

Introduction

Traumatic brain injury is the leading cause of morbidity and mortality in children throughout the world .It is associated with long term sequelae including delayed development milestones, emotional, cognitive and social dysfunction.

Methods

It was a retrospective cohort study conducted over a period of 3 and half years at a tertiary care Hospital. We included children < 16 years of age with blunt or penetrating head trauma admitted in Neurosurgery service. Clinical and radiological features, management and outcomes were recorded through review of the medical records. Data was analyzed using SPSS v 17 IBM. Continuous data was presented as means and standard deviation while percentage and proportions were used to present categorical data. Characteristics of non survivors and survivors were compared.

Results

Mean Age of our patients was 7.15 (±5.0) years. Majority of the patients ha minimal head injury (n=120, 41.2%). Critical head injury was seen in 5.8% patients while another 19.5% patients had severe head injury. Fall and traffic accidents were the commonest mechanisms of injury. Mean Marshall Score was2.26 ± 0.95. 30 day mortality was 4.5 % while unfavorable outcomes (Glasgow outcome scale i.e., GOS of 1-2) were seen in 5.5%. GOS, presenting GCS and Delay in arrival were significantly associated with unfavorable outcomes.

Conclusions

Although majority of injuries in children are minimal a significant proportion suffer from severe and critical head injury. Mortality and unfavorable outcomes are significant but comparable to international data

References

1]Alexiou GA, Sfakianos G, Prodromou N. Pediatric head trauma. Journal of Emergencies, Trauma and Shock 2011;4(3):403.

[2]Schoeneberg C, Schilling M, Keitel J, Burggraf M, Hussmann B, Lendemans S. Mortality in severely injured children: experiences of a German level 1 trauma center (2002-2011). BMC pediatrics 2014;14(1):194.

[3]Quayle KS, Holmes JF, Kuppermann N. Epidemiology of blunt head trauma in children in US emergency departments. New England journal of medicine 2014;371(20):1945-7.

[4]Tagliaferri F, Compagnone C, Korsic M, Servadei F, Kraus J. A systematic review of brain injury epidemiology in Europe. Acta neurochirurgica 2006;148(3):255-68.

[5]

[6]Tonks J, Williams WH, Yates P, Slater A. Cognitive correlates of psychosocial outcome following traumatic brain injury in early childhood: Comparisons between groups of children aged under and over 10 years of age. Clinical child psychology and psychiatry 2011;16(2):185-94.

[7]Dinh MM, Bein K, Roncal S, Byrne CM, Petchell J, Brennan J. Redefining the golden hour for severe head injury in an urban setting: the effect of prehospital arrival times on patient outcomes. Injury 2013;44(5):606-10.

Learning Objectives

Injury prevention and proper referral system

1 )can improve the outcome of traumatic brain injury in pediatric age group