GWICC Abstracts 2010

PREDICTION OF THE NEWLY-IDENTIFIED CAROTID PLAQUE WITH BLOOD LIPID LEVELS IN CHINESE ELDERLY POPULATION

Wang Wei, Huo Yang, Zhao Dong, Liu Jing, Sun Jiayi, Wang Miao, Wu Yangfeng. Department of Epidemiology, Capital Medical University Affiliated Anzhen Hospital, Institute of Beijing Heart, Lung and Blood Vessel Diseases, Beijing China

Objective To provide the changing prevalence of carotid plaque in a Chinese elderly population from 2002 to 2007 and accordingly evaluate the predictive effect of baseline lipid levels of interest on the newly-identified carotid plaque.

Methods All study subjects were recruited from two cohorts, viz. the People’s Republic of China/United States of America Collaborative Study (USA-PRC Study) and the Chinese Multi-provincial Cohort Study (CMCS). The baseline examination was taken in 2002 including CVD risk factors and B-mode ultrasound of carotid artery and the second examination was carried out in 2007. The carotid plaque was measured in a total of 2000 subjects aged 47–79 years (mean 63 year).

Results 1. During these 5 years, the prevalence of carotid plaque incidence reached 41.8% for men and 34.1% for women. 2. With the increased from 30.3% to 62.2% and from 21.5% to 51.5% for men and women, respectively. The newly-identified carotid plaque incidence reached 41.8% for men and 34.1% for women. 2. With the increased from 30.3% to 62.2% and from 21.5% to 51.5% for men and women, respectively. The newly-identified carotid plaque incidence reached 41.8% for men and 34.1% for women. 3. Cross-sectional analysis showed that lipoprotein cholesterol (non-HDL-C), triglycerides (TG), as well as between TG and HDL-C, on high-density lipoprotein cholesterol (HDL-C) and total cholesterol (TC) levels, the artery plaque incidence significantly increased in both sexes (p<0.05). 3. Cross-sectional analysis of LDL-C, TG and HDL-C for carotid plaque incidence indicated the existence of joint effects between LDL-C and HDL-C, LDL and TG, as well as between TG and HDL-C, on the elevated carotid plaque. For example, at the normal levels of LDL-C and HDL-C, the plaque incidence was 23.3%, whereas the abnormal levels of these two lipids yielded an exceedingly high incidence of 49.0%. 4. In multifactorial analysis, higher LDL-C, non-HDL-C and TC/HDL-C ratio were recognised as an independent factors of carotid plaque incidence (RR=1.44, 95% CI 1.07 to 1.94; RR=1.45, 95% CI 1.08 to 1.96; RR=1.59, 95% CI 1.14 to 2.23 in men; RR=1.47, 95% CI 1.13 to 1.92; RR=1.35, 95% CI 1.04 to 1.75; RR=1.64, 95% CI 1.20 to 2.25 in women). Conclusion The prevalence of carotid plaque increased rapidly in a Chinese elderly population. Elevated LDL-C, non-HDL-C and TC/HDL-C levels serve as predictor of carotid plaque incidence.

SUBENDOCARDIAL VIABILITY RATIOS IN RESIDENTS OF A COMMUNITY IN JINAN CITY, SHANDONG PROVINCE

Liu Zhendong, Lu Fanghong, Zhao Yingxin, Wang Shujian, Yang Jianmin. Cardiovascular Control and Research Center, Institute of Basic Medicine, Shandong Academy of Medical Sciences

Objective The subendocardial viability ratio (SEVR) measures myocardial perfusion related to cardiac workload. The chief aim of this work was to investigate the relationship between SEVR and cardiovascular risk factors.

SUBENDOCARDIAL VIABILITY RATIOS IN RESIDENTS OF A COMMUNITY IN JINAN CITY, SHANDONG PROVINCE

Liu Zhendong, Lu Fanghong, Zhao Yingxin, Wang Shujian, Yang Jianmin. Cardiovascular Control and Research Center, Institute of Basic Medicine, Shandong Academy of Medical Sciences

Objective The subendocardial viability ratio (SEVR) measures myocardial perfusion related to cardiac workload. The chief aim of this work was to investigate the relationship between SEVR and cardiovascular risk factors.

SUBENDOCARDIAL VIABILITY RATIOS IN RESIDENTS OF A COMMUNITY IN JINAN CITY, SHANDONG PROVINCE

Liu Zhendong, Lu Fanghong, Zhao Yingxin, Wang Shujian, Yang Jianmin. Cardiovascular Control and Research Center, Institute of Basic Medicine, Shandong Academy of Medical Sciences

Objective The subendocardial viability ratio (SEVR) measures myocardial perfusion related to cardiac workload. The chief aim of this work was to investigate the relationship between SEVR and cardiovascular risk factors.

IMPACT FACTORS ON BRACHIAL ANKLE PULSE WAVE VELOCITY IN XINJIANG HAN AND UYGUR HOSPITALISED PATIENTS

Haishu Buaijaar, Ma Yitong, Maimaitiming Gulthaer, Tang Baopeng, Yuan Binbin, Daoming Geng, Weijian Hu, Weiguo Bao. Department of Cardiology, Nanjing Benq Hospital, The Affiliated Hospital, Nanjing Medical University, Heart Center, The First Hospital, Xinjiang Medical University, Urumqi People’s Republic of China

Objective To compare impact factors on Ankle Brachial Pulse Wave Velocity (baPWV) in Xinjiang Uygur and Han hospitalised patients and evaluate the clinical significance of baPWV.

Methods Using Colin-Noninvasive Atherosclerosis detector BP-203RFE II (VF-1000), baPWV was measured in 5000 Xinjiang Han and Uygur hospitalised patients from the first hospital of Xinjiang Medical University, including 2738 Han and 2262 Uygur. Patients were divided into baPWV<1400 cm/s (1573Han, 1327 Uygur) and baPWV>1400 cm/s groups (1165Han, 935Uygur). Multivariable logistic regression analyses were performed to identify factors associated with baPWV.

Results In both Han and Uygur, Patients with baPWV<1400 cm/s were older than those baPWV>1400 cm/s, and more frequently had diabetes, stroke and hypertension. No significant differences in gender between two groups. Multiple regression analysis showed that baPWV was significantly associated with pulse pressure, age and hypertension. HDL-C might be a protective factor for two ethnicites, Ca++ antagonist might be risk factor of baPWV for Uygur patients.

Conclusions In Xinjiang Uygur and Han hospitalised patients, higher baPWV was associated with generalised atherosclerosis. baPWV should be a routine measurement in hospitalised patients. Influenced factors were different in two nationalities, For Uygur patients, influencing of antihypertensives on baPWV should be under consideration.

THE TREND OF CARDIOVASCULAR DISEASE OF UYGUR POPULATION IN HOTAN XINJIANG CHINA. A SURVEY FROM 1996 TO 2005

Yakefu Kalibinuer, Haishu Buaijaar, He Bingxian, Yuan Binbin. Heart Center, The First Hospital of Xinjiang Medical University; Department of Cardiology, Nanjing Benq Hospital, The Affiliated Hospital of Nanjing Medical University

Objective In order to understand better the trend of changes in cardiovascular disease of Ughur population in hotan prefecture. A ten year study from 1996 to 2005.