COMPARATIVE STUDY OF GLOBAL CVD RISK IN CHINESE HYPERTENSIVE PATIENTS WITH DIFFERENT SOCIO-ECONOMIC STATUS

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Objective To compare the global risk of cardiovascular disease (CVD) under the different socio-economic status (SES).

Methods This study is cross-sectional research; parts of ‘China National Survey for Determinants of Detection and Treatment Status of Hypertensive Patients with Multiple Cardiovascular Risk Factors, CONSIDER’. A total of 5206 hypertension patients from 46 hospitals across seven regions of China were recruited from June to December 2010. A cluster sampling of 100 to 200 consecutively hypertension patients who visited the outpatient department and met the entry criteria of this study was selected in each hospital. The information was collected by a questionnaire survey (the history of diseases, lifestyles, complications of hypertension and other cardiovascular risk factors), physical examination and also the laboratory tests for each of the patients. This study included 4985 patients who had complete data.

The global risk of CVD was calculated according to the criteria of Chinese Guidelines for Prevention and Management of Hypertension issued in 2005. And all of patients were assigned to four groups: low risk, medium risk, high risk and very high risk by the degree of risk.

On the basis of Weber’s definition of SES and the situation in our transformation period, we included education, occupation, annual income and types of medical insurance and created a SES score. Using principal component analysis, we divided the patients in accordance with the quartile of SES score (−0.70, −0.01, 0.78) into four groups: Lower, lower-middle, upper-middle and upper.

Results There were remarkable differences in the prevalences of other CVD risk factors among hypertension patients of different SES levels. The proportion of global risk of CVD, which is granted from lowest to highest, is 2.0%, 30.9%, 31.4%, 36.6% in the hypertensive patients with the lower SES; 2.2%, 27.7%, 35.6%, 34.5% in the hypertensive patients with the lower-middle SES; 2.6%, 32.5%, 35.1%, 29.8% in the hypertensive patients with the upper-middle SES; and 3.0%, 34.7%, 36.2%, 26.1% in the hypertensive patients with the upper SES. Ordinal logistic regression analysis showed that, SES was independently associated with the global risk of CVD. Compared with those in the patients with the upper SES, the global risk of CVD is increased 107% in the patients with the lower SES, after adjusted by other confounding factors.

Conclusions Hypertension out-patients with poor socio-economic status had more cardiovascular risk factors and higher global risk of CVD. It is suggested that appropriate policy support should be made for vulnerable patients. To improve their medical insurance reimbursement rate and reduce the gap of SES will help them to lower the global risk of CVD.