Method We carried out the research by multi-steps random sampling through questionaries. 1312 records had been completed for analysis. Indicators as smoking, age, education, occupation and income, etc., were calculated.

Results The total smoking rate was 23.8%, 52.4% in male and 4.0% in female. The smoking rates of different education, occupation and income had statistical differences.

Conclusion The smoking rate of Shougang district was lower than that of Beijing and the whole country. The smoking rate in male was significantly higher than that in female. It is very important to develop the health education and the smoking control in some special people.

---

e0263 | **EPIDEMIOLOGICAL SURVEY OF HYPERTENSION IN GENERAL ADULT POPULATION OF DIFFERENT NATIONALITIES IN XINJIANG**

Huang Ying, Ma Yitong, Liu Fen, Yang Yining, Li Xiao-Mei, Sun Minghui, Yao Juan, An Yong, Yao Juan An Yong

Objective To estimate the prevalence and distribution of hypertension and to determine the status of hypertension awareness, treatment, and control in Xinjiang.

Methods The Cardiovascular Risk Survey in Xinjiang, A total of 14 618 adults, age ≥35 years in Xinjiang.

Results The standardisation prevalence is 42.25%. Prevalence rate of hypertension is 42.44% in Han, 35.2% in Uygur, 53.04% in Kazak respectively. Among hypertensive patients, only 45.5% were aware of their high blood pressure, 19.7% were taking antihypertensive medication, and 11.3% achieved blood pressure control (<140/90 mm Hg). These data are 46.7%, 29.6%, 6.1%; 48.5%, 18.3%, 14.2%; 41.5%, 14.5%, 4.6% as sequence in Han, Uygur and Kazak.

Conclusions Our results indicate that hypertension is highly prevalent in Xinjiang. The percentages of those with hypertension who are aware, treated, and controlled are relatively low.

---

e0264 | **INVESTIGATION ON BLOOD LIPIDS OF THE LI NATIONALITY IN HAINAN ISLAND**

Yunbo Zhang, Zhen Yao, Yong Zhang, Ying Li, Ruilian Ma, Shijiao Yan. *The People's Hospital of Sanya*

Objective To study the blood lipid level of the Li nationality in Hainan Island, and to compare it between Li nationality and other people. To analyse the effects of the way of life style and the Polymorphisms of blood lipid gene on the levels of blood lipids.

Methods The epidemiological study was carried out in a natural population 1000 (500 samples from the Li nationality and 500 samples from the Han nationality) individuals aged aged between 30 and 50 from Li Nationality in Hainan area by cluster and random sampling. To measure TC, TG, LDL-C, HDL-C according to "Suggestion on protocol of measuring serum lipdaemia and standardisation", the data were analysed by SPSS 13.0.

Results There were no differences about the levels of TC, TG, HDL-C and LDL-C between the Li nationality and the Han nationality, but there were significant difference about the levels of HDL-C between two population (p<0.05). The levels of HDL-C in the Li nationality was significantly higher than that in the Han nationality among female (p<0.05), and the levels of TG in the Han nationality was significantly higher than that in the Li nationality among male (p<0.05). The levels of HDL-C in the Li nationality was significantly higher than that in the Han nationality in the group of age 30—39 and the group of age 40—49 (p<0.05).

Conclusions There were statistical difference about the levels of the blood lipids between the Li and the Han nationality. The reason could be that the Li nationality living in the poor area who are under low living standard. The different Polymorphisms of blood lipid genes may be one of the causes.

---

e0265 | **ANALYSIS OF 24 H SLEEP DEPRIVATION ON ARRHYTHMIA AND HEART RATE VARIABILITY**

Wei-Ren Chen, Xiang-Min Shi. *Pla General Hospital*

Backgroud Sleep deprivation (SD) is a common phenomenon in emergency, especially during war time, conflict, natural disasters or disease crisis such as SARS, it can cause exhaustion in members of armed forces and non-combat casualty. In conditions of high-tech war, deprivation is becoming more serious and mandatory than ever before.

Objective To study the impact of 24-h sleep deprivation on arrhythmia and heart rate variability (HRV).

Methods Soldiers were used as research objects, they were divided into normal group and the sleep deprivation group. 1. Heart rate, atrial premature beat, ventricular premature beat and heart rate variability were observed by 24-h ambulatory ECG during sleep deprivation. 2. The changes of serum cortisol levels were detected during sleep deprivation.

Results 1. After 24 h sleep deprivation, HF, SDNN and RMSSD significantly reduced, LF significantly increased, LF /HF showed a significant increase. 2. Part of volunteers presented atrial premature beats and ventricular premature beats. 3. The level of serum cortisol significantly increased.

Conclusion The underlying mechanism of alteration of arrhythmia and HRV after 24-h sleep deprivation would be ascribed to lower vagal activity and elevated sympathetic activity.

---

e0266 | **SNORING IS ASSOCIATED WITH SUBCLINICAL CAROTID ATHEROSCLEROSIS IN 1050 URBAN CHINESE**

Li Yan, Zhao Dong, Liu Jing, Wang Wei. *Capital Medical University Affiliated Beijing Anzhen Hospital, Beijing Institute of Heart, Lung and Blood Vessel Diseases*

Context Epidemiological studies have identified snoring as a risk factor for atherosclerotic cardiovascular diseases. However, there is little evidence on snoring and subclinical atherosclerosis.

