

ABSTRACT

VALIDITY OF SIRIRAJ STROKE SCORE IN DIFFERENTIATING CEREBRAL INFARCT AND HAEMORRHAGE IN SOUTH INDIANS

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KEYWORD: Cerebral infarct, cerebral haemorrhage, Siriraj Stroke Score

Introduction: Computed tomography (CT) scan is an accurate, safe, non-invasive procedure routinely used as an investigative tool for stroke to distinguish between infarction and haemorrhage. Computed tomography scanning of brain is expensive in both the initial investment and maintenance. In developing countries like India, cost and availability constraints prohibit its widespread use especially in rural areas. Clinical stroke scores were developed to overcome these limitations. Differential diagnosis between infarction and haemorrhage can be made on clinical grounds with aid of Siriraj Scoring System. CT scan is not readily available in semi-urban and rural areas and the

scoring systems will then come into play in differentiating the stroke subtype. This study is being done to determine the sensitivity, specificity of Siriraj score

AIMS AND OBJECTIVES

1. To differentiate between cerebral infarct and intra cerebral hemorrhage on the basis of Siriraj Stroke Score.
2. To find out the sensitivity, specificity and overall accuracy of the scoring system by comparing it with the CT scan findings.

MATERIALS & METHOD: Cross-sectional study was conducted among patient from general medicine ward of Govt. Rajaji hospital Madurai during the period of March 2016 to august 2016. Study included 60 cases of stroke. Subjects believed to fulfill all eligibility criteria, and none of the exclusion criteria were included in the study.

METHODOLOGY: On admission detailed history and thorough clinical examination including neurological assessment will be carried out. Patients will be assumed to be fully conscious if they had a score of >13 on the Glasgow Coma Scale (GCS), drowsy if they had a GCS score of 8–13 and unconscious if they scored <7 . Siriraj Stroke Score will be calculated and compared with the CT findings done on admission. A radiologist from the hospital, blind to the clinical features, will classify the CT brain scans as either infarction or haemorrhage.

Siriraj Stroke Score (SSS) will be calculated using the formula

= (2.5×level of consciousness) + (2×vomiting) + (2×headache) + (0.1×diastolic blood pressure) - (3×atheroma markers) -12.

RESULT: our study included 60 patients. The mean age of the patients was 60.2 years. 65 % were males and 35% were females. 75 % patient had infarction in the CT scan. 25% patients had haemorrhage on CT scan. 51.66% were predicted on siriraj score to have ischemic stroke out of 45 infarction cases. 30% were predicted to have haemorrhagic stroke on siriraj score. 18.3% were inconclusive. In this study, Siriraj score showed positive predictive value of 80.64% for ischemic stroke and negative predictive value of 78.57% for hemorrhagic stroke and the P value is 0.015 (significant).

CONCLUSION: Based on clinical variables such as level of consciousness, blood pressure, atheroma markers and the presence of headache and vomiting, Siriraj Stroke Score, a clinical scoring can be used for the bedside diagnosis of the nature of the lesion in stroke patients where CT scan is not available immediately.

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