Profile of Pediatric Trauma among the Patients Attending Emergency Department in a Tertiary Care Hospital in South India

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Abstract

Background: Pediatric trauma is emerging as an epidemic worldwide; the epidemiology of pediatric trauma is different in different parts of the world. There are very few studies describing the pediatric trauma in developing countries. Objectives: The objectives of this study were to assess the type, mechanism, and extent of trauma among pediatric trauma patients and its association with clinical outcome. Methodology: This was a prospective observational study conducted in the department of emergency medicine and trauma at a tertiary care hospital in South India from September 2015 to March 2017. All children aged <12 years with a history of injuries irrespective of the cause for attending our trauma center were included in the study. Observations and Results: Of the 911 children enrolled, 63.9% sustained injuries at home. The leading modes of injury were fall at level ground (26.9%), road traffic accidents (RTAs) (25.5%), and fall from height (16.8%). Majority of RTA victims were two-wheeler pillion riders (40.5%) and pedestrians (31.9%). Nearly 49% of children had head and maxillofacial injuries. Polytrauma was found in 3.6% of children. Based on the Pediatric Trauma Score (PTS), 72.6% of children had mild trauma and 6.1% severe trauma. Totally, 18.9% of children required inpatient management, 7.5% surgical intervention, and 1.8% expired. Conclusions: Most of injuries in children occurred at home. This was followed by injuries on road. The leading cause of polytrauma was RTA. RTA victims were more likely to have severe injuries and poor outcome. They were more likely to require inpatient management compared to those who fell from height or fell at level ground. Glasgow Coma Scale and PTS may be used reliably to assess the severity of injuries sustained by children.

Keywords: Emergency department, pediatric injuries, pediatric trauma, trauma epidemiology

INTRODUCTION

Pediatric trauma is emerging as an epidemic worldwide. According to the American College of Surgeons’ Committee on Trauma, children comprise up to 25% of all trauma patients. The South-East Asia and the Western Pacific countries accounted for the highest number of pediatric trauma-related mortality worldwide. There are very few studies describing the epidemiology, prevalence, and potential risk factors of pediatric trauma in developing countries. There is an absolute need for a detailed epidemiological study on the morbidity and mortality of pediatric trauma. In India, the data on the number of children injured, hospitalized, and the pattern of injuries are scarce. The National Crime Records Bureau reported that there were 22,766 injury-related deaths in children <14 years. This study is an attempt to describe the mode of injury, pattern of trauma, and the related epidemiology among the pediatric population. The trauma burden, pattern of injury, site of injury, and the outcome vary from region to region and in different age groups. This study was conducted to collect information on various profiles of pediatric injuries presenting to the department of emergency medicine and trauma at our center. Based on these data, it may be possible...
to device strategies and to suggest the government regarding the ways of bringing down the mortality and morbidity due to pediatric trauma.

**Methodology**

This was a prospective observational study conducted in the department of emergency medicine and trauma at a tertiary care hospital in South India from September 2015 to March 2017. All children aged <12 years with a history of injuries irrespective of the cause for attending our trauma center were included in the study. Birth injuries occurring at hospital were excluded. The approval was obtained from the institutional ethics committee of our tertiary care hospital before starting the study. All children and/or their caregivers were interviewed using a pretested questionnaire. Consent was taken from all the children’s parents/guardians before including them in the study. Children with injuries, who were admitted in various departments, were followed up for determining their duration of stay in the hospital and the final outcome. The severity of trauma was classified using the Pediatric Trauma Score (PTS) as follows: severe trauma (PTS <5), moderate trauma (PTS 6–8), and mild trauma (PTS 9–12).[5] Children with head injuries were classified according to the Glasgow Coma Scale (GCS) as follows: severe head injury (GCS 3–8), moderate head injury (GCS 9–12), and mild head injury (GCS 13–15).[6]

