J Neurol Sci. 2013 Aug 15;331(1-2):43-7. doi: 10.1016/j.jns.2013.04.026. Epub 2013 May 28.

Incidence and 30-day case fatality rate of first-ever stroke in urban Nigeria: the prospective community based Epidemiology of Stroke in Lagos (EPISIL) phase II results.

Danesi MA[1], Okubadejo NU, Ojini FI, Ojo OO.

Author information

1 Neurology Unit, Department of Medicine, Faculty of Clinical Sciences, College of Medicine, University of Lagos, and Lagos University Teaching Hospital, Idi Araba, PMB 12003, Lagos State, Nigeria.

Abstract

BACKGROUND: Stroke is a leading cause of death worldwide and a major contributor to global disease burden. Although epidemiologic information from a community perspective is important in determining the magnitude of the burden in specific regions, and directing equitable distribution of health resources, data on the incidence of stroke in developing countries in Africa are scarce.

AIMS: To determine the current incidence rate and short-term (30-day) case fatality rate (CFR) of stroke in urban Nigeria, and provide age-adjusted and gender-specific incidence rates to enable comparison with global populations.

METHODS: The study was a prospective community-based stroke registry enrolling hospitalized and non-hospitalized first-ever in a lifetime stroke cases presenting at all health facilities (hospitals, homeopathic caregivers, physiotherapy clinics) located in the designated community. Pre-hospitalization deaths due to stroke were not included in our study. The study was conducted between January 1st and December 31st 2007 in Surulere Local Government Area of Lagos State, south western Nigeria, a mixed-income urban locality with a population of approximately 750,000 based on data from the National Population Commission. Stroke was defined using the World Health Organization (WHO) clinical criteria. Case fatality at 30-days post stroke was determined at follow-up on 160 hospitalized stroke cases.

RESULTS: 189 first-ever strokes, comprised of 112 men and 77 women (mean±SD age 58.5±13.5 years) were documented, giving a crude incidence rate of 25.2 per 100,000 per

year (95% confidence interval 21.6- 28.8). The gender-specific rates were 28.3/100,000 and 21.3/100,000 for males and females respectively. The age-adjusted incidence rate was 54.08 per 100,000 per year (adjusted to the WHO New World Population). Hospitalization rate was 84.6%, while the CFR (hospitalized) was 16.2%.

CONCLUSIONS: The stroke incidence in this urban sub-Saharan African community remains lower than that in emerging and developed economies, although the age- and gender-related trends and CFR are comparable to that in developed countries.

KEYWORDS: Africa; Case fatality rate; Incidence; Nigeria; Stroke; developing countries

PMID: 23726277 DOI: 10.1016/j.jns.2013.04.026

[Indexed for MEDLINE]

MeSH terms

LinkOut - more resources