

Background:

Traumatic brain injury (TBI) represents one of the main causes of death and disability in young people worldwide. In Uruguay data remains scarce.

Objectives:

To describe the clinical characteristics, management and morbimortality in the last 15 years in a tertiary referral university hospital in Montevideo, Uruguay.

Methods:

Retrospective, cross-sectional and analytical design. Data was extracted from medical records. Severe closed TBI patients were included: GCS ≤ 8 and/or urgent neurosurgery needed at admission. Other inclusion criteria were age older than 14 years old and both genders. Exclusion criteria: patients who associated a second cause of brain injury and those with early withdrawal of life – sustaining treatment (first 48 hours) or brain death at admission.

Results:

370 patients were enrolled, 77% male, age [median (IQR)] 34 (24 – 54) years old, APACHE II [median (IQR)] 23 (17 – 27), GCS [median (IQR)] 6 (3 – 8), motor sub - score [median (IQR)] 3 (1 – 5). 86% were under analgo-sedation infusion at admission. 8.7% presented unilateral mydriasis and 5.6% bilateral mydriasis. Marshall CT head classification: 70% were I-II and 30% were III to VI. 40% underwent ICP/ CPP monitoring. 28% presented shock. Mortality at hospital discharge was 21%. ICU length of stay [median (IQR)] was 9 (5 – 17) and hospital length of stay [median (IQR)] was 19 (7 – 38) days. According to the extended Glasgow Outcome Score, 51% achieved favourable outcome (5 to 8) at 6 months.

Conclusions:

Our data confirm significant impact of severe TBI in young people in Uruguay. Analgo - sedation can be a confounding factor when evaluating the severity of TBI. The observed functional outcome and mortality are similar that rates published by several international university hospitals worldwide.

References:

Bonow RH, Barber J, Temkin NR, et al; Global Neurotrauma Research Group. The Outcome of Severe Traumatic Brain Injury in Latin America. *World Neurosurg.* 2018 Mar;111:e82-e90. Steyerberg EW, Wieggers E, Sewalt C, et al; CENTER-TBI Participants and Investigators. Case-mix, care pathways, and outcomes in patients with traumatic brain injury in CENTER-TBI: a European prospective, multicentre, longitudinal, cohort study. *Lancet Neurol.* 2019 Oct;18(10):923-934.