**Statistical analysis**

The outcome variables were children managed as outpatients/inpatients/expired/discharged against medical advice. The data were entered into EpiData software (The EpiData Association, Odense, Southern Denmark, Denmark). Analysis of the data was done using EpiData analysis and SPSS version 21 software ((IBM Corporation, Armonk, New York, Westchester). The various types of injuries, the nature, mechanism, severity, and outcome of injuries were expressed in proportions. The various sociodemographic factors associated with pediatric injuries were expressed in proportions. The delay in availing medical service was expressed in mean with standard deviation (in case of normal distribution) and median with interquartile range (in case of nonnormal distribution). The Chi-square test was used to find the association between the children’s parents/guardians before including them in the study. Children with injuries, who were admitted in various departments, were followed up for determining their duration of stay in the hospital and the final outcome. The severity of trauma was classified using the Pediatric Trauma Score (PTS) as follows: severe trauma (PTS <5), moderate trauma (PTS 6–8), and mild trauma (PTS 9–12).[5] Children with head injuries were classified according to the Glasgow Coma Scale (GCS) as follows: severe head injury (GCS 3–8), moderate head injury (GCS 9–12), and mild head injury (GCS 13–15).[6]

**Observations and Results**

A total of 911 children (<12 years) with a history of injury were enrolled during the study period of 18 months. Of them, 621 (68.2%) were boys and 290 (30.8%) were girls [Table 1]. Almost half (n = 459; 49.8%) of the study population belonged to the age group of 1–6 years. The next age group more commonly injured was 6–12 years (39.5%) [Table 1]. Majority of our children (n = 721; 79.1%) were hailing from surrounding districts located within 40 km from our hospital.

| Table 1: Characteristics of pediatric trauma patients |
|-----------------------------------------------------|
| Characteristics of injured children | Number of patients (n=911), n (%) |
| Age group |  |
| <1 month | 8 (0.9) |
| 1 month–1 year | 84 (9.2) |
| 1–3 years | 208 (22.8) |
| 3–6 years | 251 (27.0) |
| 6–12 years | 360 (39.5) |
| Gender |  |
| Male | 621 (68.2) |
| Female | 290 (30.8) |
| Place of injury |  |
| Home | 582 (63.9) |
| Road | 239 (26.2) |
| Farm | 9 (1.0) |
| School | 36 (4.0) |
| Playground | 44 (4.4) |
| Hospital | 1 (0.1) |
| Prehospital transport |  |
| Ambulance | 192 (21.1) |
| Own vehicle | 559 (67.3) |
| Public transport | 101 (11.1) |
| Private transport | 59 (6.5) |

Five hundred and one (55%) children reported directly to our tertiary care hospital, and 310 (42.8%) children had received first aid treatment before reaching our hospital.

**Prehospital transport [Table 1]**

Of 911 patients, 559 (67.3%) used their own vehicles to reach hospital, 192 (21.1%) ambulance services, 101 (11.1%) public transport, and 59 (6.5%) private transport vehicles. The median time taken to reach our hospital was 2.45 h with interquartile range of 0.30 min to 44.40 h. Only 172 (19.0%) children reached within 1 h following trauma, 518 (56.9%) in 1–6 h, 81 (8.9%) in 6–12 h, 59 (6.4%) in 12–24 h, 50 (5.4%) in 1–3 days, 16 (1.8%) in 3–7 days, and 15 (1.7%) after 7 days of trauma. Eighteen (2.0%) children had sustained trauma due to deliberate harm.

**Place of injury [Table 1]**

Majority of children sustained injuries at home (n = 582; 63.9%) and road (n = 239; 26.2%). School and play areas accounted for 8.8% (n = 80).

**Mechanism of injury [Table 2]**

Fall at level ground (n = 245; 26.9%) was the leading mode of injury to the pediatric population. It was followed by road traffic accidents (RTAs) (n = 232; 25.5%), fall from height (n = 153; 16.8%), and burns (n = 82; 9.0%) [Table 2]. Majority of RTAs have occurred when the children were pillion riders in two-wheelers (n = 94; 40.5%), followed by pedestrians (n = 74; 31.9%).

**Pattern of injuries [Figure 1]**

The most common patterns of injuries in children were contusions (n = 277; 30.4%), abrasions (n = 244; 26.7%), and...
lacerations ($n = 239; 26.2\%$). The most common body part injured in children were head, followed by upper limb and maxillofacial injuries [Figure 1]. Bone and joint injuries were noted in 160 (17.4\%) children. The association between place of injury and mode of injury among different age groups is shown in Figures 2 and 3. PTS was used to assess the severity of trauma in children. Most of the injured children had mild trauma ($n = 661; 72.6\%$). One hundred and ninety-four (21.3\%) children had moderate trauma and 56 (6.1\%) had severe trauma.

