

# Two Years' Study of Pattern and Frequency of Fatal Injuries

Pages with reference to book, From 313 To 314

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## Introduction

According to section 44 Pakistan Penal Code (PCC) an injury is defined as “any hann whatsoever illegally caused to any person in body, mind, reputation or property. Injury caused by physical violence to the body are known as mechanical injuries.” All wounds are injuries but all injuries are not wounds<sup>1</sup>. When examining a dead body with injuries, special stress should be given on recording the following aspects:

Type and location of the injury on the body, number, dimensions, shape, edges, direction and depth of the wound, manner of causation of the injury, types of the external and internal injuries, whether homicidal, suicidal, accidental, defence or fabricated, foreign bodies attached: metal, glass, soil, hair<sup>2</sup> and evidence of the time of infliction of the injury.

From practical point of view injuries may be divided into 4 major groups: Blunt injuries which include abrasions or scratches, contusions or bruises and lacerations. Sharp edged and pointed weapon injuries, which include incised and stab wounds which may be penetrating or perforating. Firearm injuries and finally explosives and thermal injuries, which are due to burns, electrocution and lightening.

## Material, Methods and Results

The study was carried out on 1311 bodies brought to the mortuary of Sindh Medical College 1-1-96 to 31-12-97. It included a detailed examination of the dead bodies soon after they were received, review of the injuries reported in the police report and a detailed postmortem examination. Special stress was made to record the location, source and pattern of external injuries alongwith their internal findings so as to confirm that the concerned external injury findings were sufficient to cause death in the ordinary course of nature. Dissection procedures were used according to the location and nature of the injury. For ethical reasons names, initials and medicolegal number of the deceased are not given. One thousand three hundred and eleven cases were studied. Fire arm injuries were the commonest followed by road traffic accidents (Table I).

Table I. Types of injuries.

Type of injuries	No.	%
Firearm injuries	502	38.3
Road traffic accidents	387	29.5
Asphyxia	98	7.5
Train accidents	89	6.8
Fall from heights	68	5.2
Sharp edged weapons	58	4.4
Electrocution	52	4.0
Hard blunt weapons	32	2.0
Explosives	17	1.3
Burns	8	0.6

The head and chest were the main sites of injuries (Table II).

Table II. Type, location and frequency of fatal injuries.

Type	Total No.	Location and frequency
Firearm injuries	502	Head (201), Chest and Abdomen (49), Chest (238), Face/Neck (14)
Road Traffic accidents	387	Head (288), Chest (38), Chest and Abdomen (23), Polytrauma (29)
Asphyxia	98	Drowning (42), Hanging (26), Throttling (12), Strangulation (11), Traumatic i.e., building collapse (7)
Train accidents	89	Polytrauma (61), Head/Decapitation (27), Chest (1)
Fall from height	68	Head (42), Polytrauma (26)
Sharp edged weapon injuries	58	Chest i.e., heart and lungs (23), Cut throat (18), Chest and Abdomen (13), Head (4)
Electrocution	52	Hand and Sole of foot (48), No external injury (4).
Hard blunt weapon injuries	32	Head (23), Chest (7), Abdomen (2)
Explosives	17	Polytrauma (17)
Burns	8	Face, Chest, Abdomen (8)

Five hundred and two dead bodies had Firearm injuries, out of which 98% were from automatic and semi-automatic rifled firearms (rifles and pistols), only in 2% of suicidal cases shot guns and revolvers were used. With the help of findings of contact fire i.e., collar of abrasions, everted margins of wound of entry or very close range fire by seeing singeing, blackening and inversion of the wounds of inlet

and in some cases fibres of the clothes being worndrawn into the wound of entry with the help of magnifying glass were helpful. In mad traffic accidents history of RTA, the condition of clothes, staining with grease and mud and finding of different types of blunt injuries and in some cases radiator imprint abrasions, impression of the wheels of the vehicle were sufficient evidence of RTA. Typical findings of asphyxial deaths were seen in nearly all the cases e.g., pattern of ligature marks, distribution of Tardieu's spots except in cases of drowning and presence of copious amount of froth at the mouth and nostrils in cases of drowning. In deaths due to sharp edged weapons it was easy to make out the nature of the weapon by examining the various dimensions of the wound and their location in relation to some vital part of the body such as carotid arteries and jugular veins in cut throat. Stab wounds corresponding over the areas of heart and lungs and in cases of multiple stabs we could even make out which was the first stab by examining the margins which appeared neat and clean with little or no blood as compared to subsequent stabs. In cases where clothes were worn by the deceased the corresponding cut marks were of vital significance.

The location of injuries caused by blunt weapons especially over bony prominences was easy. In some cases where lacerated wounds looked like incised wounds especially over the head, help of magnifying glass was used. In deaths due to explosives, burns alongwith lacerated wounds due to pieces of explosives and masonry debris were sufficient for identification. In case of burns, the degree and percentage of burns was calculated according to Wallace "Rule of nine". In deaths due to electrocution wounds showed contactor spark burns or electrical necrosis and metal deposition while wounds of exit showed splitting of the skin with everted margins.

## **Comments**

It is interesting to note that Medicine and Law are closely linked, both serving the public. During practice every doctor should remember that at some time or other, one of his injury cases, however insignificant and minor the injury may seem, may assume medicolegal importance. Moreover, the doctors working on medicolegal side should always evaluate the injury both externally and internally before labeling it as sufficient to cause death individually in the ordinary course of nature. The police report should not be relied upon and if any discrepancies appear they should be clearly mentioned in the postmortem report. Moreover, visit to the scene of the crime, if possible, can also provide valuable information from the circumstantial evidence.

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