LONG-TERM SURVIVAL OF ISCHEMIC AND HEMORRHAGIC STROKE PATIENTS: AN ANALYSIS OF NATIONAL THAI DATA

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Abstract. Stroke is a leading cause of death and disability in Thailand. We conducted this study to determine any disparities in stroke due to health care in order to improve stroke survival and identify those at risk for shorter stroke survival. We retrospectively reviewed stroke survival data from the Thai National Stroke Database for 2004-2013, and found 475,571 patients with ischemic and hemorrhagic stroke. Of these, 55% were male and median age was 65 years old (age ranges 13-100 years). Twenty-nine point one percent of patients were from central Thailand, 26.9% from the northeast, 22.6% from the north, 12.8% from the south and 8.6% from Bangkok. We used the Kaplan-Meier and Cox regression methods to analyze the data. The median survival of post >30-day ischemic stroke patients (81 months) was significantly shorter (p<0.001) than hemorrhagic stroke patients (101 months). While the median survival time of post >30-day stroke patients was significantly longer among men (88 months) than among women (82 months) (p<0.001). Stroke survival decreased significantly with increasing age (p<0.001). Median survival time significantly differed among regions of Thailand. For ischemic stroke, patients in Bangkok had the longest median survival (95 months) followed by those from the south (91 months), the central (81 months), the northeast (79 months) and the north (76 months). The longest median survival for patients with hemorrhage stroke was those in Bangkok (119 months) followed by the northeast (105 months), the north (98 months), and the south and central (97 months). Public health strategies need to be developed and implemented to solve these disparities in stroke survival.

Keywords: survival of stroke, epidemiology, Kaplan-Meier method, regional disparities, Thailand

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