

CONCLUSIONS The prevalence of hypertension in Tibet is higher than average of China. More attention should be paid in diet, altitude of dwelling, resident place, and education in order to reduce the risk of hypertension in Tibet.

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The prevalence of risk factors and status of pre-hospital treatments among hospitalized patients with stroke in China

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OBJECTIVES To analyze the distribution of multiple risk factors for hospitalized patients with stroke and explore the status of prehospital treatment and control of the risk factors.

METHODS This study is a multi-center cross-sectional study; we continuously collected information of hospitalized patients with acute stroke from 41 hospitals located in 25 provinces of China during January to May in 2011.

RESULTS Totally 20570 patients meet the inclusion criteria were analyzed in this study. The average age of all recruited stroke patients was 63.0±12.9 years old, 13062 of them were male, 15329 were first-ever stroke patients, and 17052 were ischemic stroke. (1) There were 75.5% of patients with hypertension, 53.5% with elevated low density lipoprotein cholesterol, 37.3% with diabetes, and 6.5% with atrial fibrillation (AF). And 75.2% patients had two or more risk factors and 43.0% patients had three or more risk factors. (2) "Hypertension plus elevated LDL-C" and "hypertension plus diabetes mellitus" and "hypertension plus smoking" and "hypertension plus high LDL-C plus diabetes mellitus" were most common combinations of risk factors. (3) Among first-ever stroke patients, 53.3% was classified as high risk according their pre-hospital risk factor status and 25.9% was classified as low risk group; But 42.1% of the first-ever stroke patients lower than 65 years old came from the low stroke risk according their pre-hospital risk factor status and current definition of risk classification. (4) Among the first-ever stroke patients, the awareness rate of hypertension was 70.3%, but only 20.1% of those under treatment reached the target of BP control. The awareness rate of diabetes was 54.4%, and the awareness rate of elevated LDL was only 9.1%; There were relatively higher awareness rate of hypertension (83.0%) and diabetes (70.2%) among recurrent stroke patients, but the treatment rates (56.0% for hypertension and 46.3% for diabetes) and control rates (13.7% for hypertension and 21.4% for diabetes) of these risk factors were low. The awareness rate (16.1%), treatment rate (8.6%) and control rate (2.4%) of elevated LDL-C were the lowest compared with other risk factors.

CONCLUSIONS Most stroke patients had multiple risk factors of stroke in pre-hospitalization. And the pre-hospital treatment rates and control rates of these risk factors were very low for both first ever and recurrent stroke patients. Among stroke patients aged under 65, 42.1% of them was classified as low risk group according their pre-hospital risk factor status and current algorithm of stroke risk classification. The primary prevention and secondary prevention of stroke need to be improved in China. And the definition of risk classification for stroke may need modified for people under 65 years old.

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Cardiovascular Health Score and the Risk of Cardiovascular Diseases

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OBJECTIVES The American Heart Association (AHA) proposed a definition of ideal cardiovascular health behaviors and risk factors to estimate cardiovascular health status in 2010. Huffman created the AHA cardiovascular health score (CVH score) to estimate cardiovascular health status in individual-level. We performed a prospective cohort study among employees of the Kailuan Group Corporation who participated in the physical examination in 2006-2007, aimed to investigate the relationship between cardiovascular health score (CVH score) and the risk of cardiovascular diseases (CVDs).

METHODS 91698 individuals free of stroke and myocardial infarction at baseline were included in the final statistical analysis. We calculated baseline CVH score for all 7 metrics (poor, 0 points; intermediate, 1 point; ideal, 2 points; total scale: 0-14 points) and categorized them as three cardiovascular health groups: inadequate, average and

optimum. Cox proportional hazards model was used to analyze incidence of total CVD events, myocardial infarction, and stroke among three groups and per one higher point of CVH score.

RESULTS During an average of 6.81-year follow-up, there were 3276 CVD events, 2579 stroke and 747 myocardial infarction occurred. After adjusting for several confounding factors, each better health category of the CVH score was associated with reduced odds of 44% for total CVD events. Each point higher CVH score was associated with reduced odds of 17% for total CVD events. Similar trends were also detected in the risk of myocardial infarction and stroke separately.

CONCLUSIONS Higher CVH score is a protective factor of CVDs, myocardial infarction and stroke. Maintaining a better cardiovascular health behaviors and factors is essential to decrease the incidence of CVD.

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A Body Shape Index and Body Roundness Index: Two new body indices to identify left atrial enlargement among rural populations in northeast China

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OBJECTIVES Left atrial (LA) enlargement played an essential role in the occurrence of adverse cardiovascular outcomes. The body mass index (BMI), waist circumference (WC) and waist-to-height ratio (WHtR) were well-used anthropometric predictors for cardiovascular diseases (CVD), including LA enlargement, but their validities of discerning between fat and lean mass were questioned. Recently, two new anthropometric indices, A Body Shape Index (ABSI) and Body Roundness Index (BRI) have been developed as a possible improvement over BMI and WC. Our study assessed the predictive ability of ABSI and BRI in identifying LA enlargement and determined whether they were superior to BMI, WC and WHtR.

METHODS This cross-sectional study was conducted among the rural population in northeast China from January 2012 to August 2013, and finally included 3757 participants. ABSI, BMI, BRI and WHtR were calculated according to respective formula. According to left atrial volume index (LAVI), LA enlargement was classified as two categories: mild and severe.

RESULTS Linear Regression showed that BRI had the highest correlations ($r=0.136$, $p<0.001$) and ABSI had the lowest correlations ($r=0.060$, $p<0.001$) for LAVI compared to other anthropometric measure indices. The results of ROC curve and multiple regression analysis showed that BRI was the best predictor of mild LA enlargement (AUC: 0.638, 95%CI: 0.603-0.673; OR: 4.316, 95%CI: 2.672-6.972, $p<0.001$), and ABSI showed the lowest predictive power (AUC: 0.545, 95%CI: 0.508-0.583; OR: 1.904, 95%CI: 1.109-3.269, $p=0.02$). All of the anthropometric indices showed no predictive power for severe LA enlargement.

CONCLUSIONS We indicated that BRI was a superior measure compared to BMI, WC and WHtR to determine the presence of mild LA enlargement. ABSI showed the weakest predictive ability. All of the anthropometric indices did not have predictive ability for severe LA enlargement.

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Electrocardiographic Features in Patients with Hypertensive Left Ventricular Hypertrophy

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OBJECTIVES We have recognized that hypertensive left ventricular hypertrophy (HTN-LVH) is a major cause of acquired long QT syndrome (ALQTS) in patients with cardiovascular disease. This study aims to elucidate the electrocardiographic features in ALQTS associated with HTN-LVH.

METHODS Resting 12-lead ECGs of 144 HTN-LVH patients with ALQTS (QTc \geq 445 ms, age 68±13 years, 42% F) and 96 HTN-LVH patients with normal QT intervals (QTc \leq 444 ms, age 67±13 yrs, 36% F) were analyzed. All HTN subjects met the ECG LVH criteria defined by