

Spectrum of Firearm injuries in district Quetta

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ABSTRACT

Aim: To determine pattern, age, gender, body region involved in firearm victims brought to the Medicolegal Department of Sandeman (Prov) Hospital Quetta.

Design: Observational Descriptive Study

Duration of study: One year

Methods: The study was conducted in Central Park Medical College, Lahore based on the data of firearm cases of the year 2002, collected from the medicolegal department of Sandeman (Prov) Hospital Quetta.

Results: Out of 309 victims the most frequent cases of firearm found in the age group of 21-30 years, and 31-40 years, 115(37.2%) each and 2nd most common age group was 41-50 years 35(11.3%) , and in 3rd most common group was 11-20 years 22(7.1%) which is followed by 51-60 years 15(4.9%). A least pattern above 60 years age group contained only 5 cases (1.6%) and the very least number of cases 2(0.6%) in 0-10 years group was found.

Conclusion: The victims of firearm injuries were young people aged between 20-40 years and most common region involved was Thorax and frequent organ injured was lungs.

Keywords: Firearm injury, medicolegal

INTRODUCTION

Firearm deaths and injuries have severe and far-reaching effects on communities. The costs of firearm deaths and injuries per person have been estimated to be the highest of any injury¹. Firearm Injuries are commonly encountered and a major health problem that severely affects the criminal justice and health-care systems². Over the year, firearm injuries have experienced global³ episodes of epidemic and endemic nature, particularly in the USA⁴, South Africa⁵, Italy⁶, Finland⁷ and South Asia⁸. Pakistan is not far behind from developed countries due to its tribal culture and borders with Afghanistan. Almost all kinds of weapons are manufactured in tribal areas, moreover smuggling from Afghanistan and due to heavy influx of refugees (more than 3 million), all kinds of latest sophisticated weapons are available throughout Pakistan without much control⁹. In view of the need to control and decrease illegal trafficking of firearms, the United Nations crime prevention and justice commission recently passed a resolution encouraging all countries to strengthen their domestic gun control. Since weak control in one country can

affect the security in others⁹. There were a gap between the trends and result which were on medical record, so this study was planned to determine the pattern, age, gender, number and location of firearm injuries in Firearm victims brought to the medicolegal department of Sandeman (Prov) Hospital Quetta during the year 2002.

MATERIALS AND METHODS

The study was conducted in Central Park Medical College, Lahore and data of all firearm fatalities, were collected from the medico legal department of the Sandeman (Prov) Hospital Quetta and data collected during the period from January 2002 to December 2002. Our study was attempted to define the circumstances, motives, extent and severity of firearm-related injuries in their victims. All firearm death records were thoroughly reviewed the information like, demographic data of the victim and time interval between incidence, and medico legal examination & examination of the characteristics of firearm injuries like range and number of entry/exit wound, type of weapon used. A detailed history was taken from attendants or the persons accompanying the injured person. Police papers like, inquest report was thoroughly studied and relevant findings were noted at same time. This is an observational descriptive study and data of 309 cases of firearm injuries were recorded, compiled and analyzed.

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RESULTS

Table 1: Gender variation in firearm victims

Gender	Frequency	%	Valid%	Cumulative%
Male	279	90.3	90.3	90.3
Female	30	9.7	9.7	100.0
Total	309	100	100.0	

A total of 309 victims of firearm injuries were recorded during the study period, out of 309 firearm victims, 279(90.3%) males and 30(9.7%) females showed in table 1 and the ages of victims showed in table-2 which is ranged from 0 to more than 60 years. The most frequent cases of firearm victims found at the age of 21-30yrs and 31-40 years, 115(37.2%) each and 2nd most common age group was 41-50 yrs 35(11.3%) and in 3rd most common group was 11-20 years 22(7.1%) which is followed by 51-60 yrs 15(4.9%). A least pattern above 60 years age group contained only 5 cases (1.6%) and the very least number of cases 2(0.6%) in 0-10 years group was found. In age group from 0-10 years the minimum age of the child was 8 years. Table 3 showed the most common region found in fire arm victims was Thorax 140(45.3%), and the 2nd most common region was Abdomen 81(26.2%) and the 3rd common region was pelvis 30(9.7%) found. A least region was Head & neck 29(9.4%) followed by Upper limb 22(7.1%) and very least region in firearm injuries was lower limb 7(2.3%) found. In all above regions 70% from far distance injuries and 30% from near distance injuries were found. History of incidence, weapons used during the incidence and pattern of injuries mentioned 80% were rifled firearm injuries and 20% from smooth bore weapons used for such injuries. Data were analyzed on using SPSS version 20.

Table-2 Age of the victims in Firearm victims

Age	Frequency	%	Valid%	Cumulative%
0-10yrs	2	.6	.6	.6
11-20 yrs	22	7.1	7.1	7.8
21-30 yrs	115	37.2	37.2	45.0
31-40 yrs	115	37.2	37.2	82.2
41-50 yrs	35	11.3	11.3	93.5
51-60 yrs	15	4.9	4.9	98.4
>60yrs	5	1.6	1.6	100.0
Total	309	100	100	

Table 3: Body region involved in firearm victims

Region	Frequency	%	Valid %	Cumulative %
Head & neck	29	9.4	9.4	9.4
Thorax	140	45.3	45.3	54.7
Abdomen	81	26.2	26.2	80.9
Pelvis	30	9.7	9.7	90.6
Upper Limb	22	7.1	7.1	97.7
Lower Limb	7	2.3	2.3	100.0
Total	309	100.0	100.0	

DISCUSSION

Gun ownership is mainly a male phenomenon, a means to demonstrate manhood, particularly among young men.⁽¹⁰⁾ While men are the predominating victims of gun violence, women are most vulnerable behind closed doors, where guns are used to intimidate, control, hurt and kill intimate partners¹¹. In our study the majority of the victims were males 279(90.3%) males and 30(9.7%) females.. The most frequent cases of firearm victims found at the age of 21-40 years. The male preponderance is in keeping with the fact that males are generally more adventurous and more aggressive and a high proportion of firearm related injuries among male could be due to their gender role which obligate them to be more exposed to the outside environment than females. Another study showed a similar findings in a of Baluchistan²². Similar to the rising incidence of homicides throughout the world^{12,13,14,15}. Our study observed an increase in the incidence and percentage of firearm homicides. This observation also agrees with the increasing incidence of firearm homicides in other cities of Pakistan^{16,17,18,19,20,21}. Occupational history showed, 30% victims were jobless, 20% were farmers, 20% were labourers, 5% were students, 10% were drivers, 10% were housewives, 5% were shopkeepers were found in cases. There was no any association of occupation found in risk of firearm injuries, in which most of the victims were engaged in simple occupations such as labour, farming, taxi driving; a good number of students were also victims²³. In almost all the cases, high velocity weapons were used as firearms. In 80(80%) of firearm victims, the injuries were caused by homicidal attacks, whereas in 10 cases (10%) had history of accidental firearm injuries obtained; in 5 cases (5%) fatalities were suicidal and in the remaining 5(5%) the cause(s) of firearm injuries were due to dacoity.

CONCLUSION

1. Males were commonly affected and most common manner was Homicidal
2. The victims of firearm injuries were young people aged between 20-40 years and most common region involved was Thorax.

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