

## **Analysis of Pre Operation Time as a Prognostic Factor in Traumatic Acute Subdural Hematoma**

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**BACKGROUND:** Head trauma is the most commonly seen trauma mechanism in emergency department and has the highest mortality rate in traffic accident. More than one thousand cases were registered every year to Hasan Sadikin Hospital because of head trauma. The mechanical forces applied to the head during trauma could create simple wound, skull fracture and even intracranial bleeding for instance epidural, subdural, intracerebral hematoma. Mortality rate of acute traumatic subdural hematoma (ASDH) can reach 40-90%. Many factors affect the outcome of the patient with ASDH. Despite the principle of "Golden Hour" for trauma patients, no evidence exists to support it nor does any surgeon manage to duplicate the result. Previous studies may have been affected by many biases. The purpose of this study was to investigate any relationship between times consumed from the accident to the definitive treatment, which is craniectomy decompression, with mortality in trauma patients with acute subdural hematomas to improve the functional outcome of these patients.

**METHODS:** Consecutive patients who underwent surgical intervention for traumatic ASDH between April 2009 and April 2011 were studied. Their data were collected and classified into variables. Statistical count was then applied to see any relationship between times consumed before operation to the patients' outcome.

**RESULTS:** There were 93 patient with most were male (75,3%). There were 6 cases of mild head injury, 28 moderate head injury and 58 with severe cases. Time spent between accident to operation, in overall, was 19,6 hours with range 4-54 hours.

**CONCLUSION:** Many factors affected the outcome of ASDH patients. Rapid transport to nearest hospital, with neurosurgery facility, associated with better outcomes. Being retrospective analysis, the study suffers from its own set of limitation. The validity of this study could also be improved by recruiting large number of patients.

**Keywords :** Time, Subdural Hematoma, Outcome