
ORIGINAL ARTICLE

Analysis of Medicolegal Deaths in Sandeman Civil Hospital Quetta, Balochistan

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ABSTRACT

A retrospective study was done on the cases brought for postmortem examination in the medicolegal section of Sandeman Civil Hospital Quetta during 2009. It is a teaching Hospital of Bolan Medical College Quetta. All the cases from Quetta city, suburbs and rural area were included in the study and results were analyzed.

Objectives: The aim of the study was to know manners of death and modalities in medicolegal deaths presented in medicolegal section of Sandeman Civil Hospital Quetta Balochistan.

Study Design: Retrospective study.

Place and Duration of Study: This study was conducted from 1st January, 2009 to 31st December, 2009 in Medicolegal section Casualty Department at Sandeman Civil Hospital Quetta, a teaching Hospital of Bolan Medical College, Quetta.

Subjects and Methods: Materials for this study have been collected from Sandeman Civil Hospital Quetta Casualty Medicolegal Section including police reports, postmortem reports and clinical notes. During one year study period, a total of 329 medicolegal deaths were presented for postmortem examination in Civil Hospital, Quetta. Males (91.49%) were more commonly involved as compared to females (8.51%). All these cases were grouped according to age and gender, manners and modalities of medicolegal deaths (unnatural). The data thus collected is analyzed on Microsoft program.

We have taken permission from Police Surgeon Sandeman Civil Hospital Quetta for entire study

Results: Most common manner of death was homicide followed by accident, suicide, natural and undetermined in overall age groups. Firearms were the predominant weapons of infliction (70.78%) and the intent was mostly homicidal (77.52%). Among accidental deaths, a total of 47 (43.93%) persons lost their lives in Road Traffic Accidents.

Males constitute (91.49%) and females (8.51%) of all the medicolegal deaths. The age group most commonly involved was 20-29 years (50.56%) followed by 30-39 years (21.60%). Percentage of urban resident victims was high as compared to rural populace.

Conclusion: This study concludes that Homicide was the most dominant manner of death among the unnatural deaths. Firearms deaths were commonest form of homicide, RTA was the commonest in the accidental deaths. Suicide was the rarest manner of death.

Key words: Unnatural deaths, Homicide, Suicide, Accidents.

INTRODUCTION

Human beings are blessed with the gift of life. The purpose of life is to be happy and make others happy & bring peace to all. This purpose is ignored when human pursuit of material wealth and power, satisfaction of physical appetites, and passions cause and terrorize their fellow human beings. The problem of crime and violence, and tools of violence have existed on planet since time immemorial. The present era has witnessed an extreme aggravation of the above. Killing of human being is most serious of major crimes. Every society has its own way of social control for which

it frames certain laws to prevent murders. In early common law, "homicide" was defined as the killing of a human being by the act of another human being. The modern legal definition of Homicide is the act or omission of one human being, which ends the life of another.

In Pakistan most research on cause, mechanism and manner of deaths is based upon data from cities and districts from Punjab, Sindh, Khyber Pakhtunkhwa provinces which are mostly developed regions while none or little is known up to present about the patterns of medicolegal

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deaths in Balochistan, which is the less developed province of the country.

The findings presented in this paper are intended to highlight and analyze the demographic profile, manners and modalities of deaths that were presented in casualty department medicolegal section at Sandeman Civil Hospital Quetta. It creates awareness of violence related deaths as a public health problem.

MATERIAL AND METHODS

This study was performed on 329 cases of medicolegal deaths reported from the urban and rural areas of District Quetta brought to medicolegal section casualty department of Sandeman Civil hospital Quetta Balochistan, a teaching Hospital of Bolan Medical College Quetta during the year 2009 (from 1-1-2009 to 31-12-2009). They were 301 males and 28 females and their ages ranged from 9 months to 90 years

Data regarding age, gender, medical treatment, history and circumstances of death was sought from the police, relatives and friends of the victim. The findings on postmortem examination of the body represent the acceptable source of information for determining the manner of death and modalities involving in medicolegal (unnatural) deaths. Data was entered on a Performa and assessed by MS Excel and results were summarized.

ETHICAL CONSIDERATIONS

Permission was obtained from Police surgeon, Sandeman Civil Hospital, Quetta for the collection of relevant data from the record for entire study.