**Children with head injury**
Glasgow coma scale (GCS) was used to assess the severity of head and maxillofacial injuries. Of 445 children with head and maxillofacial injuries, 409 (91.9\%) had mild head injury, 21 (4.7\%) had moderate head injury, and 15 (3.4\%) had severe head injury. Of 445 children, 245 (55\%) underwent computed tomography (CT) head scan imaging. 51.3\% of children with mild head injury underwent CT head imaging. All children with moderate head injury and 93.3\% of children with severe head injury underwent CT head imaging. Only one child with severe head injury did not undergo CT scan because the child expired before any imaging study. Among 245 children who underwent CT head imaging study, 112 of 245 children (45.7\%) had positive CT scan findings. Among positive CT scan findings ($n = 112$), skull fractures were found in 70\%, extradural hemorrhage in 16.1\%, intracerebral contusion in 15.2\%, pneumocephalus in 8.9\%, diffuse cerebral edema/diffuse axonal injury in 8\%, and subdural hemorrhage in 5.4\%.

**Polytrauma**
The incidence of polytrauma in this study was 3.6\% (33 children). The most common age group involved in polytrauma was 3–6 years ($n = 13$), followed by 6–12 years ($n = 11$) and below 3 years ($n = 9$). Of 33 children, 18 were girls and 15 were boys. The leading mode of injury causing polytrauma was RTA ($n = 23$), followed by fall from height ($n = 6$), fall at level ground ($n = 2$), and blast injuries ($n = 2$). Road was the most common place of injury resulting in polytrauma ($n = 21$), followed by home ($n = 10$), farm ($n = 1$), and playground ($n = 1$). Based on PTS, majority of children had mild trauma ($n = 14$), 12 had moderate trauma, and 7 had severe trauma. One child expired due to polytrauma involving head, chest, and abdomen.

**Burns**
Children who reported with a history of burn were 82 (9.0\%). Scalds were the predominant type of burns ($n = 69; 84.1\%$), followed by thermal burns ($n = 8; 9.8\%$), electric burns ($n = 4; 4.9\%$), and chemical burns ($n = 1; 1.2\%$). Forty five (54.9\%) children had <10% burns, 26 (31.7\%) had 10%–30% burns, and 11 (13.4\%) had >30% burns. Among 82 children with burns, mortality rate was 7.3\% (6 children).

| Mode of injuries                        | Number of patients | Frequency, n (%) |
|----------------------------------------|--------------------|------------------|
| Self fall at ground level              | 245 (26.9)        |                  |
| Road traffic accident                  | 232 (25.5)        |                  |
| Fall from height                       | 153 (16.8)        |                  |
| Burns*                                 | 82 (9.0)          |                  |
| Sports related                         | 31 (3.4)          |                  |
| Heavy object fall                      | 27 (3.0)          |                  |
| Foreign bodies                         | 27 (3.0)          |                  |
| Blast injuries                         | 19 (2.1)          |                  |
| Assaults and abuse                     | 16 (1.8)          |                  |
| Bites and stings                       | 11 (1.2)          |                  |
| Others**                               | 68 (7.7)          |                  |
| Total                                  | 911 (100)         |                  |

*Two victims had sustained burns due to deliberate harm, **Others include injuries such as door trapping injuries, zipper injuries, and accidental hit to stationary objects.
Outcome
In this study, 708 (77.7%) children were treated as outpatients, 104 (11.4%) were admitted and managed nonoperatively, 68 (7.5%) were admitted and required surgical intervention, 16 (1.8%) expired, and 15 (1.6%) were discharged against medical advice. The association between place of injury, mode of injury, transport used to reach hospital, time taken to reach hospital, severity of trauma based on PTS, severity of head injury based on GCS, and short-term clinical outcome is shown in Table 3. For analysis of various factors affecting the outcome, 15 children who were discharged against medical advice were omitted.

Among 911 children, 203 (22.3%) were managed as outpatients by emergency physicians. A total of 708 (77.7%) children required involvement of various specialties for management. Orthopedic surgery was involved in 35.5%, neurosurgery in 30.4%, plastic surgery in 16.8%, and pediatric surgery in 7.9% of children. 644 (70.9%) children were discharged to home within 6 h of arrival to our emergency department, 99 (10.8%) within 6–24 h, 127 (13.9%) were hospitalized for 1–7 days, 35 (3.8%) for 7–30 days, and 6 (0.6%) for more than 30 days.

