

Early posttraumatic seizures tied to worse traumatic brain injury outcomes

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Early posttraumatic seizures (EPS) after moderate-to-severe traumatic

brain injury (TBI) are associated with poor outcomes, according to a study published online Feb. 21 in *JAMA Neurology*.

Joshua Laing, M.B.B.S., from Monash University in Melbourne, Australia, and colleagues evaluated risk factors for EPS and associated outcomes among 15,152 patients with moderate-to-severe TBI between 2005 and 2019 with two years of follow-up.

- The researchers found that 2.7% had EPS, including 0.2% with status epilepticus.
- Significant risk factors for developing EPS were younger age, higher Charlson Comorbidity Index, TBI sustained from a low fall, subdural hemorrhage, [subarachnoid hemorrhage](#), higher Injury Severity Score, and greater head injury severity, measured using the Abbreviated Injury Scale and Glasgow Coma Score.
- EPS were associated with increased [intensive care unit](#) (ICU) admission and ICU length of stay, ventilation and duration, hospital length of stay, and discharge to inpatient rehabilitation rather than home—but not in-hospital mortality—in an adjusted analysis.
- For cases with EPS, outcomes were poorer at 24 months, including the outcomes of mortality (relative risk, 2.14), development of posttraumatic epilepsy (relative risk, 2.91), and use of antiseizure medications (relative risk, 2.44).

"EPS after moderate-to-severe TBI are associated with poorer in-hospital and longer-term outcomes and may be predicted via identified clinical [risk factors](#)," the authors write.

More information: Joshua Laing et al, Risk Factors and Prognosis of Early Posttraumatic Seizures in Moderate to Severe Traumatic Brain Injury, *JAMA Neurology* (2022). [DOI: 10.1001/jamaneurol.2021.5420](https://doi.org/10.1001/jamaneurol.2021.5420)

James J. Gugger et al, Early Posttraumatic Seizures—Putting Things in Perspective, *JAMA Neurology* (2022). DOI: [10.1001/jamaneurol.2021.5419](https://doi.org/10.1001/jamaneurol.2021.5419)

Several authors disclosed financial ties to the pharmaceutical industry.

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