RESULTS

Out of a total of 329 cases in which 199 (60.49%) cases were homicides, 107 (32.52%) were accidents and 8 (02.43%) were suicidal deaths. In 12 (03.65%) cases, the manner of death was natural, whereas in 03 (0.91%) it was undetermined. Table No.1. Detail is shown in Table No.1 below:

Age wise distribution of deceased persons showed that the maximum deaths 79 (24.01%) were in the age group of 20-29 years, followed by 70 (21.28%) and 60 (18.24%) cases in age group of 30-39 and 40-49 years respectively. The extremes of age were least represented.

Deaths among males were predominant, 301(91.49%), while female number was 28 (8.51%) and male female ratio was 10.75:1.

Detail of the age and gender distribution is represented in Table N0.2

Table 1: Showing distribution of Manner of death in medicolegal deaths.

Manner	Number cases	%age
Homicide	199	60.49%
Accidental	107	32.52%
Suicidal	008	02.43%
Natural	012	03.65%
Undetermined	003	00.91%
Total	329	100%

Table 2: Showing age and sex wise distribution in medicolegal deaths (n329)

Age group	Male	Female	Total	%age
0-9	12	3	15	4.56%
10-19	17	1	18	5.47%
20-29	71	8	79	24.01%
30-39	65	5	70	21.27%
40-49	56	4	60	18.24%
50-59	51	2	53	16.11%
60-69	20	4	24	7.30%
>70	9	1	10	3.04%
Total	301 (91.49%)	28 (8.51%)	329	100%

Among 199 homicidal death cases, firearm weapons were preferred by the assailants as a weapon of assault in 123 (61.81%) cases followed by hard and blunt objects used in 34 (17.08%) deaths and sharp edged and pointed weapon were involved in killing of 25 (12.56%) cases. Bomb blast explosion caused 11 (5.53%) deaths and strangulation asphyxia deaths were 6 (3.01%) (Table No. 3)

Among accidental deaths, a total of 47 (43.93%) persons lost their lives in road traffic accidents. Poisoning was responsible for (7.48%) deaths while natural gas (Sui) poisoning led to (7.48%) deaths. Death percentage due to Heroin was (7.48%). Deaths due to Railway accidents were (4.67%), and 2 men were killed by stray bullets. (Table No.4)

Among suicidal deaths, hanging had higher incidence (37.5%). There was only one case of suicide committed by firearm weapon and one by jumping before a train.

Details shown in Table No.5

About inhabitants, urban residents showed higher incidence than rural residents shown in Table 6.

Table 3: Showing distribution of Homicidal death cases (n=199)

Types	Male	Females	No. of cases	%age
Firearms	117	6 (46.16%)	123	61.81%
Blunt trauma	32	2	34	17.08%
Sharp trauma	23	2	25	12.56%
Bomb blast	010	1	11	5.53%
Strangulation	004	2	06	3.01%
Total	186 (93.47%)	13 (6.53%)	199	100%

Table 4: Showing distribution of Accidental death modalities (n=107)

Modalities	Male	Females	No. of cases	%age
RTA	39	08	47	43.93%
Natural(Sui)poisonous gas	07	01	08	7.48%
Burning	0	01	01	0.93%
Train track related accidents	5	0	05	4.67%
Poisoning	8	0	8	7.48%
Heroin-related deaths	23	0	23	21.50%
Fall from height	5	2	7	6.54%
Electrocution	5	0	5	4.67%
Snake bite	1	0	1	0.93%
Death by blind bullet hit	2	0	2	1.87%
Total	95 (88.79%)	12 (11.21%)	107	100%

Table 5: Showing distribution of Suicide Modalities (n=8)

Modalities	Male	Females	Total cases	%age
Hanging asphyxia	2	1	3	37.5%
Poisoning	0	1	1	12.5%
Death on railway track	1	0	1	12.5%
Drowning	1	0	1	12.5%
Burning	0	1	1	12.5%
Firearm	1	0	1	12.5%
Total	5 (62.5%)	3 (37.5%)	8	100%

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Table 6: Showing Area wise distribution of the unnatural deaths

Area	No. of cases	%age
Urban	203	61.70%
Rural	126	38.30%
Total	329	100%

DISCUSSION

Quetta is the capital city of the Balochistan, with modern and traditional ways of living. According to census report of 2005, Quetta had the population of 815,914 and is the 8th populous city of Pakistan¹. Quetta city is situated at the junction of communication line between interior parts of Balochistan and other three provinces Sindh, Punjab & Khyber Pakhtoonkhawa. It is also a trade and cargo route to Afghanistan and Iran.

