Prevalence and clinical characteristics of stroke mimic in academic center

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Abstract

Background: Acute stroke is a clinical diagnosis and decision making for thrombolysis is restricted to a limited time window. There were stroke mimic conditions approximately 3.5% in patients who suspected acute stroke within 7 days at Ramathibodi Hospital, Bangkok, Thailand since 2004.

Objective: To determine the prevalence and to identify the key clinical features, nature, complication and short term outcome of stroke mimics in our center.

Methods: We reviewed the medical records of consecutive patients ≥18 year olds who suspected acute ischemic stroke within 7 days from onset symptoms by neurology resident, during Jan 1, 2013-Dec 31, 2014. Clinical diagnosis was confirmed by brain imaging and neurology staff opinion. We categorized the patients into two group: true acute ischemic stroke and stroke mimic, randomed the consecutive acute ischemic stroke who presented within 2 days the same period with stroke mimic and compared baseline characteristic, clinical presentation, initial CT brain, complication and short term outcome.

Results: 41 of 1,406 (2.21%) had stroke mimic, 39 of 41 (95%) mimic in our study were neurological condition. Only 4 items were independent predictors of stroke mimics: younger than 50 years (OR 20.91, 95%CI 2.09–208.54), BP ≤ 150/90 mmHg (OR 6.51, 95%CI 1.32–32.17), no facial asymmetry (OR 7.6, 95%CI 1.90–30.08) and no hemiparesis (OR 14.63, 95%CI 2.9–73.59).

Conclusions: The prevalence of stroke mimics approximately were 2.21%, diagnosed by trained neurologist. Only 4 items were independent predictors of stroke mimics: younger than 50 years, BP ≤ 150/90 mmHg, no facial asymmetry and no hemiparesis.

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Keywords: characteristics, prevalence, stroke, stroke mimics