

PROFILE OF MEDICOLEGAL AUTOPSY CASES CONDUCTED AT TERTIARY CARE CENTRE IN BIKANER, RAJASTHAN: A ONE YEAR RETROSPECTIVE STUDY

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Abstract

Background: Medico-legal autopsies form an integral and indispensable part of an investigation of sudden suspicious death. The profile of medico legal autopsy cases is important in order to know the death statistics in a region due to unnatural causes and also help to address the demographic needs according to the mortality statistics specific to that region.

Material and Method: The present study is a one year retrospective study of autopsies performed in the Department of Forensic Medicine and Toxicology at Sardar Patel Medical College & P. B. M. Hospital, Bikaner, Rajasthan, India from January 2018 to December 2018 comprising 810 cases.

Aim: This study was conducted to find out the profile of different types of cases and to assess the manner & cause of their death.

Result: Out of 810 cases, maximum number of autopsies were in third decade of life (260 cases, 32.10%). Male cases predominated over the female cases, which were 638 (78.77%). Hindus were majority in number with 734 cases (90.62%). Accident, Suicide and Homicide deaths were 504 (62.22%), 177 (21.85%) & 24 (02.96%) cases respectively. Maximum number of deaths were due to road traffic accidents with 313 cases (38.64%) followed by poisoning with 140 cases (17.28%).

Conclusion: It is observed that majority of cases were in 3rd decade of life and Preponderance of male sex is seen over female sex. The most common cause of death is road traffic accident, probably owing to higher frequency of transportation.

Keywords: Autopsy, Road traffic accidents, Poisoning, Burn, Hanging.

Introduction

Medicolegal autopsies form an integral and indispensable part of an investigation of sudden suspicious death. The profile of medico legal autopsy cases is important in order to know the death statistics in a region due to unnatural causes and also help to address the demographic needs according to the mortality statistics specific to that region. It is also necessary in order to prevent the preventable casualties in future and to study the genuine crime rate in the area.¹

Medicolegal autopsy, which is performed on the requisition of the legal authority in circumstances relating to suspicious, sudden, obscure, unnatural, litigious or criminal deaths, and the information so derived is applied for legal purposes to assist the course of justice.²

The objective of postmortem examination (also known as autopsy or necropsy) is to establish the identity of a body, when not known, to ascertain the time since death, and the cause of death; and whether the death was natural or unnatural and if unnatural, whether it was homicidal, suicidal, or accidental. In case of newly born infants, the

question of live birth and viability assume importance and should be determined.³

Aims and Objectives

The study was conducted to find out:

1. To evaluate profile of medico-legal autopsies.
2. To find remedial measures to bring down the incidences.

Material and methods:

The present study is a retrospective study of autopsies performed in the Department of Forensic Medicine and Toxicology at Sardar Patel Medical College & P. B. M. Hospital, Bikaner, Rajasthan, India from January 2018 to December 2018. Relevant information like age, sex and cause & manner of death was collected from Post mortem registers/records, Inquest papers and Post mortem reports. The information was compiled, tabulated and analyzed.

Results:

A total of 810 medico legal autopsies were conducted during the study period from January 2018 to December

2018, out of which 638 (78.77%) were males and 172 (22.83%) were females (Table-3). The maximum number of autopsy cases i.e. 260 (32.10%) were in the age group of 21-30 years, followed by 31-40 years i.e. 154 cases (19.01%) and 11-20 years and 41-50 years comprising of 128 cases (15.80 %) and 123 cases (15.18 %) respectively. 03 (0.37%) cases were non-viable fetus (Table-1). Hindus were majority in number with 734 cases (90.62%) followed by Muslims with 54 (6.66%) and 22 (2.72%) cases were unknown (Table-2). Maximum numbers of autopsy cases [107 (13.21%)] were conducted in July (Table-4). RTA was most common cause of death (n=313, 38.64%), followed by poisoning (n=140, 17.28%), hanging (n=73, 09.01%). In present study death due to asphyxia comprises hanging 73 (9.01%), drowning 17 (2.1%), suffocation 2 (0.25%), strangulation 1 (0.12%), and traumatic asphyxia 1 (.12%) cases (Table-6). Most of the deaths were accidental (n=504, 62.22 %) followed by suicidal (n=177, 21.85%) (Table-5).

