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REPORT ON THE TRAUMATIC COMA DATA BANK

The outcome of severe closed head injury

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Abstract

✓ The outcome of severe head injury was prospectively studied in patients enrolled in the Traumatic Coma Data Bank (TCDB) during the 45-month period from January 1, 1984, through September 30, 1987. Data were collected on 1030 consecutive patients admitted with severe head injury (defined as a Glasgow Coma Scale (GCS) score of 8 or less following nonsurgical resuscitation). Of these, 284 either were brain-dead on admission or had a gunshot wound to the brain. Patients in these two groups were excluded, leaving 746 patients available for this analysis.

The overall mortality rate for the 746 patients was 36%, determined at 6 months postinjury. As expected, the mortality rate progressively decreased from 76% in patients with a postresuscitation GCS score of 3 to approximately 18% for patients with a GCS score of 6, 7, or 8. Among the patients with nonsurgical lesions (overall mortality rate, 31%), the mortality rate was higher in those having an increased likelihood of elevated intracranial pressure as assessed by a new classification of head injury based on the computerized tomography findings. In the 276 patients undergoing craniotomy, the mortality rate was 39%. Half of the patients with acute subdural hematomas died — a substantial improvement over results in previous reports. Outcome differences between the four TCDB centers were small and were, in part, explicable by differences in patient age and the type and severity of injury.

This study describes head injury outcome in four selected head-injury centers. It indicates that a mortality rate of approximately 35% is to be expected in such patients admitted to experienced neurosurgical units.

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By Keywords: Traumatic Coma Data Bank, head injury, intracranial pressure, outcome, coma