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Forensic Medicine

Third Decade of Life: The Most Vulnerable Age in Homicidal Fire-Arms Deaths in Lahore

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ABSTRACT

Objective: This study is aimed to analyze the cases which had been subjected to medico-legal autopsies to find out the most vulnerable age group in homicidal deaths.

Background: The Medico-legal autopsy is conducted not only to find out the cause and manner of death but it also helps to assess the criminal attitude of the society. It also provides information about the usage of different weapons. This study was carried out to find out the age which is most vulnerable to homicide deaths.

Study Design: Retrospective study

Place and Duration of Study: This study was carried out at Forensic Medicine Department KEMU Lahore during the period of 2006-2008.

Materials and Methods: This study was carried out on 2979 cases which had been subjected to medico-legal autopsy. The data was gathered from police documents, autopsy reports and hospital notes. And the various parameters were chosen, like age, sex, manner & cause of death, kind of weapon and seasonal variation.

Results: The results clearly showed that the homicide was the most common manner of death in total 70.36%. (Table No.) The 3rd & 4th decade of age were most abundant, 30.58% and 24.51% respectively. (Table No.) The 3rd decade is the most predominant 30.58%. (Table No.) Suicidal incidence 5.21% was higher in females. (Table No.) Regarding the kind of weapon, the fire-arms deaths were 43.13%, blunt weapons 13.52%, asphyxial deaths 8.96% and by sharp means were 8.59%.

Conclusion: Our study has concluded that, there should be strict control of firearms especially the young (third decade), which will reduce the firearm fatalities.

Key Words: Vulnerable Age, Homicidal, Firearms

INTRODUCTION

The fire-arm injuries are the most common means of violence which has been reported in most of the studies. Because the evil intent is not only to kill the rival but also to keep himself safe by keeping the distance from enemy. Fire-arm fulfills both the objectives. The easy access of fire-arm weapons to the public has also significantly increased its incidence. The excessive usage of fire-arms not only causes increase in the number of deaths but also cause increased morbidity. This puts a lot of stress because of physical and mental disability on the person himself and family and community at large[1].

Day by day more and more sophisticated weapons are being invented, which is resulting in tremendous increase in morbidity and mortality all over the world. In USA, most frequent method of homicide and suicide is by means of fire-arms[2].

The situation in Pakistan is very critical, because the manufacturing of almost all kinds of firearm weapons in the tribal area. All the latest types of weapons are available all over Pakistan[3].

In England and Wales, the most frequent firearms used are shotguns, both in homicide and suicide. On overall the firearms are less frequent method of killing than in rest of the countries[4].

In Turkey during 1997-2001, 54.83% of the homicides involved firearms[5]. A study was carried out in Forensic Medicine Department, Khyber Medical College Peshawar, on 10 years autopsies. It revealed that 75% victims were by firearms[6].

It has also been seen in the studies carried out at Karachi, the firearms were a common means of violent deaths among males in Karachi, 4.22/100,000 per year[7].

MATERIALS AND METHODS

It is basically a retrospective study on the three year period (2006-2008) autopsy cases at King Edward Medical University. A total of 2970 autopsies were performed, out of these 1285 (43%) were firearm victims. The required information was collected from autopsy registers, police papers and hospital notes. Only those cases were picked in which firearms as a kind of weapon were used, and rest of the cases were excluded. These included homicide, suicide and accidental firearms deaths. Variables which were reviewed were manner of death (homicidal, suicidal and accidental), type of weapon, and ages of the victims and sex of the victims.

RESULTS

Manner of Death: The homicidal deaths were 70.36%, suicidal 3.42% and accidental incidence was 7.42%. Those of the un-determined cases were 7.15% and natural deaths were 11.65%. (Table No. 1)

Age and Sex Distribution: Amongst the homicidal deaths, highest incidence 30.58% was seen in 3rd decade with male and female almost equal distribution. It is followed by 26.65% in 4th decade also having the same sex distribution, and 16.6% in the 5th decade, with male and female distribution same too. (Table No. 2)

Type of Weapon: Amongst all the un-natural deaths, the incidence of firearm deaths was the highest (43.14%). Out of these males were 44.36% and females were 38.02%. The next higher incidence was that caused by sharp edged weapons (13.53%). Amongst these males were 14.40% and females were 9.90%. The incidence of natural deaths was 11.65%, males 12.57% and females 7.81% (Table No. 3).

