

ANALYSIS OF MEDICO LEGAL AUTOPSIES AT FAISALABAD

DR. AHMED SAEED DMJ

Assistant Professor, Trainee FCPS-II
Department of Forensic Medicine
Khyber Medical College, Peshawar

Khyber Medical College, Peshawar

DR. ANJUM ZIA MUNAWAR, DMJ

Assistant Professor
Department of Forensic Medicine
Khyber Medical College, Peshawar

DR. ZAHID BASHIR DMJ

Associate Professor, Trainee FCPS-II
Department of Forensic Medicine

DR. JAVED IQBAL MBBS

Demonstrator
Department of Forensic Medicine
Punjab Medical College, Faisalabad

Khyber Medical College, Peshawar

DR. INAYAT-UR-REHMAN KHALIL, FRCP

Professor
Department of Forensic Medicine
Khyber Medical College, Peshawar

DR. S MUHAMMAD AIJAZ ALI DMJ

Assistant Professor, Trainee FCPS-II
Department of Forensic Medicine

ABSTRACT

Objective: To collect and publish scientific information regarding different variables of MEDICO LEGAL autopsy to be used by health and law enforcement agencies for future planning. **Data source:** Cases autopsied at the department of forensic medicine, Punjab medical college, Faisalabad. **Study design:** Non-interventional descriptive **Setting** Department of forensic medicine, Punjab medical college, Faisalabad. **Period:** July 2001 to June 2002. **Material and method:** Study includes 236 cases of MEDICO LEGAL autopsy including both sexes. After legal formalities and examination of the clothes, a detailed external and internal examination of the dead body was conducted. Specimens were sent for further examinations where necessary. Findings were tabulated and analyzed. **Results:** Majority of the victims (52.5%) was between the age of 20-39 years. Male cases outnumbered the female cases. Firearm was the most common causative agent in MEDICO LEGAL deaths. Homicide was the dominant manner of death. Maximum number of injuries was inflicted on the chest. A peak in MEDICO LEGAL deaths was noted in extreme summer. **Conclusion:** Homicide as a dominant manner in MEDICO LEGAL deaths and firearm being the commonest weapon of offence are eye openers. Strict legislation regarding holding of firearm weapons and justice without delay are the major steps which can help in improving the situation.

INTRODUCTION

The purpose of any MEDICO LEGAL investigation into sudden, unexplained, unexpected or violent death must

be to establish with all possible accuracy and precision the cause and manner of death¹.

Autopsy means detailed scrutiny of both external surface

and internal contents of the body after opening its cavities including further examinations such as histology, biochemistry and toxicology of collected material².

Autopsy is basically of two types that is hospital /clinical autopsy and MEDICO LEGAL/forensic autopsy. The hospital autopsy is an examination performed with the consent of the deceased person's relatives for the purpose of determining the cause of death, providing correlation of clinical diagnosis and clinical symptoms, evaluating the effectiveness of therapy, studying the natural course of disease processes and educating students and physicians³. Hospital 01 clinical autopsy is rarely performed in Pakistan due to cultural reasons. Dissection after death is regarded as disrespect to the dead body in this society and also there is a trend of early burial of the body after death.

MEDICO LEGAL autopsy is performed in pursuance of law to establish the cause and manner of death and also to establish or rule out foul play. These autopsies comprise mainly of the cases of deaths due to criminal assault, poisoning and accidents on the road, rail or industry².

In Pakistan section 174 of criminal procedure code empowers the area police official to investigate suicide, homicide and deaths due to accident or ones occurring in other suspicious circumstances⁴. From these only those deaths undergo investigation which are reported to police and if police officer thinks necessary he may send the corpse of the above types to a qualified medical man for autopsy provided he is in doubt regarding the cause of death. He may also dispose of these cases without autopsy. All reported cases are therefore not subjected to autopsy². Haverd in his *Detection of Secrete Homicide* (1960) has enlarged on the danger of disposing of MEDICO LEGAL cases without autopsy, and these dangers have been confirmed by other surveys. The work of Heasman (1962) and Johnson (1969) both confirm that clinical diagnosis is incorrect in approximately 50% of cases¹.

In Faisalabad MEDICO LEGAL Autopsies are conducted

at the department of forensic medicine, Punjab Medical College Faisalabad by the teaching staff of the department. Cases for autopsy are referred by the police officers of various police stations.

Objective of the study is to get and publish scientific information regarding different variables of MEDICO LEGAL autopsy like age and gender distribution of the victims, causes and manner of death, regional distribution of the fatal injuries and seasonal variation. This information may subsequently be used in public interest by health authorities and law enforcement agencies for future planning.

