Ling-Xia Xu, Kang-Yin Chen, Tong Liu, Xin-Tian Zheng, Jing-Jin Che, Guangping Li

Cardiology Department, The Second Hospital of Tianjin Medical University

OBJECTIVES Periprocedural myocardial infarction (PMI) is a common complication following percutaneous coronary intervention (PCI). The present study was aimed to evaluate the safety and efficacy of loading dose of ticagrelor versus clopidogrel in preventing PMI in patients with acute coronary syndrome (ACS) undergoing selective PCI.

METHODS The present study enrolled a total of 114 patients with ACS who underwent selective PCI from Jun 2014 to November 2015 in Cardiology Department of the Second Hospital of Tianjin Medical University. All patients were randomly assigned to clopidogrel group ($n=57$, the loading and maintenance doses were 300mg and 75mg Qd for clopidogrel, and 300mg and 100mg Qd for aspirin), or ticagrelor group ($n=57$, the loading and maintenance doses were 180mg and 90mg Bid for ticagrelor, and 300mg and 100mg Qd for aspirin). In the