Table No. 1: Manner of death (2979 cases)

Manner of Death	2006	%	2007	%	2008	%	Total Cases	%age
Homicidal	771	75.81	632	64.16	693	70.93	2096	70.36
Suicidal	22	2.16	44	4.47	36	3.69	102	3.42
Accidental	75	7.38	81	8.22	65	6.65	221	7.42
Un-Determined	62	6.10	88	8.93	63	6.45	213	7.15
Natural	87	8.55	140	14.22	120	12.28	347	11.65
Total	1017	100.00	985	100.00	977	100.00	297	100.00

Table No. 2: Age and Sex Distribution of Total 2979 Cases

Age	Male	%age	Female	%age	Total	%age
0 - 11 months	30	1.25	15	2.60	45	1.51
1 - 10 years	35	1.46	28	4.86	63	2.12
11 – 20 years	200	8.32	124	21.53	324	10.88
21 – 30 years	738	30.71	173	30.03	911	30.58
31 - 40 years	620	25.80	110	19.10	730	24.51
41 – 50 years	382	15.90	60	10.42	442	14.84
51 – 60 years	213	8.86	22	3.82	235	7.89
61 – 0nward years	185	7.70	44	7.64	229	7.67
Total	2403	80.66	576	19.34	2979	100.00

Table No. 3: Causative Agent with Sex Distribution

Kind of Weapon	Males (2403)	%age	Female (576)	%age	Total	%age
Blunt Means	346	14.40	57	13.52	403	13.52
Sharp Means	180	7.49	76	8.59	256	8.59
Fire-arms	1066	44.36	219	38.02	1285	43.14
Poisoning	48	2.00	26	4.51	74	2.48
Burns	26	1.08	24	4.17	50	1.68
Throttling	29	1.21	23	3.99	52	1.75
Ligature Strangulation	43	1.79	21	3.65	64	2.15
Hanging	72	3.00	32	5.56	104	3.49
Suffocation	17	0.71	13	2,26	30	1.01
Electrocution	15	0.62	4	0.69	19	0.64
Drowning	16	0.67	1	0.17	17	0.57
Bomb Blast	65	2.70	00	00	65	2.18
Natural	302	12.57	45	7.81	347	11.65
Un-Determined	178	7.41	35	6.02	213	7.15
Total	2403		576		2979	100.00

DISCUSSION

Manner of Death: Homicidal incidence was 70.36%, suicidal 3.42%, accidental 7.42%, un-determined 7.15% and natural was 11.65%. Azmak[19] in Turkey quoted homicidal 68.3%, and Molina[16] stated homicidal 52.2% suicidal 45.8% and accidental 1.6%. Solarino[29] in Bari had quoted homicidal as 88.42%, suicidal 11.43% and accidental 0.13%. Elfawal[30] had quoted homicidal 48%, suicidal 28% and accidental 24% in Saudi Arabia. Verzeletti[31] had quoted homicide 35.9%, suicide 60.4% and accidental 3.7% in Bressica Italy. Shah[12] quoted homicidal 60.8%, suicidal 5.4% and accidental as 9.5%.

This showed that homicidal incidence by firearms was almost same as in other studies. The suicidal and accidental incidence is lower than those of the European countries.

Kind of Weapon: Our study highlighted that, the firearm is most common used weapon 43.13% of total medico-legal autopsies. This is the highest number than other weapons. It is also comparable with Parveen et al, 41% in Lahore in 1996[8]. It is less than that of reported by Marri et al 85.9% in Peshawar in 2002[9]. Hussain et al 91.87% in Peshawar[10], Malik et al 65.5% in Lahore[11], Shah et al 64.9% in D.I. Khan[12], Hassan 62.5% in Abotabad[13], Sahito et al 61.8% in Sindh[14], Aziz K 58.3% in Lahore in 1991-1995[15], Molina and Di Maio 52% in Bexar[16], Bashir et al 49.9% in Faisalabad in 2001-2002[17], and Qadir and Aziz in 1998 in Larkana[18]. Our study showed higher incidence than Azmak 17.03% in Edirne[19], but lower than mentioned by Malik et al 65.5% in Lahore in 2003[11].

Age Incidence: Our study showed highest of all incidences 38.9% in 3rd decade. This is in comparison with that quoted by Bashir[20] 42%, Qadir[18] 385, Malik[11] 35%, Aziz K[15] 58%, Bashir[17] 31.18%, Azmak[19] 54%, Seleye[21] 37.5%, Kohli[22] 46.7%, Chaudhry[23] 38% and Murri[9] 86% in 3rd decade. Al-Madni[24] 40.62% in 21-40 years, that too mostly include 3rd decade. Molina[16] quoted 32.6 years as the mean age for the homicide. This clearly indicates the 3rd decade the most vulnerable age group involved in all the homicidal deaths and that too by means of firearms weapon. This is also comparable to that of Chao[25] and Dikshit[26]. But is different from those quoted by Chu[27] with 15-19 year predominance, and Rachuba[28] quoted 10-25 years the most vulnerable age group.

CONCLUSION

Our study has concluded that, there should be strict control of firearms especially the young (third decade), which will reduce the firearm fatalities.

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