



Letter to the Editor

Patients with hypertension and/or diabetes and incident stroke: A risk assessment



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Dear Editor,

Sarfo et al. conducted a prospective study to evaluate the risk of hypertension and diabetes for incident stroke [1]. The authors recognized 54 events of stroke, and incidence rates (95% confidence intervals [CIs]) of stroke per 1000 person-years in patients with diabetes and hypertension, only hypertension and only diabetes were 16.64 (10.58–25.00), 13.77 (9.33–19.64) and 9.81 (3.59–21.74), respectively. In addition, adjusted hazard ratios (95% CI) of previous cigarette smoking and physical inactivity for incident stroke were 2.59 (1.18–5.67) and 1.81 (1.06–3.10). I have some concerns about this study.

First, L Ahangar et al. evaluated risk factors of ischemic and hemorrhagic stroke [2]. Among 230 patients, 84.3% was ischemic stroke. Percentage of hypertension (73%), diabetes mellitus (53%), cardiovascular disease (51%), and dyslipidemia (47%) were 73%, 53%, 51% and 47%, respectively. Hypertension, smoking, and opioid consumption were associated with hemorrhagic stroke, and dyslipidemia was significantly higher in ischemic stroke. Sarfo et al. recruited 3220 patients and 741 males were included. Sex difference and the type of stroke should be handled with caution for the risk assessment.

Second, Alloubani et al. conducted a review on the risk factors for stroke [3]. They concluded that hypertension and diabetes mellitus were important stroke risk factors, which were closely related to atherosclerosis. Unfortunately, they did not conduct a meta-analysis and risk factors of stroke in patients with hypertension and/or diabetes should be quantitatively specified by further study.

Finally, O'Donnell et al. conducted a case-control study to evaluate comprehensive risk factors for stroke, stratified into ischemic and hemorrhagic stroke [4]. Hypertension was a risk factor and regular physical activity was a preventive factor for any types of stroke. In contrast, diabetes was a risk factor for ischemic and a preventive factor for hemorrhagic stroke, presenting odds ratios (95% confidence intervals) of 1.33 (1.18–1.50) and 0.72 (0.60–0.87), respectively. Taken together,

risk assessment for stroke should be conducted by considering comorbidities and types of stroke, which would partly give information on the mechanism of the association.

Disclosure statement

The author has indicated no financial support.

Conflicts of interest

There is no conflict of interest in this study.

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Tomoyuki Kawada

Department of Hygiene and Public Health, Nippon Medical School, 1-1-5 Sendagi, Bunkyo-Ku, Tokyo 113-8602, Japan
E-mail address: kawada@nms.ac.jp.