Paediatric trauma at district hospital

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Abstract: To examine the pattern of injuries affecting children in Garhabuali region of Libya. The analysis is based on patient seen into the main referral hospital in this region, categorizing by age groups, causes of trauma and system affected. All patients aged up to 16 years who were seen at Garhabuali district hospital for various traumas during the period of August, 2007 to June, 2009. The main outcome measures morbidity and mortality relating to modes of trauma. The number of patients was 2340 seen in the casualty: 81% male and 19% female, 24.24% were under 5 years of age; 20.8% in the 5-8 years age group; 26.3% in the 9-12 years age group and 28.0% in the 13-16 years age group. The most common cause of injury is fall down 37.2% followed by sport related injury 11.5%. Seventy-three percent transferred to other trauma centers or hospitals. In conclusion, many traumas to which children are vulnerable comes great morbidity and mortality, these traumas are preventable, by planned extended intensive treatment and education. The recommendations included increase use of standardized regime for treatment such as the advanced trauma life support system (ATLS) and improvement in the pre hospital care.

Keywords: Pediatric trauma, injuries, children, Libya

Introduction

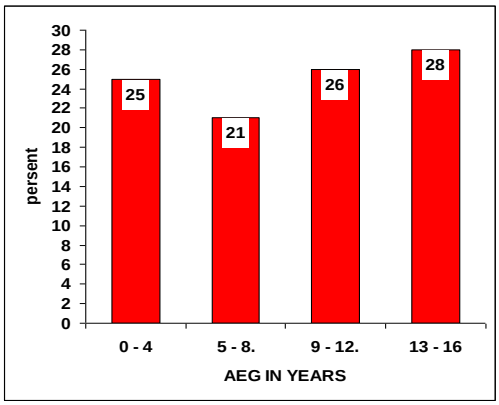
Trauma is one of the main causes of death in people under the age of 35 years worldwide (1). In 1983, the death rate on the road in the Gulf countries was 37 per 100,000 populations, compared with 21 per 100,000 populations in USA (2, 3). Trauma is a huge problem in the developed world (2); modern trauma care consists of three primary components: pre hospital care, acute surgical care or hospital care, and rehabilitation (3). Trauma constitutes the greatest indication for emergency admission of children in some hospital (4). This retrospective study is hospital - based, and is a reflection of the pattern of Injuries affecting the region's children.

Materials and methods

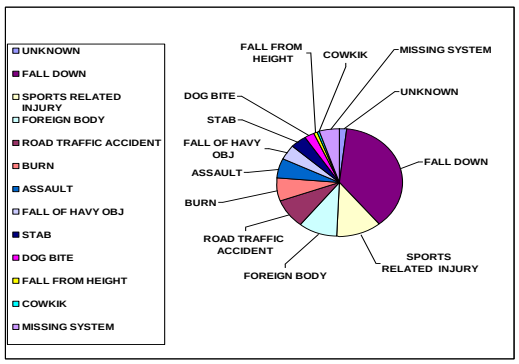
All patients aged up to 16 years who were seen into the Garahabuli district hospital for various traumas during the period between August, 2007 to July, 2009, were analyzed. Data were obtained from the hospital records. During the two years period, 1638 children 19% female and 81% male were seen for various forms of trauma. The ages of the patients have been categorized into four groups: under 5 years, 5-8 years, 9-12 years and 13-16 years. The cause of trauma was classified into road traffic accident, falls, sports related, foreign body, and other causes of trauma.

Results

There were 24.5% in the under 5 year's age group, 20.9% in the 5-8 years age group, 26.5% in the 9-12 years age group and 28.1% in 13-16 years age group bar chart 1.

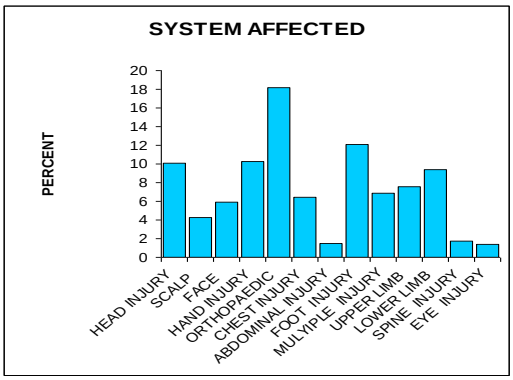


Falls were the common cause of trauma (fall down, fall from height and fall of heavy object) 42.3%, 37.2% fall from height only, followed by sports related injury 11.5%, foreign body 9.9%, road traffic accident 8.3% and the remaining 18% were due to other causes of trauma, shown in pie chart 1 more in details.



Of the18% of other causes of trauma, burns 7.1%, assault 5.9%, stab 4.3% dog bite 2.4% and cow kick 0.8%. There were no cases of air gum injuries. There were no significantly marked seasonal variations in incidences. The records did not indicate any trauma attributed to child abuse. The fall down was more common below 5

years (36.2%) while in the age group between 5-8 (24.5%). 76.2% of road traffic accidents occurred in the age group of 5-12 years old. Soft tissue limb injury was the most common system affected (19.4%) followed by orthopedic trauma was 19.0% foot injury was 17.4%; hand in injury 12.3%, head injury seen in 9.9%. The least common injury affected abdominal was 0.8% as shown in bar chart 2.



About 8% of the cases treated by surgery in the hospital while 20.9% transferred to other hospital or trauma centre, most of the cases transferred due to fractures and head injury.

Morbidity was related to the severity of the injury, the degree of brain affection, and involvement of multiple systems. Most of the cases were managed in the casualty, only 20.9% were transferred. There were 13 deaths, most of the cases (8) died before arrival to the hospital, others 3 died within few minutes of arrival in the hospital, the rest 2 died during transfer to other hospitals. These were system injuries chest injury, electric shock and the rest due to other injury.

Discussion

The treatment of trauma requires organized clinical service (4). Per hospital care and rehabilitation are also problem that need to be solved (3) efforts could be made to improve the skills a primary board (the Board of Emergency and acute care surgery). Most previous reports have shown the high cost involved in treatment of accident victims (1). Efforts are continuously being made to prevent road accidents by various safety measures and education. Play by children can be controlled by sustained caution by parents and avoid playing beside the road. As well as the use of seat belts, the appropriate position of the child in the vehicle is important. The incidence of underage drivers need to be controlled scalds in forts are in variably attributed to care less by adults. This study confirms the mortality from road traffic accidents noted in previous studies. Moreover, it shown the cross morbidity due to falls in children.

Analysis of the mechanism of trauma shows that these are prevented able. Intensive public education to sensitize the population to safety procedures will reduce in injury, and minimize the socioeconomic burden incurred in the management of the injured child. Most of the trauma patients have improved survival if transferred directly to a trauma centre, compared with treatment at a local hospital prior to transfer (4). The current implementation of emergency medical service provision in UK is such that the majority of trauma patients (75%) are secondarily transferred to a trauma center after adequate resuscitation and stabilization (3).

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