

## Traumatic Brain Injury in Cameroon: A Prospective Observational Study in a Level 1 Trauma Centre

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**Abstract :** Introduction: Studying TBI characteristics and their relation to outcomes can identify initiatives to improve TBI prevention and care. The objective of this study was to define the features and outcomes of TBI patients seen over a 1-year period in a level-I trauma center in Cameroon. Methods: Data on demographics, causes, injury mechanisms, clinical aspects, and discharge status were prospectively collected over a period of 12 months. The Glasgow Outcome Scale-Extended (GOSE) and the Quality of Life Questionnaire after Brain Injury (QoLIBRI) were used to evaluate outcomes 6-months after TBI. Categorical variables were described as frequencies and percentages. Comparisons between 2 categorical variables were done using Pearson's Chi-square test or Fisher's exact test. Results: A total of 160 TBI patients participated in the study. The age group 15-45 years (78%; 125) was most represented. Males were more affected (90%; 144). Low educational level was recorded in 122 (76%) cases. Road traffic incidents (RTI) were the main cause of TBI (85%), with professional bike riders being frequently involved (27%, 43/160). Assaults (7.5%) and falls (2.5%) represent the second and third most common causes of TBI in Cameroon, respectively. Only 15 patients were transported to the hospital by ambulance, and 14 of these were from a referring hospital. CT-imaging was performed in 78% (125/160) of cases intracranial traumatic abnormality was identified in 77/125 (64%) cases. Financial constraints were the main reason for not performing a CT scan on 35 patients. A total of 46 (33%) patients were discharged against medical advice (DAMA) due to financial constraints. Mortality was 14% (22/160) but disproportionately high in patients with severe TBI (46%). DAMA had poor outcomes with QoLIBRI. Only 4 patients received post-injury physiotherapy services. Conclusion: TBI in Cameroon mainly results from RTIs and commonly affects young adult males, and low educational or socioeconomic status and commercial bike riding appear to be predisposing factors. Lack of pre-hospital care, financial constraints limiting both CT-scanning and medical care, and lack of acute physiotherapy services likely influenced care and outcomes adversely.

**Keywords :** characteristics, traumatic brain injury, outcome, disparities in care, prospective study

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