Mortality
The mortality rate in this study was 1.8% (16 children). Of them, 9 children died due to isolated traumatic head injury, 6 due to burns, and 1 due to polytrauma. Of the 10 children who expired due to nonthermal injuries, RTA was the mode of injury in 6 children, fall from height in 2 children, and heavy object fall on head in 2 children. None of the children with mild trauma expired. The mortality rate among children with moderate trauma \( (n = 194) \) was 1.1% (2 children). The mortality rate among children with severe trauma \( (n = 56) \) was 25.0% (14 children). None of the children with mild head injury expired. The mortality rate among children with moderate head injury \( (n = 21) \) was 9.5% (2 children). The

### Table 3: Association between different variables and short-term clinical outcome

| Variables                              | Outpatient management (%) | Inpatient management (%) | Expired (%) | Total (%) | P     |
|----------------------------------------|---------------------------|--------------------------|-------------|-----------|-------|
| Place of injury                         |                           |                          |             |           |       |
| Home                                   | 472 (82.7)                | 89 (15.6)                | 10 (1.8)    | 571 (100) | <0.001|
| Road                                   | 168 (71.5)                | 61 (25.9)                | 6 (2.6)     | 235 (100) |       |
| School and play areas                  | 65 (81.3)                 | 15 (18.8)                | 0 (0.0)     | 80 (100)  |       |
| Others                                 | 3 (30.0)                  | 7 (70.0)                 | 0 (0.0)     | 10 (100)  |       |
| Mode of injury                         |                           |                          |             |           |       |
| RTA                                    | 163 (71.5)                | 59 (25.9)                | 6 (2.6)     | 228 (100) | <0.001|
| Fall at level ground                   | 219 (90.1)                | 24 (9.9)                 | 0 (0.0)     | 243 (100) |       |
| Fall from height                       | 119 (79.3)                | 29 (19.3)                | 2 (1.3)     | 150 (100) |       |
| Heavy object fall                      | 19 (70.4)                 | 6 (22.2)                 | 2 (7.4)     | 27 (100)  |       |
| Burns                                  | 35 (47.3)                 | 33 (44.6)                | 6 (8.1)     | 74 (100)  |       |
| Assaults and abuse                     | 13 (81.3)                 | 3 (18.8)                 | 0 (0.0)     | 16 (100)  |       |
| Others*                                | 140 (88.6)                | 18 (11.4)                | 0 (0.0)     | 158 (100) |       |
| Vehicle used to reach hospital         |                           |                          |             |           |       |
| Ambulance                              | 96 (52.7)                 | 73 (40.1)                | 13 (7.1)    | 182 (100) | <0.001|
| Private transport                      | 38 (66.7)                 | 19 (33.3)                | 0 (0.0)     | 57 (100)  |       |
| Public transport                       | 76 (76.0)                 | 24 (24.0)                | 0 (0.0)     | 100 (100) |       |
| Own vehicle                            | 498 (89.4)                | 56 (10.1)                | 3 (0.5)     | 557 (100) |       |
| Time taken to reach hospital           |                           |                          |             |           |       |
| <1 h                                   | 158 (92.4)                | 13 (7.6)                 | 0 (0.0)     | 171 (100) | <0.001|
| 1-6 h                                  | 398 (77.9)                | 101 (19.8)               | 12 (2.3)    | 511 (100) |       |
| 6-12 h                                 | 53 (67.1)                 | 26 (32.9)                | 0 (0.0)     | 79 (100)  |       |
| 12-24 h                                | 48 (81.4)                 | 11 (18.6)                | 0 (0.0)     | 59 (100)  |       |
| 1-3 days                               | 39 (79.6)                 | 8 (16.3)                 | 2 (4.1)     | 49 (100)  |       |
| 3-7 days                               | 8 (53.3)                  | 6 (40.0)                 | 1 (6.7)     | 15 (100)  |       |
| >7 days                                | 4 (33.3)                  | 7 (58.3)                 | 1 (8.3)     | 12 (100)  |       |
| Severity of trauma based on PTS        |                           |                          |             |           |       |
| Mild trauma                            | 566 (86.5)                | 88 (13.5)                | 0 (0.0)     | 654 (100) | <0.001|
| Moderate trauma                        | 127 (67.2)                | 60 (31.7)                | 2 (1.1)     | 189 (100) |       |
| Severe trauma                          | 15 (28.3)                 | 24 (45.3)                | 14 (26.4)   | 53 (100)  |       |
| Severity of head injury based on Glasgow Coma Scale | | | | | |
| Mild head injury                       | 362 (88.9)                | 45 (11.1)                | 0 (0.0)     | 407 (100) | <0.001|
| Moderate head injury                   | 8 (38.1)                  | 11 (52.4)                | 2 (9.5)     | 21 (100)  |       |
| Severe head injury                     | 0 (0.0)                   | 7 (46.7)                 | 8 (53.3)    | 15 (100)  |       |

