Impact of living and socioeconomic characteristics on cardiovascular risk in ischemic stroke patients.

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Abstract

OBJECTIVE:

We aimed to stratify the risk of vascular event recurrence in patients with cerebral infarction according to living and socioeconomic characteristics and geographic region.

METHOD:

The Outcomes in Patients with TIA and Cerebrovascular Disease (OPTIC) study is an international prospective study of patients aged 45 years or older who required secondary prevention of stroke [following either an acute transient ischemic attack, minor ischemic strokes, or recent (less than six-months previous), stable, first-ever, nondisabling ischemic stroke]. A total 3635 patients from 245 centers in 17 countries in four regions (Latin America, Middle East, North Africa, South Africa) were enrolled between 2007 and 2008. The outcome measure was the two-year rate of a composite of major vascular events (vascular death, myocardial infarction and stroke).

RESULTS:

During the two-year follow-up period, 516 patients experienced at least one major cardiovascular event, resulting in an event rate of 15·6% (95% confidence interval 14·4-16·9%). Event rates varied across geographical region (P < 0·001), ranging from 13·0% in Latin America to 20·7% in North Africa. Unemployment status, living in a rural area, not living in fully serviced accommodation (i.e., house or apartment with its own electricity, toilet and water supply), no health insurance coverage, and low educational level (less than two-years of schooling) were predictors of major vascular events. Major vascular event rates steeply increased with the number of low-quality living/socioeconomic conditions (from 13·4% to 47·9%, adjusted P value for trend <0·001).

CONCLUSION:

Vascular risk in stroke patients in low- and middle-income countries varies not only with the number of arterial beds involved but also with socioeconomic variables.