High prevalence of stroke symptoms among persons without a diagnosis of stroke or transient ischemic attack in a general population: the REasons for Geographic And Racial Differences in Stroke (REGARDS) study.

BACKGROUND: A substantial portion of the general population has clinically silent stroke on brain imaging. These lesions may cause symptoms. This study assessed the prevalence of stroke symptoms in a stroke- and transient ischemic attack (TIA)-free population and the association of symptoms with risk factors indexed by the Framingham Stroke Risk Score.

METHODS: We performed a cross-sectional analysis from a randomly sampled national cohort enrolled from January 25, 2003, through November 30, 2005, with oversampling from the southeastern stroke belt and African American populations. The main outcome measure was stroke symptoms assessed by validated questionnaire.

RESULTS: The study included 18,462 (41% African American; 51% female; mean age, 65.8 years) participants who reported no stroke or TIA. The prevalence of stroke symptoms was 5.8% for sudden painless hemibody weakness, 8.5% for sudden hemibody numbness, 4.6% for sudden
painless loss of vision in one or both eyes, 3.1% for sudden hemifield visual loss, 2.7% for sudden inability to understand speech, and 3.8% for sudden inability of linguistic expression. The prevalence of 1 or more symptoms was 17.8%. Relative to the first quartile of the Framingham Stroke Risk Score, the adjusted odds ratio for 1 or more stroke symptoms increased from 1.0 (95% confidence interval [CI], 0.90-1.2) in the second quartile to 1.2 (95% CI, 1.1-1.5) and 1.5 (95% CI, 1.3-1.6) in successive quartiles. Symptoms were more prevalent among African American compared with white participants and among those with lower income, lower educational level, and fair to poor perceived health status.

CONCLUSIONS: The general population without prior diagnosed stroke or TIA has a high prevalence of stroke symptoms. The relationship between symptoms and risk factors suggests that some symptomatic individuals may have had clinically undetected cerebrovascular events and may benefit from aggressive stroke prophylaxis.

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