RTA: Road traffic accident, PTS: Pediatric Trauma Score
mortality rate among children with severe head injury (n = 15) was 53.3% (8 children).

**Discussion**

In this prospective observational study of pediatric trauma from a center in South India, we found that almost half the children were below 6 years of age, most children sustained trauma at home, and RTAs were the most common cause of polytrauma with poor outcome. This information has important bearing for the prevention of pediatric trauma.

This study was designed to assess the type, mechanism, and intent of pediatric trauma and to assess the short-term clinical outcome and its association with the trauma profile in children [Table 3]. A total of 911 children were recruited for this study. The male: female ratio was observed to be 2.1:1. Various studies at different regions of the world also observed that males outnumbered females.\(^1,7-9\) In our study, the most common age group of injured children was 1–6 years. A study done in Madhya Pradesh reported that 52% of the injured children belonged to the age group of 6–12 years. The mean age of presentation in their study was 6.3 years.\(^7\) The mean age of presentation was 6 years in another study done in Turkey.\(^9\) The median age was 9 years and 3 months (range 5 weeks – 15 years and 9 months) in an Australian study.\(^1\)

A majority of children in this series sustained injuries at home. Most of others sustained RTAs. This was similar to the previous studies done in different regions of the world.\(^1,7,10,11\) Fall at level ground was the leading mode of injury, followed by RTAs, fall from height, and burns. Various studies from different regions of the world also reported that falls were the predominant mode of injury followed by RTAs.\(^1,9,12,13\) On the other hand, a study from New Delhi reported that RTAs was the most common mode of injury followed by falls and burns.\(^8\) Another study done in Madhya Pradesh reported that fall from height was the leading mode, followed by RTAs and burns.\(^7\) A majority of victims of RTAs in our study were two-wheeler pillion riders followed by pedestrians. In two different Indian studies, the results were contradicting in that most of the victims of RTAs were pedestrians, followed by two-wheeler pillion riders.\(^7,8\) Fall from height was the third common mode of injury following fall at level ground and RTAs in our study. In a study done in Western Iran, the authors observed that fall from height was the most common mode of injury followed by RTAs in children.\(^10\)

PTS was used to assess the severity of trauma in our study population. Most children had mild trauma and presented with contusions, abrasions, and lacerations. Majority of the injured children had sustained head and maxillofacial injuries. A study from Turkey also reported that head injury was the most common site of injury in children.\(^9\) Other studies from India, Western Iran, and Australia in contrast reported that orthopedic injuries were the most common in children followed by head and abdominal injury.\(^1,7,10\) Of all 911 children, 26.9% underwent CT head scan. Skull fractures were the most common CT scan findings, followed by extradural hemorrhage and intracerebral contusions. Only 2.0% of children with head and maxillofacial injuries were managed surgically. In an Australian study, 47% of injured children underwent CT head imaging.\(^1\)

The incidence of polytrauma in this study was 3.6%. The leading cause of polytrauma was RTA. A single-center study from New Delhi reported that polytrauma accounts for 25.7% of pediatric injuries.\(^11\) Scalds were the predominant type of burns in our study population, followed by thermal burns. Two different studies from New Delhi and Madhya Pradesh also agreed that scalds were more predominant in children than thermal burns.\(^7,14\)

The mortality rate was 1.8% in our study. A study from New Delhi reported a mortality rate of 5.6%.\(^8\) Two other studies from Madhya Pradesh and New Delhi reported that RTAs were the most common mode, followed by burns and fall from heights.\(^7,11\) In our study, 22.3% of children were managed by emergency physicians. Orthopedic surgery and neurosurgery were the most common specialties involved in managing pediatric trauma. In the Western Iran study, the authors also agreed that orthopedic surgeons and neurosurgeons were involved more in the management of pediatric injuries.\(^10\)