MATERIAL & METHODS

The study was conducted at mortuary unit of department of forensic medicine, Punjab Medical College Faisalabad. It includes 236 cases of MEDICO LEGAL autopsy referred from different police stations of Faisalabad city and sadar during the period from 1 -7-2001 to 30-6-2002 (one year).

Following procedural steps were followed for MEDICO LEGAL autopsy examination. Scrutiny of the authorization letter and other police papers. Interview with relatives of the deceased and eyewitnesses of the incidence to take history of the case. Examination of the dead body while in the clothes and collection of any trace evidence on the dead body or clothes.

Removal and detailed examination of clothes for any significant finding of MEDICO LEGAL importance. External examination of the dead body to note postmortem changes, injuries and wounds of therapeutic intervention if any. Internal examination of the dead body to look for internal evidence of injuries, therapy and pathological changes in internal organs. Collection of biological and other material like bullet projectile/ pellets etc .for further examinations by chemical examiner, histopathologist or ballistic expert. Stitching, washing and clothing of the dead body before being handed over to the police after autopsy examination.

Findings were recorded, tabulated on a sheet of paper and analyzed regarding different variables.

RESULTS

Majority of the victims (52.5%) were in the prime age of life (20-39 years). The most vulnerable age being 20-29 years in 28% of the victims followed by 30-39 years in 24.5% of the victims. Age distribution of the victims is shown in table-I.

Male cases outnumbered the female cases. Ratio of gender vulnerability is given in figure-1.

Firearm was the most common causative agent in the MEDICO LEGAL deaths followed by sharp edged weapon. Different causes of death ascertained in the cases brought for MEDICO LEGAL autopsy are given in Table II.

Homicide was the most dominant manner of death followed by suicide. Out of total 236 cases 188 (79.7%) were homicidal while only 21(8.9%) suicidal in nature. Manner of death was accidental in 10 cases (4.2%) and natural in 17 cases (7.2%) Ratio of different manners of death is shown in Figure-2.

In 236 cases of MEDICO LEGAL autopsies 308 fatal injuries were present on the body with an average of 1.3 injuries/case. Maximum no of injuries were inflicted on the chest followed by head. Extremities received minimum no of fatal injuries. Regional distribution of fatal injuries is shown in table-III.

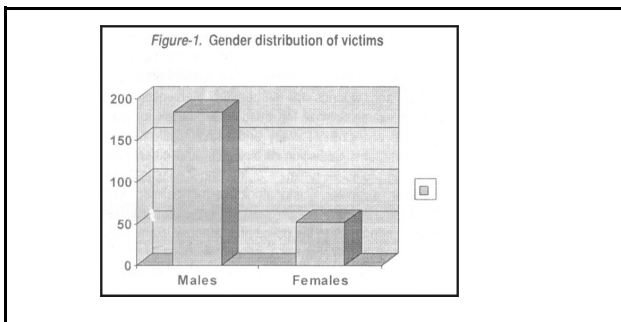
Maximum no of autopsies(28.3%) were conducted in the months of June and July (peak of summer) while only 9.7% were conducted in the months of January and February (peak winter). Month wise distribution of MEDICO LEGAL autopsies is shown in figure-3.

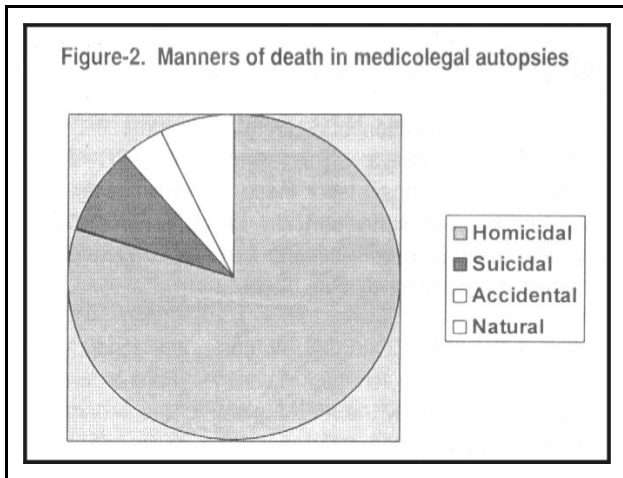
Table-1. Age distribution of the victims

Age in Years	No of Cases	% age
0-9	21	9.0%
10-19	29	12.3%
20-29	66	27.9%
30-39	58	24.6%
40-49	32	13.5%
50-59	16	6.8%
60-69	8	3.4%
> 70	6	2.5%

