LIFESTYLE FACTORS AND GENDER-SPECIFIC RISK OF STROKE IN CHINESE ADULTS WITH HYPERTENSION: A NATIONAL CASE-CONTROL STUDY

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Limited studies investigated the relationship between lifestyle factors and risk of stroke in hypertensive people. Moreover, estrogen was shown to counteract the unfavourable effects of lifestyle factors on stroke in general people by several studies. Therefore, we conducted a case-control study to investigate the relationship between lifestyle factors and gender-specific risk of stroke in hypertensive people based on the China National Stroke Screening Survey. Stroke cases and types were defined by self-report and were confirmed by a neurologist using neuroimaging according to the criteria of the World Health Organization. Demographic data and information on risk factors were collected using structured questionnaires and physical examinations. Hypertensive participants who were diagnosed with ischemic stroke or haemorrhagic stroke were considered cases. The controls (1:1 frequency-matched for age and urban/rural ratio) were non-stroke subjects who were randomly selected from the hypertensive participants. A total of 7,631 ischemic stroke cases (7,769 controls) and 994 haemorrhagic stroke cases (1,015 controls) were included. Among smoking, overweight and physical inactivity, the lifestyle factor that showed the strongest association with the risk of ischemic stroke was physical inactivity (OR=1.42) in men and smoking (OR=1.46) in women. The strength of the association between physical inactivity and risk of haemorrhagic stroke was higher in men (OR=1.91) than in women (OR=1.55). In conclusion, the strength of the association between physical inactivity and both types of stroke was higher in men, but the association between smoking and risk of ischemic stroke was higher in women.