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Racial/Ethnic Differences in Stroke in Young Adults

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Racial and ethnic differences in the risk of stroke are widely recognized, and these differences are even greater among younger populations. Younger adults have a lower risk of stroke; however, they represent a major public health priority as they live longer with their disabilities, have complications throughout their life, and have a longer period of time of lost productivity [1]. The report by Pathak and Sloan [2] in this issue of *Neuroepidemiology* presents evidence that blacks are over 3 times more likely than whites to be hospitalized for a stroke, and that Hispanics also have a higher stroke hospitalization rate as compared to whites. In addition, they found that after risk adjustment, the fatality rates for stroke are similar for blacks and whites. Interestingly, even after adjustment, Hispanic patients had a 34% decreased likelihood of dying in hospital. These findings support the idea that the excess stroke mortality in blacks [3, 4] is due to a higher incidence rate, not a higher fatality rate; therefore, it is important that research continue to explore the racial/ethnic differences in risk factors and access to care.

Prior research has shown race/ethnic differences in stroke incidence in young adults among specific urban communities. Among 74 young adults, aged 20–44 years, in the Northern Manhattan Stroke Study (NOMASS) [5], blacks had 2.4 times the risk of stroke as compared to whites. Although not statistically significant, the NOMASS findings suggest that blacks are at greater risk of stroke than whites. These findings were corroborated by similar findings in the Greater Cincinnati/Northern Kentucky region [6], in which blacks of all younger age groups (<35, 35–44, and 45–54 years) were significantly more likely to have a stroke as compared to whites [RR 2.2 (1.3–3.1), 5.0 (3.9–6.1), and 2.6 (2.0–3.2), respectively]. As part of the Baltimore-Washington Cooperative Young Stroke Study, the odds of ischemic stroke in blacks versus whites were 2.1 (95% CI, 1.2–3.6), and the odds of intracerebral hemorrhage for blacks to whites were 3.1 (95% CI, 1.3–7.4) [7].

The findings of higher stroke incidence for blacks extends beyond the United States, and is consistent with a higher incidence among other black populations. In the United Kingdom, the South London Stroke Registry found an annual incidence rate for cerebral infarction of 1.86 per 1,000 for blacks and 0.79 per 1,000 for whites among individuals age 35–64 years [8]. These higher incidence rates are similar to those of other black populations around the world including those in South Africa [9], Libya [10], and Martinique [11].

While the magnitude of the findings in this issue are similar to those of other studies, the study of Pathak and Sloan [2] is one of the largest to examine racial/ethnic differences in stroke hospitalization rates, in addition they have explored these differences among a population as diverse as Florida. They also present new information about the racial/ethnic differences in ischemic and hemorrhagic stroke separately, as well as examining racial differences in stroke rates over time (2000–2006). Since the 1990s, numerous articles and editorials have called for a reduction in the racial/ethnic differences in stroke rates. Pathak and Sloan [2] demonstrate that, at least in Florida, there have been no reductions in these race/ethnic differences from 2000 through 2006. Future studies examining why the rate of stroke is high among blacks are desperately needed, particularly for younger adults in which disparities are greatest.

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