Objective To evaluate whether and to what extent snoring is associated with carotid atherosclerosis.

Methods Population-based study was conducted at a community in Beijing on 1050 subjects aged 50—79 years who had an ultrasound examination of the carotid artery at age ranging from 45 to 74 years in 2002 and a carotid ultrasonic reexamination in 2007, as well as a cross-sectional survey including snoring information and cardiovascular risk factors from September to November 2007.

Main Outcome Measures Carotid intima-media thickness (IMT) and plaque as two indexes of carotid atherosclerosis were diagnosed by B-mode ultrasonography. Association of snoring with increased IMT and plaque were analysed by multivariable logistic regression models adjusted for cardiovascular risk factors.

Results The prevalence of snoring was 64.3% in this population (71.4% in males and 58.4% in females). In multivariable models adjusted for traditional risk factors, snoring was significantly associated with increased IMT of common carotid artery (CCA) (OR, 1.38; 95% CI 1.04 to 1.82) and bifurcated carotid artery (BCA) (OR, 1.65; 95% CI 1.24 to 2.19), with having plaque of CCA (OR,

1.62; 95% CI 1.01 to 2.58) and BCA (OR, 2.39; 95% CI 1.79 to 3.18), with newly detected increased IMT of BCA (OR, 1.60; 95% CI 1.11 to 2.30), and with newly detected plaque of BCA (OR, 2.14; 95% CI 1.57 to 2.93).

Conclusions There were distinct associations between snoring and carotid atherosclerosis, which provides evidence for a relation between snoring and subclinical atherosclerosis.

---

e0267 **PREDICTION OF THE NEWLY-IDENTIFIED CAROTID PLAQUE WITH BLOOD LIPID LEVELS IN CHINESE ELDERLY POPULATION**

Wang Wei, Huo Yong, 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 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 increase of baseline total cholesterol (TC), low-density lipoprotein cholesterol (LDL-C), triglyceride (TG, except for men), non-high-density lipoprotein cholesterol (non-HDL-C), and total to high-density cholesterol ratio (TC/HDL-C) levels, the artery plaque incidence significantly increased in both sexes (p<0.05). 3. Cross-stratification analysis of LDL-C, TG and HDL-C for carotid plaque incidence indicated the existence of conjoint 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 was 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 2.23 in women).

Conclusions 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.

---

e0268 **SUBENDOCARDIAL VIABILITY RATIOS IN RESIDENTS OF A COMMUNITY IN JINAN CITY, SHANDONG PROVINCE**

Liu Zhendong, Lu Fanghong, Zhao Yingxin, Wang Shujian, Yang Jianmin. *Cardio-cerebrovascular 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.

Methods This study examined 1025 subjects, who underwent a health check-up with thorough medical examination between February and May 2008. Subjects were divided into six groups by age, and three groups by blood pressure. Plasma total cholesterol (TCH), high-density and low-density lipoprotein cholesterol (HDLC, LDLC), triglycerides (TG), fasting plasma glucose, and serum creatinine levels were measured enzymatically. Central aortic waveforms and pressures were calculated using a SphygmoCor pulse wave analysis (PWA) system.

Results The Buckberg SEVR gradually decreased as age increased, while the slopes of the aortic augmentation and aortic augmentation indices increased. The SEVR was 150.11±24.70% in a pre-hypertension group and 139.87±24.98% in a hypertension group, which was lower than the normal blood pressure group. Smoking, alcohol ingestion and deficiency in physical activity decreased SEVR. The SEVR was significantly associated with age, brachial systolic and diastolic blood pressure, brachial pulse pressure, aortic systolic blood pressure and pulse pressure, heart rate, aortic augmentation, aortic augmentation index at heart rate 75, total cholesterol, smoking and alcohol consumption.

Conclusion We found that SEVR decreased as age increased. SEVR was decreased in pre-hypertension compared to hypertension groups. Smoking, alcohol ingestion and deficiency in physical activity may be factors that affect SEVR.

---

e0269 **IMPACT FACTORS ON BRACHIAL ANKLE PULSE WAVE VELOCITY IN XINJIANG HAN AND UYGUR HOSPITALISED PATIENTS**

[1]Hasimu Buaijiaer, [2]Ma Yitong, [2]Maimaitiming Gulizhaer, [2]Tang Baopeng, [1]Yuan Binbin. *[1]Department of Cardiology, Nanjing Benq Hospital, The Affiliated Hospital, Nanjing Medical Hospital; [2]Heart Center, The First Hospital, Xinjiang Medical University, Urumqi*

Objectives 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-203RPE II (VP-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 protective factor for two ethnicities, 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.

---

e0270 **THE TREND OF CARDIOVASCULAR DISEASE OF UYGUR POPULATION IN HOTAN XINJIANG CHINA. A SURVEY FROM 1996 TO 2005**

[1]Yakefu Kalibinuer, [2]Hasimu Buaijiaer, [1]He Bingxian, [2]Yuan Binbin. *[1]Heart Center, The First Hospital of Xinjiang Medical University; [2]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 Uighur population in hotan prefecture. A ten year study from 1996 to 2005.