Epidemiological Study and Risk Factors of Stroke in Assiut Governorate, Egypt: Community-Based Study


Abstract:

Background: Because there have been no epidemiological studies of stroke in Egypt, a community-based survey was conducted in the Assiut Governorate to estimate the prevalence and risk factors of stroke in our community.

Methods: A three-phase door-to-door study was performed in which 6,498 participants were chosen by random sampling from 7 districts in Assiut (first phase). Out of this sample, 578 dropped out leaving 3,066 males (51.8%) and 2,854 females (48.2%). There were 3,660 (61.8%) urban residents and 2,260 (38.2%) from the rural community. In the second phase participants were screened using the questionnaire for stroke, while the third phase involved medical evaluation of all suspected cases, with diagnosis of stroke confirmed by evaluation of CT scans. The Mini Mental State Examination and Hamilton Depression Scale were evaluated for each patient.

Results: 65 participants were identified as positive on the survey questionnaire, but only 57 patients were found to have stroke, giving a crude prevalence rate of 963/100,000 inhabitants with an age-adjusted local prevalence rate of 699.2/100,000 and an age-adjusted prevalence relative to the standard world population of 980.9/100,000. The prevalence among males was higher than females (1174/100,000 vs. 736/100,000) with a ratio 1.7:1. There was a significantly higher prevalence of ischemic (895/100,000) than hemorrhagic (68/100,000) stroke. Stroke prevalence was the same in rural and urban areas and in males and females. There was, however, a significantly higher prevalence in illiterate (2413/100,000) than literate participants (357/100,000). Forty-two patients (73.7%) had one or more risk factors for stroke, hypertension being the commonest (66%) and diabetes mellitus second (38.6%). Nine cases had poststroke dementia (15.8%) and 14 cases (24.6%) had mild depression.

Conclusions: The overall prevalence rate of stroke is high, especially in older adults, men and illiterate individuals. A higher prevalence of ischemic than hemorrhagic stroke was recorded, with hypertension and diabetes mellitus being the commonest risk factors in our community.

Keywords:

Ischemic stroke · Hemorrhagic stroke · Prevalence · Post-stroke dementia · Risk factors

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