

Predictors of recurrent stroke in African Americans.

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Abstract

BACKGROUND: Stroke incidence and mortality are disproportionately higher among African Americans than among whites. **OBJECTIVE:** To describe the recurrent stroke characteristics and determine the predictability of known vascular risk factors for stroke recurrence in African Americans. **METHODS:** The authors followed 1,809 African Americans in the African-American Antiplatelet Stroke Prevention Study with recent noncardioembolic ischemic stroke for recurrent stroke, recurrent stroke subtype, and disability. **RESULTS:** Of the subjects, 10.6% experienced a recurrent stroke during follow-up. The mean interval between eligibility and recurrent stroke was 325 days (median 287 days, SD = 224 days). Stroke recurrence resulted in an average 1.5-point increase in the National Institute of Health Stroke Scale ($p < 0.001$) and a 3.5-point decrease in modified Barthel Index ($p < 0.001$). Of previously nondisabled subjects, 48% became disabled or died after stroke recurrence ($p < 0.0001$). Longitudinal analysis resulted in a hazard for recurrent stroke for each 10-mm Hg increase in systolic blood pressure of 1.103 (95% CI: 1.031 to 1.179, $p = 0.004$), pulse pressure 1.123 (95% CI: 1.041 to 1.213, $p = 0.003$), and mean arterial pressure 1.123 (95% CI: 1.001 to 1.260, $p = 0.048$). Multivariate analysis revealed increases in the recurrent stroke hazard for increases in baseline Glasgow Outcome Score (1.449, 95% CI: 1.071 to 1.961, $p = 0.016$) and increases in longitudinal pulse pressure (1.009, 95% CI: 1.001 to 1.017, $p = 0.029$). **CONCLUSION:** Recurrent stroke leads to disability and disability predicts recurrent stroke. Hypertension is the most predictive modifiable stroke risk factor.