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Early Versus Late Tracheostomy in Patients with Severe Traumatic Head Injury

A majority of patients with severe traumatic brain injury (TBI) need ventilatory support and require endotracheal intubation. There has been substantial debate regarding the timing of tracheostomy. Ahmed and Kuo in a prospective study of 55 patients with severe traumatic brain injury showed that patients undergoing early tracheostomy had shorter ICU stay without any increase in the morbidity and mortality.¹

Recurrence Rates in Chronic subdural Hematoma

Chronic Subdural hematoma is a commonly encountered neurosurgical problem and recurrence is one of the taxing problem both for the neurosurgeons as well as for the patients. Amirjamshidi, et al.² in a study of eighty-two consecutive patients sought to determine the relationship between outcome (assessed by Glasgow Outcome Scale) and recurrence in chronic subdural haematoma (CSDH) who underwent surgery. The relationship between the following variables and CSDH recurrence was studied: sex; age; history of trauma; Glasgow Coma Scale (GCS) at the time of admission (stage 1: GCS>12, stage 2: GCS: 8 - 12, stage 3: GCS<8); interval between head injury (when a history of trauma was present) and surgery; presence of a midline shift on CT scans; presence of intracranial air 7 days after surgery; haematoma density; haematoma width; presence of brain atrophy; and Glasgow Outcome Scale (GOS, both quantitative and non-quantitative) at the time of discharge. Throughout the analysis, $p<0.05$ was considered statistically significant. The results showed lower GCS ($p<0.001$), higher GOS ($p<0.001$), presence of intracranial air 7 days after surgery ($p=0.002$), and a high density haematoma ($p<0.001$) were significantly associated with recurrence of CSDH. It was concluded that GOS is related with recurrence in CSDH.

Cerebral Response to Patient's Own Name in the Vegetative and Minimally Conscious States

A challenge in the management of severely brain-damaged patients with altered states of consciousness is the differential diagnosis between the vegetative state (VS) and the minimally conscious state (MCS), especially for the gray zone separating these clinical entities. Di and colleagues,³ have tried to prospectively evaluate the differences in brain activation in response to presentation of the patient's own name spoken by a familiar voice (SON-FV) in patients with VS and MCS using functional MRI. They studied residual cerebral activation to SON-FV in seven patients with VS and four with MCS. Behavioral evaluation was performed by means of standardized testing up to three months post-fMRI. Two patients with VS failed to show any significant cerebral activation. Three patients with VS showed SON-FV induced activation within the primary auditory cortex. Finally, two patients with VS and all four patients with MCS not only showed activation in primary auditory cortex but also in hierarchically higher order associative temporal areas. These two patients with VS showing the most widespread activation subsequently showed clinical improvement to MCS observed 3 months after their fMRI scan.

References

1. Ahmed N, Kuo YH: Early versus late tracheostomy in patients with severe traumatic head injury. **Surg Infect (Larchmt)** 8:343-347, 2007
2. Amirjamshidi A, Abouzari M, Eftekhari B, et al : Outcomes and recurrence rates in chronic subdural haematoma. **Br J Neurosurg** 21:272-275, 2007
3. Di HB, Yu SM, Weng XC, et al: Cerebral response to patient's own name in the vegetative and minimally conscious states. **Neurology** 68:895-899, 2007