Letter to the Editor

Stroke welcomes Letters to the Editor and will publish them, if suitable, as space permits. Letters must reference a Stroke published-ahead-of-print article or an article printed within the past 3 weeks. The maximum length is 750 words including no more than 5 references and 3 authors. Please submit letters typed double-spaced. Letters may be shortened or edited. Include a completed copyright transfer agreement form (available online at http://stroke.ahajournals.org and http://submit-stroke.ahajournals.org).


To the Editor:

In a recent study published in Stroke, Kokubo et al1 reported that consumption of green tea and coffee could significantly reduce the risk of stroke; compared with no tea drinking, participants drinking ≥4 cups/d had a 20% reduction in incidence of all strokes, and a similar reduction was found for those drinking coffee ≥2 cups/d compared with no coffee drinking. It would be interesting to see whether or not there are any significant differences in incidence of stroke between participants with drinking tea or coffee as a whole and those that are nondrinkers. The large data from the Japan Public Health Center (JPHC)–Based Study Cohort, with several dose exposure groups of tea and coffee drinkers, would lead to a high statistical significance in trend test, although the magnitude of the effect is small. It is not clear whether further analyzing dose groups beyond green tea drinking ≥4 cups/d or coffee ≥2 cups/d remains significant reductions in the risk of stroke.

Analysis of Kokubo et al did not adjust for socioeconomic status, an important predictor of illness outcomes. Low socioeconomic status is related to the risk of stroke.2 In Japan, there is a positive association of educational level with consumption of green tea and consumption of fruits and vegetables.3 In a previous publication, Kokubo et al4 also found a positive association of educational level with consumption of dietary soy intake, which reduced the risk of cerebral infarction. Thus, without adjustment for low socioeconomic status and other important confounders, the significant associations of higher green tea or coffee consumption with reduced risk of stroke may not be ensured.

Furthermore, the authors did not account for the effects of hypertension at baseline on incidence of stroke, except for adjustment for antihypertensive drug use only. During the time when the JPHC study recruited participants, controlling for blood pressure in the general population would have been poor, with many populations following the rule of halves.5 The table for baseline characteristic variables for the JPHC participants1 should include more detailed information on blood pressure and controls. There is substantial evidence that high blood pressure, if undetected or uncontrolled, is the most important cause of strokes. In their study of the effects of drinking tea and coffee on incidence of stroke, residuals of increased risk of stroke because of high blood pressure could not be excluded.

Although Kokubo et al suggested that higher consumption of green tea or coffee or their combinations was beneficial for reducing risks of all strokes, cerebral infarction, and intracerebral hemorrhage, further analysis, including adjustment for important confounders is needed to draw such conclusions.

Disclosures

None.

Ruoling Chen, MD, PhD
Department of Primary Care and Public Health Sciences
Division of Health and Social Care Research
King’s College London
London, United Kingdom

Ruoling Chen

*Stroke*. 2013;44:e90; originally published online June 27, 2013; doi: 10.1161/STROKEAHA.113.001601
*Stroke* is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 2013 American Heart Association, Inc. All rights reserved.
Print ISSN: 0039-2499. Online ISSN: 1524-4628

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://stroke.ahajournals.org/content/44/8/e90

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in *Stroke* can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the Permissions and Rights Question and Answer document.

Reprints: Information about reprints can be found online at:
http://www.lww.com/reprints

Subscriptions: Information about subscribing to *Stroke* is online at:
http://stroke.ahajournals.org//subscriptions/