Ischemic Stroke in Ethnic South Asians

To the Editor:

The article by Gunarathne et al on “Ischemic Stroke in South Asian” is timely in providing a review of the epidemiology of stroke in ethnic South Asians, the largest ethnic group in the world.

We would like to clarify the key findings of our article, “Ischemic Cerebrovascular Disease: Difference Between Ethnic South Asians and Ethnic Chinese Patients,” referenced by Gunarathne et al in the article. As described, we compared ethnic South Asian patients with ischemic cerebrovascular disease with ethnic Chinese counterparts in Singapore. Contrary to the statement in Table 1 and in the text of the article, we did not find that “South Asians had increased prevalence of hypertension, . . . and extracranial disease compared to Chinese patients with stroke.” The prevalence of hypertension was similar between ethnic South Asians (75%) and Chinese (77%; \( P = 0.479 \)). The difference in frequency of severe extracranial carotid disease between ethnic South Asians (9%) and Chinese (6%) was not statistically significant. Our key findings were ethnic South Asian patients with ischemic cerebrovascular disease were younger, had a greater male preponderance, higher frequency of risk factors of diabetes and hyperlipidemia as well as higher frequency of concomitant coronary artery disease. In relation to other risk factors, we agree with comments made by Gunarathne et al that low serum high-density lipoprotein (HDL) cholesterol and inflammation may be novel risk factors among ethnic South Asians. Our group has previously reported that metabolic syndrome is more prevalent, serum HDL cholesterol lower, and serum erythrocyte sedimentation rate higher among ethnic South Asian patients with stroke compared with age-, gender-, and diabetes-matched Chinese patients.

Gunarathne et al concluded that there is an “increased prevalence of lacunar stroke” in South Asians based on “only 2 studies that classified stroke according to TOAST taxonomy.” We agree that lacunar stroke is important and common among ethnic South Asians, and the underlying basis for this needs to be explored. However, the burden of large artery stroke is also high among ethnic South Asians, predominantly due to intracranial disease. From our knowledge, there are at least 2 other studies that classified stroke subtype distribution among ethnic South Asians by Trial of Org 10172 in Acute Treatment (TOAST) classification, both describing large artery stroke as the most common subtype (De Silva, 41%; Kaul, 41%), with intracranial large artery disease being the predominant etiology of large artery stroke. A clinical lacunar syndrome is often assumed to be due to small artery disease, but it is also often attributable to intracranial large artery disease in ethnic South Asians. Classification of stroke as lacunar in etiology can therefore be problematic if there is incomplete evaluation of large arteries. The 2 studies referenced by Gunarathne et al did not systematically assess the intracranial large arteries and thus may have underrecognized the burden of large artery stroke.

Disclosures

None.

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