

ABSTRAK

Latar Belakang: Cedera Otak Traumatik (COT) merupakan penyebab utama morbiditas dan mortalitas global. Meskipun penatalaksanaan neurokritis telah berkembang, angka kematian pasien COT di *Intensive Care Unit* (ICU) tetap tinggi dan bervariasi.

Tujuan: Menganalisis faktor risiko *in-hospital mortality* pasien cedera otak traumatik di rawatan intensif RSUP Dr. Sardjito Yogyakarta.

Metode: Penelitian observasional analitik dengan pendekatan kohort retrospektif dilakukan terhadap pasien COT di ICU periode 1 Juni 2024 – 31 Mei 2025. Data rekam medis dianalisis menggunakan uji univariat, bivariat, dan regresi logistik multivariat.

Hasil: Dari 155 subjek, angka mortalitas mencapai 30,97% (48 pasien). Analisis multivariat menunjukkan bahwa usia lanjut ($OR = 10,509$; $p < 0,001$) dan skor GCS awal yang rendah ($OR = 0,349$; $p = 0,002$) merupakan prediktor signifikan kematian. Selama perawatan, gangguan kardiovaskular ($OR = 0,089$; $p < 0,001$) dan durasi ventilasi mekanik yang memanjang ($OR = 0,276$; $p = 0,013$) juga berkorelasi kuat dengan mortalitas. Sebaliknya, tindakan operasi ditemukan sebagai faktor protektif yang meningkatkan peluang hidup pasien ($OR = 3,084$; $p = 0,034$).

Kesimpulan: Usia lanjut, skor GCS rendah, gangguan kardiovaskular, dan penggunaan ventilasi mekanik jangka panjang adalah determinan independen risiko *in-hospital mortality* pasien cedera otak traumatik di rawatan intensif RSUP Dr. Sardjito. Intervensi bedah berperan penting dalam menurunkan risiko *in-hospital mortality* pasien cedera otak traumatik di rawatan intensif RSUP Dr. Sardjito.

Kata Kunci: Cedera otak traumatik, Mortalitas, Rawatan Intensif

ABSTRACT

Background: *Traumatic Brain Injury (TBI) is a leading cause of global morbidity and mortality. Despite advancements in neurocritical care, the mortality rate for TBI patients in the Intensive Care Unit (ICU) remains high and varies significantly.*

Objective: *To analyze the risk factors for in-hospital mortality among traumatic brain injury patients in the intensive care unit of RSUP Dr. Sardjito Yogyakarta.*

Methods: *An analytical observational study with a retrospective cohort approach was conducted on TBI patients in the ICU from June 1, 2024, to May 31, 2025. Medical record data were analyzed using univariate, bivariate, and multivariate logistic regression tests.*

Results: *Of the 155 subjects, the mortality rate was 30.97% (48 patients). Multivariate analysis showed that advanced age ($OR = 10.509$; $p < 0.001$) and low initial GCS scores ($OR = 0.349$; $p = 0.002$) were significant predictors of mortality. During treatment, cardiovascular disorders ($OR = 0.089$; $p < 0.001$) and prolonged duration of mechanical ventilation ($OR = 0.276$; $p = 0.013$) also correlated strongly with mortality. Conversely, surgical intervention was found to be a protective factor that increased the patients' chances of survival ($OR = 3.084$; $p = 0.034$).*

Conclusion: *Older age, low GCS scores, cardiovascular disorders, and long-term mechanical ventilation use are independent determinants of in-hospital mortality for traumatic brain injury patients in intensive care. Surgical intervention plays a crucial role in reducing the risk of in-hospital mortality for TBI patients in the intensive care unit of RSUP Dr. Sardjito.*

Keywords: *Traumatic brain injury, Mortality, Intensive Care*