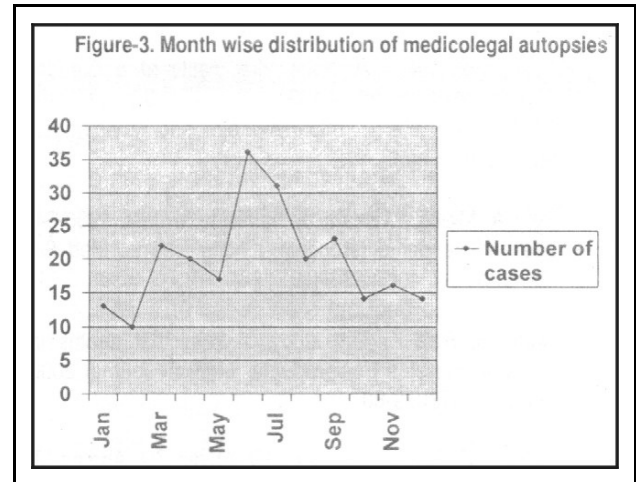
Table-II. Causes of death ascertained on medicolegal autopsy

Cause of death	No of Patients	%age
Firearm	97	41.1
Sharp force	47	19.9
Blunt Force	25	10.6
Sharp+Blunt Force	3	1.3
Burns	6	2.5
Poisoning	6	2.5
Drowning	3	1.3
Hanging	12	5.1
Strangulation	15	6.4
Throttling	3	1.3
Suffocation	2	0.8
Natural Disease	17	7.2





Lower Limb	17
Upper Limb	10
Total	308



DISCUSSION

Primary objective of medico legal investigation of death is to establish the cause and manner of death. Success of these investigations revolves around the proper collection and preservation of physical evidences at the scene and from the dead body. For this purpose medico legal autopsy is the idea exercise. MEDICO LEGAL autopsy is performed in all the deaths, which are criminal suspicious or otherwise potentially litigious in nature. In our society natural deaths which form a significant portion of the total mortality are neither reported to the police nor undergo any autopsy examination. Likewise many jurisdictions in the United States and elsewhere do not call for autopsies on deaths that appear to be natural⁵. Similarly in many cases of unnatural death where death is accidental in nature and there is no likelihood of the case going to the court, investigation officer concludes the investigation without an autopsy.

Body region	Number of fatal injuries
Chest	81
Head	76
Neck	67
Abdomen	57

Our study shows that during the period of one year (1-7-2001 to 30-6-2002) 236 cases belonging to different age groups and gender were referred for autopsy by the police officers responsible for death investigation from different police stations of Faisalabad. Although no age group is immune, however the most vulnerable age group is 20-29 years, which is prime of the life. This age is of activity, motivation, emotions, interactions and financial responsibilities. Death in this age causes emotional trauma as well as financial loss to the family of the victim. Similar studies conducted at Bahawalpur⁶, Lahore⁷, Peshawar⁸ and Rawalpindi⁹ also show the same trend.

In our study 184 victims were males and 52 females forming a male to female ratio of 3.54: 1. It is comparable with the study at Lahore showing male to female ratio of 3.5: 1⁷. while this ratio in Peshawar is 5.5 :1⁸. Reason for male preponderance is that males are more exposed to outdoor interactions and become involved in financial, property and other disputes. While most of the women in this society remain limited to household activities so are rarely involved in such disputes.

Study shows that firearm was the most commonly used weapon of assault. This is in agreement with other studies conducted in different countries of the world¹⁰. Statistical data from U.S.A. indicate that more than 60% homicides are caused by firearm¹¹. In United States firearm is responsible for 30,000 deaths every year¹². In Italy about 70% of the homicides involve firearm¹³. Results are also comparable with studies conducted in other cities of Pakistan such as Bahawalpur⁶, Lahore⁷, Peshawar⁸, Rawalpindi⁹, and Larkana¹⁴. However firearm deaths in Faisalabad (41.1%) are less common than those in Peshawar (88%)⁸. This is due to the reason that ownership of sophisticated weapons is a status symbol in that society, also because people of Peshawar have free access to these weapons due to firearm manufacturing units in tribal area in vicinity of Peshawar¹⁵.

