



Original Article

**REPORTING OF TRAUMA CASES IN
EMERGENCY DEPARTMENTS OF
DIFFERENT HOSPITALS**

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ABSTRACT:

Globally, the number of injury deaths increased by 24% in the last decade. Each year trauma accounts for forty one million accident emergency department visits and in 2014, 2.3 million traumas related hospital admissions are recorded across the United States. This cross-sectional study was conducted in emergency departments of different hospitals. The data of all the trauma cases presenting in the emergency departments for a period of one month were collected. A total of 302 cases were reported during this time. These 302 cases

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were divided into different groups according to the cause of trauma i.e. 103 (34.11%) had motorbike accident, 69 (22.85%) had car accidents, 45(14.90%) had history of fall from certain objects, 36 (11.92%) suffered trauma due to fights, 21(6.95%) had trauma during operating machinery. Out of 302 cases, eighty-five patients (28.15%) presented in serious condition and 217 (71.85%) cases presented with mild to moderate injuries.

Keywords: Trauma, Accidents, Emergency

INTRODUCTION:

Globally, the number of injury deaths increased by 24% in the last decade (1). Each year trauma accounts for forty one million accident emergency department visits and in 2014, 2.3 million traumas related hospital admissions are recorded across the United States. Trauma injury in the United State accounts for about 30% of all life years lost, Cancer related deaths accounts for 16% and cardiopulmonary disease accounts for 12% in US. Death from cancer, cardiopulmonary disease and HIV combined is equal to deaths from impact of trauma because individual of all ages are affected by trauma. 3rd leading cause of death is trauma as it occurs in all age groups and it is found that in young age mortality rate is exceptionally high (2). Major trauma is any injury



that has the potential to cause prolonged disability or death. There are many causes of major trauma, blunt and penetrating, including falls, motor vehicle collisions, stabbing wounds, and gunshot wounds. Depending on the severity of injury, quickness of management, and transportation to an appropriate medical facility (called a trauma center) may be necessary to prevent loss of life or limb. The initial assessment is critical, and involves a physical evaluation and also may include the use of imaging tools to determine the types of injuries accurately and to formulate a course of treatment. In 2002, unintentional and intentional injuries were the fifth and seventh leading causes of deaths worldwide, accounting for 6.23% and 2.84% of all deaths. For research purposes the definition often is based on an injury severity score (ISS) of greater than 15 (3-5).

Injuries may be caused by any combination of external forces that act physically against the body. The leading causes of traumatic death are blunt trauma, motor vehicle collisions, and falls, followed by penetrating trauma such as stab wounds or impaled objects. Subsets of blunt trauma are both the number one and two causes of traumatic death. Injuries are classified as either intentional such as suicide, or unintentional, such as a motor vehicle collision. Intentional injury is a common cause of traumas. Penetrating trauma is caused when a foreign body such as a bullet or a knife enters the body tissue, creating an open wound. In the



United States, most deaths caused by penetrating trauma occur in urban areas and 80% of these deaths are caused by firearms. Blast injury is a complex cause of trauma because it commonly includes both blunt and penetrating trauma and may be accompanied by a burn injury. Trauma also may be associated with an activity, such as an occupational or sports injury (3, 6, 7).

MATERIAL AND METHODS:

This cross-sectional study was conducted in emergency departments of different hospitals. The data of all the trauma cases presenting in the emergency departments for a period of one month were collected. Name, age, gender, reason of trauma and fate of patients i.e. recovery or mortality was noted. All the data was entered and analyzed in Microsoft excel sheet.

RESULTS:

A total of 302 cases were reported during this time. These 302 cases were divided into different groups according to the cause of trauma i.e. 103 (34.11%) had motorbike accident, 69 (22.85%) had car accidents, 45(14.90%) had history of fall from certain objects, 36 (11.92%) suffered trauma due to fights, 21(6.95%) had trauma during operating machinery and 28 (9.27%) suffered due to other causes i.e. bus accident, rikshaw accident, intentional injury etc. Out of 302 cases, eighty-five patients (28.15%) presented in serious condition



and 217 (71.85%) cases presented with mild to moderate injuries. Out of 85 patients presenting with serious injuries, 27 (31.76%) were died in the emergency within an hour of reporting. Twenty-three (27.06%) patients were admitted to ICU after management and out of them 18 (21.18%) died at the end.

