



Introduction

In Uganda, TBI constitutes the majority of neurosurgical admissions and deaths, especially in the pediatric population. This study aims to determine the factors associated with poor outcome among pediatric TBI cases at a major referral hospital in western Uganda with the outcome.

Methods

This study was conducted at Mbarara Regional Referral Hospital (MRRH) in western Uganda. All pediatric neurosurgical cases between 2012 and 2015 were reviewed. In-hospital mortality and discharge GCS were the main outcomes of interest. Multivariable logistic regression with backward elimination was used to determine the factors significantly associated.

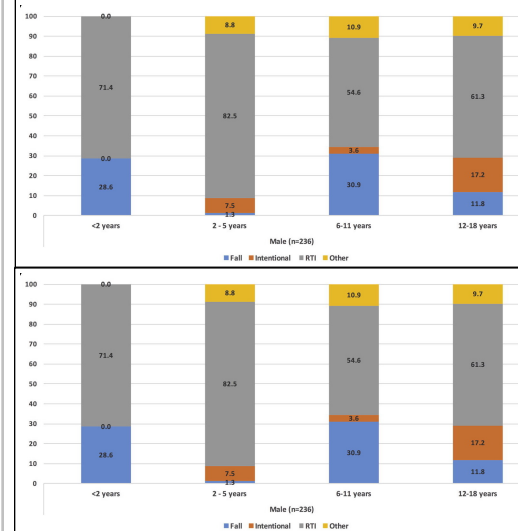
Results

A total of 381 pediatric TBI patients were admitted to MRRH between 2012 and 2015. The mean age was 8.6 (SD 5.6) with a male predominance (62.0%). The most common mechanism of injury overall was RTI, which was responsible for 71% of all TBI cases. In the multivariable logistic regression model, admission GCS <13 was a strong predictor of poor outcome and in-hospital mortality compared to admission GCS \geq 13, with patients demonstrating an odds ratio of 30 (95%CI: 7-132) and OR of 18 (95%CI: 4-79), respectively.

Conclusions

Given the lack of published literature on pediatric TBI in LMICs, this study was the first to describe and evaluate risk factors associated with TBI severity among pediatric patients at a major referral hospital in western Uganda. Injury severity on admission was the only variable found to be significantly associated with discharge outcome. While future prospective studies are needed to further assess factors affecting the incidence and outcomes of pediatric TBI patients, this study ultimately highlights the need for more effective preventative measures to decrease admission severity.

TBI mechanism of injury by age group and sex



Learning Objectives

- Describing the epidemiology of pediatric TBI in Western Uganda
- Identifying the factors associated with poor outcome
- Identifying gaps in research and areas of intervention