The factors such as place of injury, mode of injury, severity of trauma based on PTS, severity of head injury based on GCS, transport used to reach hospital, and time taken to reach hospital were significantly associated with the short-term clinical outcome (\(P < 0.001\)) [Table 3]. This implies that RTA victims were more likely to sustain severe injuries compared to fall from height and fall at level ground victims. Ambulance transported higher number of severely injured children compared to other modes of transport and hence the higher mortality. Inan et al. also agreed that mortality was higher with severe trauma based on PTS.\(^15\) In a study from Turkey, no correlation was found between PTS and mode of injury.\(^9\)

In infants, fall from height was the leading mode of injury. The incidence of burns was higher in toddlers. RTAs occurred more common in school-going children. It is needless to say that prevention is always better than cure. These injuries in children could have been prevented by simple precautionary measures. Injuries sustained due to fall at level ground could have been avoided by adequate supervision by parents, building a safe environment for children and establishing standards for playgrounds.\(^14,16\) RTA-related morbidity could have been largely avoided through usage of motorcycle and bicycle helmets, appropriate child restraints, seat belts, air-bags, restricting underage driving, avoiding children to be seated over two-wheeler petrol tanks, and by reducing the speed around residential and play areas. Pediatric injuries due to fall from height could have been restricted by implementing window guards, covered balconies, roof railings, guard rails, and stair gates. Burns in children could have been circumvented by separating cooking areas from living areas, avoiding floor-level cooking, avoiding boiling of milk in large pots over

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**Table**

| Injury Type | Frequency |
|-------------|-----------|
| Scalds      | 26.9%     |
| Burns       | 22.3%     |
| RTAs        | 3.6%      |
| Head Injury | 47%       |
| Abdominal   | 2.0%      |

**Source**

1. Raju et al. 2020. Profile of pediatric trauma in South India. Journal of Emergencies, Trauma, and Shock. Volume 13, Issue 1, January-March 2020.
low stoves, removing kerosene lamps from households, and greater parental/caregivers’ supervision.\cite{14,17}

It is important to enact laws to mandate use of compulsory child seat with seat belts and pediatric helmets and giving priority to pedestrians and bicyclists. Pedestrian safety education can result in improvement of children’s knowledge and help in changing observed road crossing behavior. Imposition of laws that establish a lower legal limit for blood alcohol content may reduce the RTAs. More such studies are required in India to sensitise the authorities to enact laws to decrease the mortality and morbidity of young children. Education about safe practices in RTAs and falls can be included in school curriculum to reduce the burden of pediatric trauma in India.

Limitations
As this is a single-center study, the results may not reflect the real magnitude of pediatric trauma in the population. Pediatric medical emergencies are managed separately by the pediatric emergency department situated in our hospital. Hence, epidemiology of poisoning and drowning in the pediatric population was not included as a part of this study.

Conclusions
This study was undertaken to assess the type, mechanism, and intent of pediatric trauma and to assess the short-term clinical outcome and its association with the trauma profile in children. Most of injuries in children occurred at home. This was followed by injuries on road. Self-fall at ground level was the leading mode of injury, followed by RTAs and fall from height. The leading cause of polytrauma was RTA. RTAs were more likely to be of severe nature. The victims of RTAs were more likely to get admitted and undergo surgical intervention compared to those who fell from height or fell at ground level. Scalds were the predominant type of burns in children. Glasgow Coma Scale and PTS may be used reliably to assess the severity of injuries sustained by children. To minimize the burden of pediatric trauma in India, it is essential to make home, road, school, and the surrounding environment child-friendly in combination with greater supervision by caregivers.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

Article Summary
1. Why is this topic important?
   With increasing trend in pediatric trauma, it is vital to describe the epidemiology in developing countries which may help in improving preventive strategies.

2. What does this study attempt to show?
   This study shows various mechanisms by which children most commonly get injured. The mode of injury has been associated with severity and clinical outcome, which further emphasises the need to implicate child safety measures.

3. What are the key findings?
   Majority of children got injured at home; which reflects the poor monitoring attitude of present day caregivers. Severe injuries were sustained in road traffic accidents. Head injury was the most common in our study population.

4. How is patient care impacted?
   Due to increasing burden of pediatric trauma in our country, implementing and improving pediatric trauma centres and child safety measures play a huge role in patient care.

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