Secondary Prevention of coronary heart disease: baseline status of patients in a CHD study

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Objectives: Despite the availability of various prevention guidelines on coronary heart disease, but secondary prevention practice is still sub-optimal. There were few reports on the status of Chinese CHD secondary prevention practice. The 11th-5 year National Key Technologies R&D Program for CHD is a study focus on early diagnosis and prevention and cure of CHD. We do a survey on the baseline status of secondary prevention of CHD. This survey sought to see how guideline-recommended treatments and target goals are adopted and attained in patients with CHD in China. Methods: The study was performed in 84 hospitals during 2007-2010 in China. In-patients or outpatients in department of cardiology who met any one of the following criteria were diagnosed as coronary heart disease and were invited to participate the study: definitely previous myocardial infarction, more than 50% narrowing of major coronary artery or main branch vessel diagnosed by coronary angiography or CTA, typical symptoms of exertional angina with typical ischemic ECG change or positive exercise test, symptoms of acute coronary syndrome with dynamic ECG change or Tnl elevation. All patients participating in the study were required to sign an informed consent. Patients basic demographic information, past medical history, lab results and medication information were collected. Life modification or treatment goals were defined as: blood pressure <140/90 mmHg, low-density lipoprotein cholesterol (LDL-C) <2.6mmol/L, Hba1c<7%, BMI<24kg/m², male waistline <89cm and female waistline <85cm.

Results: In total, 12219 patients participate in this study and 73.5% was male. Age was 61.5±10.6 years, height was 169.7±9.7cm, weight was 70.3±11.1kg. 55.0% had a history of smoking and among those 54.3% still continue smoking. 8.3% had family history of CAD, 66.3%, 60.3%, 26.0% and 10.7% of patients had past history of hypertension, hyperlipidemia, diabetes mellitus and cerebrovascular disease respectively. Anthrhomiotics, statins, B blockers and ACEI/ARB were used in 98.5%, 90.3%, 83.4% and 79.6% of patients. Treatment and life modification goals for cardiovascular risk factors were suboptimally attained: blood pressure in 72.6% of patients, LDL-C in 52.4% of patients, Hba1c in 72.6% of patients, BMI in 35.8% of patients, waistline in 47.5% and 43.6% of male and female patients respectively.

Conclusions: This survey showed relatively satisfactory usage rate of guideline-recommended medicines in Chinese clinical practice. But treatment and life modification goals attaining rates were unsatisfactory especially in body weight control. We should do more efforts to improve Chinese CHD secondary prevention status.

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High Prevalence of Pre-hypertension and Hypertension among Adolescents in China

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Objectives: To assess the prevalence of pre-hypertension and hypertension in Shanghai as well as to investigate the association between the overweight/obesity and adolescent hypertension.

Methods: A total of 4175 schoolchildren aged 11-17 years in four schools in Shanghai were assessed in May 2010. All students were visited at school by trained nurses or physicians who administered a questionnaire and carried out anthropometric measurements. Anthropometric measurements included height, weight, heart rate and blood pressure. Repeat measurements were obtained in students with elevated BP in one month. The pre-hypertension/hypertension was defined on the basis of the 2004 National High Blood Pressure Education Program Working Group definitions.

The overweight and obesity was defined using cutoff points recommended by Working Group of Obesity, China (WGOC).

Results: Participants were 15.0±1.9 (mean±SD) years old, with 52.3% (2183) being girls and 47.7% (1992) boys. Blood pressure distribution was 72.5% (76.3% for girls and 68.3% for boys) normal, 18.0% (14.2% for girls and 22.1% for boys) pre-hypertension, 8.3% Stage 1 hypertension (8.2% for girls and 8.3% for boys) and 1.3% Stage 2 hypertension (1.3% for girls and 1.3% for boys). A prevalence of overweight and obesity were 6.7% and 3.0% for girls; and 13.7% and 6.3% for boys. Multivariable logistic regression model was used to adjust for gender, age, parental history of hypertension and physical activities. The adjusted odds ratio (OR) and 95% confidence interval (95%CI) of prevalence elevated blood pressure associated with overweight and obesity were 1.42 (1.16-1.75) and 2.35 (1.78-3.11), respectively.

Conclusions: The prevalence of elevated blood pressure is common in adolescents in Shanghai, overweight and obesity is possibly associated with the elevated blood pressure.

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Prevalence of pulmonary artery hypertension in patients with chistosomiasis of China Dongting Lake area

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Objectives: To investigate the prevalence of pulmonary artery hypertension (PAH) in schistosomiasis patients around Dongting Lake area.

Methods: 18829 positive cases with schistosomiasis from two hospital of Yueyang City were consulted. PAH is defined by a pulmonary arterial systolic pressure (PASP) more than 40 mmHg, and transhoracic Doppler echocardiography is the main instrument to determine the pressure of PASP. All the other information such as demographic data, abdominal ultrasound scan, chest X-ray film, electrocardiography (ECG), hepatic function and so on were collected from the case history.

Results: 10 patients are presented with a PASP more than 40 mmHg, and the prevalence of PAH in patients with schistosomiasis around Dongting Lake area is 0.053%, which is much lower than before.

Conclusions: The prevalence of PAH in schistosomiasis patients around Dongting Lake area is 0.053%, which is much lower than before.