Study also shows that most common manner of death in medico legal autopsies in Faisalabad is homicide being about 80% of all the cases. Similar results were also shown at Bahawalpur⁶ and Peshawar⁸ where homicide was dominant manner of death being 80.3% and 82.7% respectively. While our results differ from the study conducted at Lahore where only 55.2% of the total autopsy cases were homicidal⁷. Better law and order situation may be a reason. Suicide is a less common manner of death making only 8.9% of the total autopsies conducted during the study period. This is comparable with the results of the work done in Karachi where suicides are 8.1% of the total autopsies¹⁶. However in Bahawalpur suicidal deaths are only 5.6% of the total autopsies⁶ while in Peshawar suicidal deaths are rare⁸. Possible reason may be difference in level of industrialization and urbanization.

In 17 cases manner of death was natural. These were the cases of unexpected / sudden death referred for autopsy due to initial suspicion of some foul play but autopsy revealed a natural reason for death. This type of non criminal medico legal autopsies are very common in England and Wales where some 80% of routine autopsy load consists of such cases of sudden death¹⁷. Our study shows that most of the fatal injuries were present on the

chest followed by head. Reason for this is the popular belief that these areas contain the vital organs necessary for maintaining the life. So these areas are usually targeted to make the surety of death. Studies conducted at Peshawar⁸, Rawalpindi⁹ and Lahore⁷ show that chest and head are the two top must target areas in medico legal killings.

Results of our study reflect a definite seasonal variation in medico legal autopsies with a peak in extreme summer. One reason for this may be an early loss of temperament in hot season other reason may be the fact that due to larger days in summer, time of interaction and activity is increased. Also in summer most of the people sleep in the open so can easily be targeted by their enemies. The same trend has also been shown in a similar study conducted at Peshawar⁸.

CONCLUSION

Homicide as a dominant manner in medico legal deaths and firearm being the commonest weapon of offence are eye openers for the society as well as legislative and law enforcing agencies. Strict legislation regarding holding of firearm weapons and justice without delay are the major steps which can help in improving the situation.

REFERENCES

1. Camps FE. Gradwohl's legal medicine. 3rd ed. Bristol: John Wright & Sons Ltd; 1976:57-61.
2. Awan NR. Principles and practice of forensic medicine. Lahore: Sublime arts; 2002:91-130.
3. Lukash LI. Forensic autopsy procedure. Forensic pathology. Fisher RS, Petty CS. London: Castle House Publications Ltd; 1980:1-9.
4. Criminal Procedure Code Act-V of 1898, Section 174.
5. Fatteh A. Handbook of forensic pathology. Philadelphia : J.B. Lippincott Company; 1973:1-10.
6. Ali SMA, Ahmed R, Rehman AU. Involvement of manners and modalities in medico- legal deaths. The Professional.

Apr-Jun 2000; 07(02) :234-8.

7. Aziz K, Rana P, Malik SA. Homicide in Lahore. Pakistan Postgraduate Medical Journal. Jan-Mar 1999; 10(1):10-13.
8. Memon MU, Khalil ZH, Aziz K, Kaheri GQ, Khalil IR. Audit of cases autopsied in the mortuary of Khyber medical college Peshawar during the year1999. Annals. Jul-Sep 2001; 7(3):190-93.
9. Chughtai BR, Uraizy SMH, Rashid MA, Chaudhery TH Ahmed B, Qureshi GAA. Incidence of homicidal deaths. The Professional. Oct-Dec 2000; 09(04):316-319.
10. Krug EG, Powel KE, Dahlberg LL. Firearm-related deaths in the United States and 35 other high- and upper-middle-income countries. Int J Epidemiol 1998 Apr; 27(2):214-21.
11. Forest DE, Ganesslen ER, Lee CH. Tool marks and firearms. In Forensic Science, An introduction to criminalistics. Mc Grawhill, New York; 1983:383-412.
12. Bureau of justice statistics. Key Facts at a Glance-Firearm deaths by intent 1991-99. [Cited 2002 Nov 20] <http://www.ojp.usdoj.gov/glance/tables/frmdth.htm>.
13. Perti A, Miotto P. Death by homicide in Italy, 1980-94: age and gender differences among victims. Med Sci Law 2000 Jul; 40(3):233-40.
14. Qadir G, Aziz K. The study of homicidal deaths in Larkana. Pakistan Postgraduate Medical Journal 2000 Apr-Jun; 11(3):79-80.
15. Hussain Z, Saeed A, Kaheri GQ, Abidin ZU, Ahmed M, Khalil IU. Firearm fatalities in Peshawar. Medical Channel 2002 Oct-Dec; 8(4):16-19.
16. Sultana K. Proportion of suicidal deaths among autopsy. Ann Abbasi Shaheed Hosp Karachi Mar 2002; 7:317-8.
17. night B. The coroner's autopsy. London: Churchill Living stone; 1983:61-121.