BACKGROUND

Accurate prediction of outcome after primary intracerebral haemorrhage (ICH) is necessary to identify those patients who need special care or who would benefit from particular therapeutic strategies. Several scales for prediction of ICH mortality have been designed to date with different characteristics regarding applicability, scale components, scoring and performance. Of them, the ICH score has proven to be reliable in predicting 30-day mortality in different populations and clinical circumstances and in predicting functional outcome among survivors. The ICH score is a simple clinical scale useful in assessing severity of ICH and comprises the Glasgow Coma Score, age, location of haematoma, volume of haematoma and intraventricular extension. This study was thus carried out to explore the use of the ICH score in predicting outcome (30 day case fatality and 60 day functional outcome) in patients with acute ICH in our population.

OBJECTIVES

To evaluate the relationship between the ICH score and short term (30-day) case fatality rate following acute ICH. Specifically, the relationship of overall ICH score, and the components of the score (hematoma volume, GCS, age, location of haematoma and intraventricular extension) to 30-day CFR.

To evaluate the relationship between the ICH score and short term (60-day) functional outcome following acute ICH. Specifically, the relationship of overall ICH score, and the components of the score (hematoma volume, GCS, age, location of haematoma and intraventricular extension) to 60-day functional outcome of (on the modified Rankin Scale).
METHOD

This was a prospective cohort study of 101 consecutive patients with acute ICH admitted to the Lagos University Teaching Hospital. Severity was assessed on admission using the ICH Score and its components along with baseline clinical characteristics. The outcome measures were mortality at 30 days and functional outcome of survivors at day 60, using the modified Rankin Scale (mRS).

RESULTS

Overall, out of the 101 patients, 42 (41.6%) died within 30 days of stroke onset. 30-day case fatality rates of 0% was recorded for ICH scores of 0 and 1, while scores of 2,3,4 and 5 had CFRs of 80%, 87%, 100%, and 100% respectively. Of the components of the ICH score, the admission GCS (p<0.001) and haematoma volume (p=0.02) had the strongest association with the 30–day CFR. The presence of intraventricular extension (p=0.04) was also a strong factor.

On day 60 there were 57(56.4%) survivors, the overall functional outcome was poor in 54.4% and good in 45.6%. Patients with ICH score ≥3 had 100% poor functional outcome compared to score <3 with 53.6% poor outcome. Patients aged ≤ 40 years had 9.1% poor functional outcome compared to 80% in those aged >60 years. Patients with GCS of 5-12 had 90% poor outcome compared with 35% in those with GCS of 13-15. Hundred percent poor functional outcome was recorded in patients with haematoma volume ≥30 mls and 49% for volume <30mls. Functional outcome was poor in 75% of those with intraventricular extension and 53% in those without extension.
CONCLUSION

The ICH Score is a useful clinical tool for assessing severity in patients with acute ICH. Higher admission ICH scores were associated with worse outcomes ie increased 30-day CFR and poor functional outcome on day 60.