Risk factors and prevalence of non fatal stroke in Sri Lanka – a community based study

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Introduction

Even though there is much published data on the risk factors and prevalence of non-fatal stroke in different communities, scientific data is limited in the Sri Lankan setting. Therefore new data on non-fatal strokes/TIA in the Sri Lankan community will be invaluable in policy making and in resource allocation in the health sector.

Objectives

To determine the prevalence and risk factors of non fatal strokes/TIA in the Sri Lankan population.

Methods

A random sample of 4485 non-institutionalized adults aged ≥18yrs was selected and their anthropometric details and its correlates were collected as a part of the Sri Lanka Diabetes and Cardiovascular Study (SLDCS) which was a national level community based study on diabetes and cardiovascular disease. Diagnosis of stroke was made according to the WHO definition. Patients who had suffered a non fatal stroke were identified by an interviewer administered questionnaire using the defined diagnostic criteria. Results were analyzed using independent T test and correlation.

Results

Out of 4473 participants 72 had suffered a non-fatal stroke/TIA giving a prevalence of 1.609% in the community. Occurrence of non-fatal stroke/TIA showed a statistically significant ($p<0.05$) relationship with the male sex, alcohol consumption, low physical activity, waist hip ratio, low HDL cholesterol, raised blood sugar (FBS/PPBS) and left ventricular hypertrophy. Presence of co-morbidities such as diabetes mellitus, hypertension, ischemic heart disease, peripheral vascular disease, and pancreatic disease also proved to have a significant association with the occurrence of Stroke/TIA. There was no statistically significant relationship with regard to the presence of family history of hypertension, ischemic heart disease and stroke in siblings, parents and grandparents.

Conclusion

The prevalence of non-fatal stoke/TIA in the Sri Lankan community was found to be almost twice as high compared to a similar study done in Bombay India (0.842% prevalence in the Parsi community). However it was significantly lower than the prevalence of 19.1% observed in a study conducted in an urban slum of Karachi, Pakistan.

Although our study reveals a relatively low prevalence of non-fatal stoke/TIA in the Sri Lankan community, it is in our best interest to increase awareness regarding stroke prevention and the treatment options available. This study has also highlighted the importance of blood pressure and glycaemic control in the prevention of strokes/TIA.