Table 1: Age Wise Distribution of Cases

Age group	Total	Percentage
Non-viable fetus	03	00.37
0-10	19	02.35
11-20	128	15.80
21-30	260	32.10
31-40	154	19.01
41-50	123	15.18
51-60	74	09.14
61-70	37	04.56
70-80	8	00.99
>80	4	00.50
Total	810	100

Table 2: Religion Wise Distribution

Religion	Number of cases	Percentages
Hindu	734	90.62
Muslims	54	06.66
unknown	22	02.72
Total	710	100

Table 3: Sex Wise Distribution

Sex	Number of cases	Percentages
Male	638	78.77
Female	172	22.23
Total	810	100

Table 4: Manner Wise Distribution of Cases

Manner of Death	Number of cases	Percentages
Accidental	504	62.22
Suicidal	177	21.85
Homicidal	24	02.96
Natural	56	06.92
Undetermined	49	06.05
Total	810	100%

Table 5: Month Wise Distribution of cases

Month	No. of Autopsies	(%)
January	50	06.17
February	63	07.78
March	59	07.28
April	64	07.90
May	87	10.74
June	72	08.89
July	107	13.21
August	63	07.78
September	62	07.66
October	70	08.64
November	64	07.90
December	49	06.05
Total	810	100

Table 6: Distribution of cases according cause of death.

Cause of death	No. of Autopsies	Percentage (%)
RTA	313	38.64
Poisoning	140	17.28
Snake bite	02	00.25
Burns	36	04.44
Electrocution	33	04.07
Fall from height	16	01.98
Fall of Heavy object	20	02.47
Train Accident	24	02.97
Hanging	73	09.01
Strangulation	01	00.12
Suffocation	02	00.25
Traumatic asphyxia	01	00.12
Drowning	17	02.10
Assault	24	02.97
Heat stroke	03	00.37
Disease	56	06.91
Undetermined / Opinion pending	49	06.05
Total	810	100

Discussion:

During the study period a total of 810 medico legal autopsies were performed at Sardar Patel Medical College & PBM Hospital mortuary during the period of 1st January 2018 to 31st December 2018. In our study, maximum number of autopsy cases (n=260, 32.10%) were in the age group of 21-30 years, followed by in 41-50 years i.e., 154 cases (19.01%). These findings are in consistency with findings of Agrawal R et al,⁴ ME Bansude⁵ and G.G. Dayanand et al⁶.

The present study majority of victims were male 638 (78.77%) as compared to female 172 (22.83%). Similar findings were seen in studies done by G.G. Dayanand et al.⁶ Murthy et al,⁷ K. Sundaram et al,⁸ and Sharma B.R. et al.⁹ The reason being that as males are bread earners and females usually doing household work, which makes the males more vulnerable to accidents, violence and stress & also males predisposed for risk taking behavior. In our

study 92.6% were Hindus, and 7.4% were Muslims. Similar findings are observed in studies by Junaidi K. A. et al.¹⁰

In present study major causes of death comprises RTA 313 ((38.64%) followed by poisoning 140 case (17.28%) which was differ from G.G. Dayanand et al.⁶ poisoning 124 (46.61%) followed by burns 71 (26.69%), Rahul agrawal et al.⁴ trauma 818 (37.2%) followed by burn 277 (12.6%), K. Sundaram et al.⁸ trauma (27.26%) followed by asphyxia and hanging (15.3%) and was in unison with the study of Junaidi K. A. et al.¹⁰

In our study most common manner of death was accidental 504 (62.22%), followed by suicides 177 (21.85%) which was consistent with the study conducted by Pawar C.K. et al.¹¹ and G.G. Dayanand et al.⁶

Conclusion: It is observed that majority of cases were in 3rd decade of life and Preponderance of male sex is seen over female sex. The most common cause of death is road traffic accident, probably owing to higher frequency of transportation.

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