In present study we have tried to highlight the manners and modalities in deaths which were brought for medicolegal postmortem examination in Sandeman Civil Hospital Quetta during period of study, 2009. The study results showed that homicide was the most dominant manner of death followed by accidents.

Out of total 329 deaths, 199 (60.48%) were homicidal, 107 (32.52%) accidental, 8(2.43%) committed suicide. In 12 (03.65%) cases, the manner of death was natural, whereas in 03 (0.91%) it was undetermined (Table No.1). This finding of present study is in agreement with studies conducted at Peshawar², Dera Ismail Khan³, and Faisalabad⁴ which showed homicidal deaths predominance in all unnatural deaths. However, this finding is in contrast with studies conducted at Hyderabad⁵, Nigeria⁶ and Dacca⁷ which revealed accidental deaths as dominant manner in all deaths.

Our results illustrate that during the period under study 2009, 199 (60.48%) cases were labeled as homicidal deaths. This finding is in line with the studies conducted in Lahore⁸, and Nawabshah⁹ but is less than the percentage found in Bahawalpur¹⁰, Faisalabad¹¹, and Peshawar².

In this study, the most affected age group was 20-29 years 79 cases (24.01%), followed by 65 cases (21.01%) in age group of 30-39 and then 40-49 year showing 56 cases (18.60%). The extremes of age was least involved.

Our results are similar with the studies in Pakistan¹²⁻¹⁵ and other countries¹⁶⁻¹⁹ reporting highest incidence of medicolegal deaths in this age group. This is due to the fact that it is the most

active period of life. The young individuals easily become emotional and develop enemies during life.

Deaths among males were predominant 301(91.49%), while female number was 28 (8.51%) and male female ratio was 10.75:1. This observation is in agreement to other authors' findings²⁰⁻²².

Among accidental deaths, RTA victims were mostly vehicular occupants than the pedestrians. Quetta city is situated at the junction of communication line to interior parts. Most of people of this region travel on roads. The main reason for RTAs in this region were poorly maintained roads, hilly tracks, vehicle defects, lack of observance of driving rules and lack of trauma care facilities in vicinity of incident and non availability of ambulance services.

Eight deaths (7 males and 1 female) were reported to have been caused by Sui gas poisoning in cold winter season when they had turned the gas heater on to warm the room at night but forgot to switch it off before going to sleep. Poisonous gas filled the room, and subsequently death occurred.

Suicide remained a rarity 8 (2.43%). 5 cases were males as compared to 3 females. Hanging was the predominant means of committing suicide in 3 cases. Among them, 2 were males and 1 female. There was one case of shooting himself.

The study shows that incidents were higher in the urban population (61.70%) as compared to rural (38.30%) which is similar with other studies²³⁻²⁵ However this differs from finding of other observant²⁶.

The difference between urban and rural levels and patterns of violent crime are attributable to the set up of traditional mechanisms of family, community social control, learned behavior traits, opportunities for selected forms of criminal activity and to methods of policing^{27, 28}.

This study showed that firearms as weapon of assault (61.22%) has outnumbered all other weapons. This finding is also in agreement with globally known fact that firearms are primary method of committing intentional deaths. The United Nations global study on homicide statistics; "On trends and patterns in homicide" estimated 468000 homicidal deaths in the year 2010 and firearms was involved in 42 percent of global homicides²⁹,

In Pakistan, predominance of firearms injury and deaths had been reported by authors in studies^{26, 30}.

CONCLUSION

Homicide was the most dominant manner of death followed by accidents. Firearms deaths were most common form of homicides in the period of study. Young adult males were most susceptible. Among accidental deaths, most of the persons lost their lives in RTAs.

This study represents baseline data. To know further detail, more comprehensive research is required

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