PRACTICE POINTS

Predicting mortality in patients with head injury

As head injury is an important cause of traumatic death, it is essential to establish which clinical parameters available soon after injury can be used to accurately predict outcome.

In an article published in the Archives of Surgery[1], Texan surgeons established determinants of mortality among patients with severe blunt head injury, which, we believe have a bearing on practice of surgery in Africa.
In a follow up study, they recruited patients with severe blunt head injury, as defined by inability to follow commands, and prospectively entered the data into a database.

The impact on survival of 23 potentially predictive parameters was studied using univariate analysis. Logistic regression models were used to control for confounding factors and to assess interactions between variables, whose significance was determined by univariate analysis.

They found, by logistic regression analysis, that five risk factors were independently associated with death. These included systemic hypotension on admission, midline shift on the CT scan, intracranial hypertension, and absence of pupillary light reflex. A low Glasgow Coma Scale score and advanced age were found to be highly correlated risk factors that, when combined, were independently associated with mortality.

1. Schreiber MA, Aoki N, Scott BG, Beck RJ Determinants of mortality in patients with severe blunt headinjury *Arch Surg. 2002; 137:285-290*