Original Article

Incidence of Deaths due to Gunshot Injuries at District Barkhan, Balochistan

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ABSTRACT

OBJECTIVE: To determine the incidence of deaths due to gunshot injuries in the District Barkhan, Balochistan.

STUDY DESIGN: A retrospective study.

PLACE AND DURATION: District Head Quarter Hospital Barkhan, Balouchistan from January 2007 to December 2010

METHOD: Case records of deaths were selected on the basis of history of fire arm injury, cloth examination and general physical examination of the dead body. The injuries were numbered, chartered and their size, shape and exact site of gunshot injury and its diagnostic characteristic were noted.

RESULTS: The total number of patients was 268; 264 (98.51%) males and 4 (1.49%) females. The most common age group of victims was 31 to 40 years (166, 61.94%). Most common time for gunshot crimes was at morning (114, 42.54%). Among all the cases 97.1% were due to old hostility, homicidal 2.24% were accidental and only 0.75% was suicidal. The most common site of bullets' entry was chest and abdomen 56%. Automatic guns (AK47) were most frequently used i.e. in 254 (95%) cases.

CONCLUSION: Males of young age are very frequently assaulted by automatic weapons, most of the time due to long-term hostility. Chest and abdomen most frequently sustained bullets as compared to other parts of the body.

KEYWORDS: Gunshot injuries, accidental, suicidal, homicidal.

INTRODUCTION

Throughout the world deaths due to gunshot injuries have increased tremendously.[1] Every year hundreds of thousands of people die from injuries caused by gunshot.[2] It was reported that gunshots are the main cause of death in committing murders in a study carried out in Pakistan.[3–4]

The severity of gunshot injuries is determined by the damage of the tissues caused by the mechanical interaction between the bullet and the tissues, and the effects of the temporary cavity produced by the bullet.[5] The medical, legal, and emotional costs of this violence impose an enormous burden on urban and rural hospitals, court of law, families, and society as a whole. The evaluation of these injuries requires specialized training and expertise, whether by an Emergency physician a living gunshot victim or a forensic pathologist the deceased. There is growing concern about the indiscriminate use of fire arms on a large scale, particularly in the last decade.

The availability of fire arm known as small arms and light weapons (SALW) has been described as a cancer spreading across the developing world.[6]

It destabilizes political, social, and economic systems, and leads to disability and death.

Wounds from an air weapon are rarely fatal except when the head is stuck, children are the usual victims. The pellet can enter the skull and traverse the whole width of the brain.[7] Locally made illegal fire arms are commonly used in criminal cases in developing countries.[8]

One of the possible causes for the development of locally made guns is that these weapons are very cheap and are readily available for criminals. Also, obtaining a licensed fire arm is difficult. Fire arms are made in the country blunt and submitted by non-standard caliber having capacity of two or more cartridges. These weapons are manufactured domestically having no subject to the fixed standards in these. The construction of these guns is poor that the fired cartridges can be easily distinguished by distinct markings found on these, not much effective for long distance and long run, material used is of cheaper quality.[9]

There is a powerful correlation between the acquisition of a gunshot and its use in suicides, murders, assaults, and unintentional deaths. As a result of the invention of more advanced gunshots and availability at the global level, there has been dramatic increase in death rates because of gunshot injuries.[10]

Gunshot is the most frequent method of committing homicide and suicide in United States and each year >25,000 deaths are reported by gunshot injuries.

Because of tribal traditions and not have restricted border with Afghanistan, deaths and injuries due to gunshots in Pakistan is not very low than developed countries. In tribal areas of Pakistan armed weapons of almost all kinds are being manufactured. [11]

The incidence and pattern of gunshot injuries and deaths in district Barkhan, Balochistan have not previously been studied. The objective of the study was to outline the pattern of gunshots injuries and deaths in the district Barkhan , Balochistan.

