

Deaths Due to Firearm Inflictions in Bahawalpur City- A Retrospective Study

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Firearms are the weapons responsible for increasing number of violent deaths in our society and such fatalities require thorough medico legal study. A retrospective study was conducted to elicit the firearm inflictions resulting in deaths of the persons in Bahawalpur. Total 214 autopsies were carried out in between the period of 01-01-97 to 13-12-1999 in which 76 cases were of firearm inflictions. 88.3% cases were of homicidal in nature, 6.9% of accidental and 4.6% of suicidal in nature. In most of the cases the regions involved were trunk and head.

Key words: Firearms, autopsies, deaths medicolegal

Gun related deaths are common throughout the world. In the United States, gunshot wounds rank among the leading causes of death. Approximately 25,000 persons die every year in the United States from injuries caused by firearms¹. Gunshot fatalities comprise a large fraction of deaths that require a thorough medico legal study. Injuries produced by firearms present complex characteristics, the recognition and interpretation of which are vital in reconstructing the circumstances of a shooting episode. In un-witnessed shootings and in cases where conflicting testimony obscures the truth medical evidence may be the only key to correct solution².

In a case in which death has resulted from gunshot wounds, examination of the scene helps to determine whether the death was accidental, suicidal or homicidal. But unfortunately it is not practiced in our society that the examination of scene of crime should be done by the medical examiner. To determine the cause of death at autopsy, is of course fundamental but the circumstances surrounding the fatal acts is often more useful in the administration of justice. Answers to the following questions should be sought when the Medico legal Autopsy of a victim of gunshot injury is undertaken. Was the wound produced by a bullet? Was a particular wound, an entrance or an exit wound? From what direction was the shot fired? What kind of weapon (firearm) was used. What kind of ammunition was used? How far was the gun from the victim when the shot was fired? Could the injury have been self-inflicted. The answer to these questions depends entirely upon the examination of the body and clothing of the victim³. To describe the frequency and outcome of injuries due to firearm, this study was conducted in the city of Bahawalpur.

Material and Methods

According to census of 1998 the population of Bahawalpur city was 403408. A retrospective study was conducted on a total of 214 male and female dead persons, reported to be died by un-natural means over a period of 03-years (01-01-97 to 31-12-97) at Bahawalpur city, in which 86 persons died due to firearm weapons. Doubtful cases about the cause of death were not included in the study.

The accidental inflictions were included on the history given by the persons related to the deceased. All the cases were studied thoroughly regarding their manners and the region of the body involved by firearms. The analysis was made from autopsy reports.

Results

The deaths due to firearms were more in rural populations 58% than in urban areas 42% (Table-I). Out of total 214 deaths 86 persons died due to firearms inflictions. This gives a frequency of 21.3 per 100000 population. Number of homicidal deaths were 76 (88.3%), accidental deaths were 06 (6.9%) and the number of suicidal deaths were 04 (4.6%) (Table-II). The study revealed that the regions of the body involved mostly were the trunk and head (Table-III).

Table-I: The habitat of the gunshot victims was as under:

| Distributions | Nos. | %Age |
|---------------|------|------|
| Urban | 36 | 42 |
| Rural | 50 | 58 |

Table-II: Distribution of cases according to manner of deaths.

| Distribution | Nos. | % Age |
|--------------|------|-------|
| Homicidal | 76 | 88.3 |
| Accidental | 06 | 6.9 |
| Suicidal | 04 | 4.6 |

Table-III: The distribution of injuries on the body of deceased

| Region Involved | Nos. |
|-----------------|------|
| Trunk | 43 |
| Head | 38 |
| Limbs | 25 |
| Neck | 19 |

Discussion

Mortality from firearms depends not only on the technology of the weapon or its ammunition but also on the context in which it is used⁴. The results of our study in which the rate of deaths due to firearms inflictions was 21.3 per 100000 persons and was more in rural areas than in urban areas agrees with the study of Canada in which

more deaths from gunshot wound were occurring in rural areas than cities and rates of mortality from gunshot wounds varies among provinces and territories ranging from 5.72 to 21.2 per 100000 people⁵ (Table-I). This study was in contradiction with the study of Saudi Arabia (Eastern Province) during the 10 years period 1985-94 in which the over all firearm cases were 0.35 per 100000 populations⁶ which was very low. This is because of the fact that generally the crime ratio is very low in Saudi Arabia due to Islamic laws and there proper implementation. There is total control on keeping the fire arms by civilians in that country.

The manners of the deaths due to firearms in this study were in accordance with the study of three cities Memphis, Tennessee; Scattle and Galveston in which 88% of the injuries were incurred during confirmed or probable assaults, 7% were sustained in the course of suicide and unintentional injuries accounted for 4% of the cases⁷. While study of Saudi Arabia was in contradiction with this study where 48% were homicides, 28% were suicides and 24% were of accidental⁶ in nature. Low homicidal ratio is because of the same fact that fire arms are not so freely available in that society but there high suicidal and accidental ratio revealed the illiteracy of the population and the class discrimination among the rich and poor.

According to the distribution of injuries on the body most of the injuries were on trunk and head as these are the most exposed and vulnerable parts of the body for firearm

inflictions. This is again in accordance with the study of Saudi Arabia in which the most victims were shot in the chest 41% or the head 34%⁶.

Firearm violence has reached on alarming level in our region. The devastations that results from firearm has severe implications for the individual and society. Prevention is the key to reduce firearm violence through awareness, education and legislation.

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