SCIENTIFIC LETTER

Rotterdam CT Score as a Predictor of Surgical Outcome in Children with Traumatic Brain Injury

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To the Editor: Twenty to 30% of Traumatic Brain Injury (TBI) occurs in children less than 15 y of age with a mortality of 5.26% to 9.25% [1]. The overall outcome can be predicted by clinical and radiological severity using Computed tomography (CT) of brain. We performed a retrospective study on 45 children with TBI to evaluate the utility of the Rotterdam CT score in predicting outcomes.

The Rotterdam CT score, which assesses radiological findings, was utilized in combination with Glasgow Coma Scale (GCS). The collected data included demographics, clinical and radiological findings, and King's Outcome Scale for Childhood Head Injury (KOSCHI) score was used to assess the outcomes. The mean age of children was 10.09 y, predominantly boys and about 67% with mild, 23% with moderate and 11% with severe head injury. The Rotterdam CT score was 3 or less in 85% of children indicating mild to moderate injury. Fifty six percent of children required surgery. Eighty percent of children had good KOSCHI outcome (4 or more). Logistic regression analysis showed Rotterdam CT score was a significant predictor of surgical outcome in pediatric TBI. Higher Rotterdam CT scores were associated with worse outcomes, indicating the value of this scoring system in prognostication. Katar et al. found Rotterdam CT score increases significantly with severity of TBI [2]. Additionally, the study highlighted the effectiveness of decompressive craniectomy in managing refractory intracranial hypertension. By considering both clinical severity and radiological characteristics informed decisions can be made regarding appropriate management strategies [3].

In conclusion, this study contributes to the existing literature on pediatric TBI by emphasizing the importance of a comprehensive approach to prognostication. Along with the role of early decompressive craniectomy, the findings support the use of the Rotterdam CT score as an additional tool for outcome prediction in pediatric TBI cases. The current study needs validation with larger multicentre trials.

Declarations

Conflict of Interest None.

References

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