METHODOLOGY

The present study was conducted at the District Headquarter Hospital Barkhan, from January 2007 to December 2010. A total number of 268 medico legal cases were encountered during study period, amongst which cases of deaths by firearm injuries were selected on the basis of history, cloth examination and general physical examination of the victims. Presence of gunshot injuries was sought by the external examination of the body with the naked eye. The injuries were numbered/chartered for the size, shape and exact site and their diagnostic characteristics were recorded. A pre designed proforma was used to record the data. All gunshot death record was thoroughly reviewed for demographic data of the victim, the manner of deaths (suicidal, accidental, homicidal or undetermined), date of the accident - further divided according to the season, type of weapon used, examination of the characteristics of gunshot injuries. Data collected were organized, tabulated, and statistically analyzed on SPSS version 16.

Record was accessed with the permission of authorized medico legal officer of District Headquarter Hospital, Barkhan.

RESULTS

Total 268 victims of gunshot injuries were recorded during the study period. Of 264 (98.51%) were males and 4 (1.49%) females. Most of the victims belonged to Barkhan Balochistan. The age of victims ranged mostly in between 20 and 50+ years, the most affected age was 31 to 40 years 166 (61.94%) as detailed in **Table I**.

The most common sites of entry were chest and abdomen 153 (57.09%), the head 67 (25%) and limbs 48 (17.91%).

Most common time for gunshot crimes was at morning 114 (42.54%) detailed in **Table II**. Most injuries occurred in summer season and the fewest occurred in winter season.

Majority 219 (81.72%) of the victims died at the crime scene, 43 (16.05%) on the way to hospital and 6 (2.25%) died during treatment. Most 260 (97.02%) of the victims were attached due to long-term hostility, 6 (2.25%) cases were accidental and 2 (0.75%) cases were suicidal. The most common used weapons were automatic guns (AK-47) found in 254 (94.78%) cases while other 14 (5.22%) cases were injured by hand-guns (30 and 32 bores).

TABLE I: AGE DISTRIBUTION

Age	Frequency	Percentage
Under 20 years	4	1.49
20 to 30 years	18	6.72
31 to 40 years	166	61.94
41 to 50 years	56	20.91
51+	24	8.96

TABLE II:
TIME OF SUSTAINING GUNSHOT INJURIES

Time	Frequency	%
Morning	114	42.54
Afternoon	74	27.61
Evening	30	11.19
Midnight	50	18.66

DISCUSSION

Injuries from gunshots are a major problem that severely affects the victims, families, social setup, health -care system and criminal justice. Such injuries are common in Pakistan. Despite the magnitude of this problem, little is known about the epidemiologic characteristics of these injuries.

The observations of present study are concurrent to another local study from district DI Khan that reported gunshot injuries as the leading cause of homicidal deaths i.e. up to 58.8%.[12]

Studies from the United States and other developed countries reported that gunshots are the cause of more than 60% of all homicides, over 25% of all assaults, and more than 35% of all robberies and almost half of all suicides.[3]

In contrast to our study, in Denmark and New Zealand, studies showed that suicides accounted for the vast majority of firearm fatalities, i.e. 80% and 75.5% respectively.[13-14]

The high incidence of homicidal deaths in a study in Suez Canal Area cities may be due to the significant use of unlicensed fire arms, which are usually smuggled to commit terrorist acts. This situation occurs in places where weapons are readily available or state legislation allows people to hold fire arms. Illicit means of acquiring gunshots goes hand-in-hand with drug

use. [15]

It was concluded by the present study that males were gunshot victims in very high proportion than the females. They were of young age and mostly shot due to long-term hostility in summer season during day time. A very large majority of the victims were attacked by automatic weapons, which is not a frequently legally allowed/licensed bore of firearm in our country.

Where day time attacks and use of prohibited bore guns indicates the devastating situation of law and order at one hand, on the other hand long-term hostility shows the dire need to improve literacy rate and awareness regarding respect of human life. More rigid implementation of law and intervention of scholars may greatly reduce the loss of precious lives.

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