DISCUSSION:

Trauma, including one-time, multiple, or long-lasting repetitive events, affects everyone differently. Some individuals may clearly display criteria associated with posttraumatic stress disorder (PTSD), but many more individuals will exhibit resilient responses or brief subclinical symptoms or consequences that fall outside of diagnostic criteria. The impact of trauma can be subtle, insidious, or outright destructive. How an event affects an individual depends on many factors, including characteristics of the individual, the type and characteristics of the event(s), developmental processes, the meaning of the trauma, and sociocultural factors (4, 5, 8, 9).

Trauma deaths occur in immediate, early, or late stages. Immediate deaths usually are due to apnea, severe brain or high spinal cord injury, or rupture of the heart or of large blood vessels. Early deaths occur within minutes to hours and often are due to hemorrhages in the outer meningeal layer of the brain, torn arteries, blood around the lungs, air around the lungs, ruptured spleen, liver



laceration, or pelvic fracture. Immediate access to care may be crucial to prevent death in persons experiencing major trauma. Late deaths occur days or weeks after the injury and often are related to infection. Prognosis is better in countries with a dedicated trauma system where injured persons are provided quick and effective access to proper treatment facilities. Long-term prognosis frequently is complicated by pain; more than half of trauma patients have moderate to severe pain one year after injury. Many also experience a reduced quality of life years after an injury, with 20% of victims sustaining some form of disability. Physical trauma may lead to development of post-traumatic stress disorder (PTSD). One study has found no correlation between the severity of trauma and the development of PTSD (3, 6, 8, 9).

REFERENCES:

1. Fayyaz J, Wadhvaniya S, Shahzad H, Feroze A, Zia N, Mir MU, et al. Pattern of fall injuries in Pakistan: the Pakistan national emergency department surveillance (Pak-NEDS) study. *BMC emergency medicine*. 2015;15(2):1-7.
2. Minhas MS, Muzzammil M, Effendi J, Jahanzeb S, Bhatti A. Prevalence and Nature of Trauma and Injuries in Karachi National Trauma Registry of Pakistan – The Need of the Hour. *Journal of Pakistan Orthopaedic Association*. 2017;29(03):80-5.
3. Delahanty DL, Raimonde AJ, Spoonster E, Cullado M. Injury severity, prior trauma history, urinary cortisol levels, and acute PTSD in motor vehicle accident



victims. *Journal of anxiety disorders*. 2003;17(2):149-64.

4. Singh A, Tetreault L, Kalsi-Ryan S, Nouri A, Fehlings MG. Global prevalence and incidence of traumatic spinal cord injury. *Clinical epidemiology*. 2014;6:309.

5. Taubman-Ben-Ari O, Rabinowitz J, Feldman D, Vaturi R. Post-traumatic stress disorder in primary-care settings: prevalence and physicians' detection. *Psychological medicine*. 2001;31(3):555-60.

6. Champion HR, Copes WS, Sacco WJ, Lawnick MM, Keast SL, FREY CF. The Major Trauma Outcome Study: establishing national norms for trauma care. *Journal of Trauma and Acute Care Surgery*. 1990;30(11):1356-65.

7. Lowe DK, Gately HL, Goss JR, Frey CL, Peterson CG. Patterns of death, complication, and error in the management of motor vehicle accident victims: implications for a regional system of trauma care. *The Journal of trauma*. 1983;23(6):503-9.

8. Baker CC, Oppenheimer L, Stephens B, Lewis FR, Trunkey DD. Epidemiology of trauma deaths. *The American Journal of Surgery*. 1980;140(1):144-50.

9. Krystal H. Trauma and affects. *The psychoanalytic study of the child*. 1978;33(1):81-116.