Epidemiology of nonfatal stroke and transient ischemic attack in Al-Kharga District, New Valley, Egypt

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Abstract:

Background: Stroke is a medical emergency. Nonfatal stroke may cause permanent neurologic damage, complications, and disability. The aim of this study was to determine the epidemiology of nonfatal stroke in Al-Kharga District, New Valley, Egypt. Methods: The total population (62,583) was screened via a door-to-door study by three neurology specialists and 15 female social workers for demographic data collection. All subjects with probable stroke were subjected to a full clinical examination, neuroimaging (computed tomography and/or magnetic resonance imaging of the brain), and laboratory investigations including blood sugar, lipid profile, serum uric acid, a complete blood count, blood urea, and serum creatinine. Stroke severity and outcome were assessed using the Scandinavian Stroke Scale and Barthel Index. Carotid Doppler, echocardiography, and thyroid function tests were done in selected cases. Results: During the study period (June 1, 2005 to May 31, 2008), 351 subjects were diagnosed as having suffered a cerebrovascular stroke at some point during their lives, yielding a total lifetime prevalence of 5.6 per 1,000 population. Of these, 156 subjects were identified as having suffered a stroke during the year from January 1 to December 31, 2007, with an incidence rate of 2.5 per 1,000. Both prevalence and incidence rates were higher in urban (5.8 per 1,000 and 2.6 per 1,000, respectively) than rural communities (5.2 per 1,000 and 2.3 per 1,000), and were higher in males (6.1 per 1,000 and 2.7 per 1,000, respectively) than in females (5.1 per 1,000 and 2.3 per 1,000). Thrombotic stroke had the highest prevalence and incidence rates (4.2 per 1,000 and 1.7 per 1,000, respectively), whereas subarachnoid hemorrhage had the lowest prevalence and incidence rates (0.03 per 1,000 and 0.02 per 1,000). Conclusion: The prevalence of cerebrovascular accident in Al-Kharga lies in the lower range of that in developing countries, and is similar to that in industrialized countries.

Keywords:

prevalence, incidence, stroke, Egypt

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