Dietary patterns are associated with incident stroke and contribute to excess risk of stroke in black Americans.

BACKGROUND AND PURPOSE: Black Americans and residents of the Southeastern United States are at increased risk of stroke. Diet is one of many potential factors proposed that might explain these racial and regional disparities.

METHODS: Between 2003 and 2007, the REasons for Geographic and Racial Differences in Stroke (REGARDS) cohort study enrolled 30,239 black and white Americans aged ≥45 years. Dietary patterns were derived using factor analysis and foods from food frequency data. Incident strokes were adjudicated using medical records by a team of physicians. Cox-proportional hazards models were used to examine risk of stroke.

RESULTS: During 5.7 years, 490 incident strokes were observed. In a multivariable-adjusted analysis, greater adherence to the plant-based pattern was associated with lower stroke risk (hazard ratio, 0.71; 95% confidence interval, 0.56-0.91; Ptrend=0.005). This association was attenuated after addition of income, education, total energy intake, smoking, and sedentary behavior. Participants with a higher adherence to the Southern pattern experienced a 39% increased risk of stroke (hazard ratio, 1.39; 95% confidence interval, 1.05, 1.84), with a significant (P=0.009) trend across quartiles. Including Southern pattern in the model mediated the black-white risk of stroke by 63%.

CONCLUSIONS: These data suggest that...
Dietary patterns are associated with incident stroke and contribute to excess risk of stroke in black Americans. Adherence to a Southern style diet may increase the risk of stroke, whereas adherence to a more plant-based diet may reduce stroke risk. Given the consistency of finding a dietary effect on stroke risk across studies, discussing nutrition patterns during risk screening may be an important step in reducing stroke.

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