

The outcome of admission for patients with mild traumatic brain injury and isolated traumatic subarachnoid hemorrhageJeppe Damgren Vesterager¹, Jens Dyrskjød¹, Kristoffer Ambeck Aagaard¹, Jens Jakob Riis¹¹ Aalborg University hospital**Objective:**

This study aims to review the outcomes of admission for patients with traumatic brain injury (TBI) and a Glasgow coma score (GCS) ≥ 13 with isolated traumatic subarachnoid hemorrhage.

Materials and methods:

Retrospective cohort study, using prospectively collected data from patient charts. All patients admitted after TBI with radiological confirmed intracranial hemorrhage and GCS ≥ 13 , were included. Data on the type of hemorrhage was collected. The outcomes of interest were length of hospital stay (LOS), repeated head CT (RHCT), discharge to inpatient rehabilitation, and neurosurgical intervention. Relative risk (RR) for discharge to inpatient rehabilitation and RHCT was calculated with traumatic subarachnoid hemorrhage (tSAH) as reference for acute subdural hemorrhage (aSDH), traumatic intracerebral hemorrhage (tICH) and epidural hemorrhage (EDH) as a pooled category.

Results:

Over a period of 2 years and 8 months, a total of 127 patients were included. The RR of discharge to rehabilitation was 2.6 (1.1-5.8, 95%-confidence interval) for the pooled group compared with tSAH. The RR of RHCT was 1.3 (1.1-1.6, 95%-confidence interval) for the pooled group compared with tSAH. The mean LOS was 2.0 days for tSAH and 3.2 days for the pooled group. Two patients from the pooled group required neurosurgical intervention. In the tSAH group, antiplatelet treatment did not increase the risk of discharge to inpatient rehabilitation.

Conclusion

Patients admitted with mild TBI and isolated radiologically described tSAH have a shorter LOS, lower risk of RHCT, and a lower risk of requiring inpatient rehabilitation at discharge, compared to patients with mild TBI and other types of intracranial hemorrhage.