

Loss of Consciousness Predictor of High Risk for Seizures in Mild Traumatic Brain Injury: prospective analysis of 134 patients with mTBI S Kumar MD. P Shah.

Objective:

To study loss of consciousness and cognitive impairment as a predictor of high risk for seizures in mild traumatic brain injury.

Background:

Almost 1.1 million individuals experience a TBI, are evaluated and released from an emergency department each year. Mild TBI comprises 70%–80% of all head injuries. We do not have any standard protocol for recommendation and follow up after mTBI patients are discharged from emergent care.

Method:

Perspective study of patients presented in TBI clinic for 2 yrs. Routine EEG as a standard protocol was followed after clinical evaluation and Montreal cognitive assessment was administered to all patients.

Results:

134 patients presented to the TBI clinic in 2 years, 64 patients (47.7%) experienced transient loss of consciousness. Nine patients (6.7%) had one episode of overt seizures. In Loss of consciousness group 43.7% had abnormal EEG, and 14.06% in LOC group had reported seizure. A general linear model multifactor analysis of variance (ANOVA) showed loss of consciousness ($p = 0.043$) as the only factor directly relating to the demonstration of abnormal electrical discharges on EEG

Conclusion:

There is direct correlation of the loss of consciousness and the abnormal EEG as well as seizure episodes in mTBI patients. Abnormal electric signals from the injured brain coincide with the presence of specific or generalized cognitive impairments even when the patients are subjectively unaware of them.