

Abstract on Brain Stroke

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Abstract

Background and Objectives: In India, stroke is associated with a high morbidity and mortality. It is important to distinguish between cerebral haemorrhage and infarction in cases of acute stroke, since management of these two disorders differs substantially. This study assessed the Siriraj stroke score and Guy's Hospital stroke score in differentiating cerebral haemorrhage from infarction and to correlate both scores with computed tomography (CT) scan of brain.

Materials and Methods: The study was conducted on 50 patients admitted with acute stroke over a period of one year. Siriraj stroke score was calculated on admission and Guy's Hospital stroke score was calculated 24 hours after admission. All patients were subjected to CT scan head within 72 hours of admission. The sensitivity, specificity, positive predictive value were calculated for both the scores. Comparability between the scores and CT scan Brain finding was determined with the help of Kappa statistic program.

Results: of the 50 patients admitted with acute stroke CT scan head showed infarction in 24 patients and haemorrhage in 26 patients. The sensitivity, specificity and positive predictive value for Siriraj stroke score were 86.6%, 87.5%, 81.25% for infarction and 87.5%, 86.6%, 91.3% for haemorrhage respectively, whereas the corresponding figures for Guy's Hospital stroke score

were 94.4%, 83.33%, 85% for infarction and 83.33%, 94.4%, 93.74% for haemorrhage respectively.

While considering CT scan finding as gold standard, the overall comparability between Siriraj stroke score and Guy's Hospital stroke score was substantial ($K=0.577$).

Conclusion: CT scan brain is an accurate, safe and noninvasive procedure for differentiating between cerebral haemorrhage and infarction. However, when CT scan facilities are not available especially in rural setup, we suggest Siriraj stroke score as a simple method of screening patients for intracerebral haemorrhage, as it is easier to use at bedside and has a greater accuracy in diagnosing haemorrhage than Guy's Hospital score. Guy's Hospital score is not useful because it can be assessed only after 24 hours of onset of stroke. This deprives the management to all thrombotic patients in speculated time window of modern management.