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Original Research Article

Profile and pattern of post-mortem cases in mortuary of district hospital (associated with government medical college, Vidisha). — A cross-sectional study

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ABSTRACT

The present study is a record based study of Post-mortems performed at Mortuary of District Hospital (Associated with Medical College) Vidisha, MP, India, from January 2018 to December 2018 comprising 330 cases. This study was conducted to determine and evaluate the socio-demographic profile of different types of cases and to assess the nature and cause of their death. Of these cases 247 (74.84%) were males, 54 (25.15%) were females and 276 (83.63%) were identified whereas 54 (16.36%) were unidentified. Accidental deaths were commonest 142(43%), then death due to poisoning 98(29.69%). Pathological deaths were 36(10.89%). Death due to assault were less common 24 (7.27%).

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1. Introduction

Atal Bihari Vajpayee Government Medical College situated in Vidisha. District Hospital Vidisha is associated with Medical College. It is an important tertiary health care hospital not only for Vidisha but also for surrounding many Districts. Being a tertiary care hospital such a health set up caters to variety of medico-legal cases like road traffic accidents, industrial accidents, poisoning cases, Burn cases, bites etc. which are basically accidental, suicidal and homicidal involving various aspects of the law of the land. The term 'Autopsy' originates from ancient 'Autopsia' which is derived from 'Autos' i.e. 'Oneself' and 'Opsi' i.e. 'to see for oneself'. An autopsy is frequently done in cases of sudden death where a doctor is not able to give a death certificate or when death is believed due to a unnatural cause.¹ Section 174 and 176 Code of

Criminal Procedure (Cr. P.C.) mention the concept of a medico-legal autopsy during the investigations of a sudden, suspicious, unnatural death.² The objective of medico-legal post-mortem examination 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 new born infants, the question of live birth and viability assume importance and should be determined.³ A complete autopsy involves opening all body cavities and all organs of the trunk, chest, and head.⁴ Objective of the study to identify the pattern of Post-mortem Cases, with regard to various criteria like age, sex, and cause of death etc

2. Materials and Methods

This is a retrospective study, conducted in medico legal section and casualty of District Hospital (Associated with

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Government Medical College, Vidisha) during the period from 1st January 2018 to 31st December 2018. Post-mortem cases of above duration included in this study. Data were collected using a pre-designed format from Post mortem registers/records, Inquest papers and Post mortem reports, the data was tabulated using Microsoft excel work sheet and analysis was done using Epi-info software (version 3.2). Descriptive results are presented in table form.

2.1. Observations

Of these cases 247 (74.84%) were males, 54 (25.15%) were females and 276 (83.63%) were identified whereas 54 (16.36%) were unidentified. Younger 11 to 30 years age group were commonest 170(51.45%). 1 – 10 years were 4(1.21%), 31-40 were 61 (18.48%), 41-50 were 45 (13.63%) and above 61 years were 31 (9.39%).(Table 1)

Table 1: Age wise distribution of cases (n=330)

Age groups	No. of cases	Percentage (%)
1-10	4	01.21 %
11-20	51	15.45%
21-30	119	36.06%
31-40	61	18.48%
41-50	45	13.63%
51-60	19	5.75%
61 & above	31	9.39%
Total	330	100%

Post -mortem cases were more in number in summer season from April to July 151(45.75%). less in number in winter from December to march 77 (23.33%). August to November cases were 102 (30.9%). (Table 2)

Table 2: Months wise Distribution (n=330)

Month	No. of cases (Percentage)
January	16(4.84%)
February	14(4.24%)
March	22(6.66%)
April	36(10.9%)
May	44(13.33%)
June	40(12.12%)
July	31(9.39%)
August	26(7.87%)
September	29(8.78%)
October	28(8.48%)
November	19(5.75%)
December	25(7.57%)
Total	330(100%)

Among the natural deaths, Some pathology was seen in 30 (10.89%) cases, Cardiac pathology in 06 (1.81%) cases Among Un-Natural death, Accident 142(43%) was prominent cause of death specially in males 130 (39.39%). Poisoning 98 (29.69%) is common cause of death in females

60 (18.18%). Assault cases were infrequent 24 (7.27%) and found only in males. Hanging cases were 19 (5.75%) then, Drowning 7 (2.12%), Electrocutation 2 (2.12%), Snake bite 2 (2.12%) respectively. (Table 3)

Table 3: Pattern of Post-mortem cases with sex wise distribution (n=330)

Cause of Death	Male	Female	Total
Poisoning	38 (11.51%)	60 (18.18%)	98(29.69%)
Accident	130 (39.39%)	12 (3.63%)	142 (43%)
Hanging	15 (4.54%)	4 (1.21%)	19 (5.75%)
Assault	24 (7.27%)	0 (0 %)	24 (7.27%)
Pathological	23 (6.96%)	7 (2.12%)	30 (9.09%)
Cardiac Pathology	6 (1.81%)	0 (0%)	6 (1.81%)
Drowning	7 (2.12%)	0 (0%)	7 (2.12%)
Electrocutation	2(2.12%)	0 (0%)	2 (2.12%)
Snake bite	2 (2.12%)	0 (0%)	2 (2.12%)
Total	247 (74.84%)	83 (25.15%)	330 (100%)

3. Discussion

Out of 159 cases maximum number of autopsy cases were in the age group of 21-30 years which is the most productive year in one's life. These findings are in consistency with findings of Kannan K(3), Mathiharan K⁵, Curran WJ⁶ & ME Bansude.⁷ In our study majority of victims were males(74.84%). Similar findings are seen in studies done by Murthy et al.^{8,9} who studied 150 cases out of which 123(82%) were males & 27(18%) females. Mugadlimath et al.¹⁰ studied 64 cases out of which 39(61%)were males & 25 (39%) females. 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 behaviour Deaths due to road traffic accidents & its complications constituted majority of cases 43% followed by poisoning 29.69% Similar findings are observed in studies done by K Awdesh et al.⁹ and ME Bansude.⁷ The reason being that our centre being tertiary care hospital, most of the accident cases are referred to our hospital including from rural areas. According to month wise distribution of cases, findings of our study showed more number of cases between April to July (45.75%). Similar findings are seen in studies by Patel et al.¹¹ and Awdesh et al.⁹

4. Conclusion

Study conducted at Atal Bihari Vajpayee Government Medical College situated in Vidisha. District Hospital

Vidisha is associated with Medical College., to know the profile of medico-legal autopsies during a period of one year from January 2018 to December 2018 comprising a total of 330 medico-legal autopsies. In our study we found that majority of cases were in 3rd decade of life, males outnumbered females, rural residents were more in number, RTA, Poisoning are leading cause of death, among road traffic accidents 2 wheeler accidents were more in number. Maximum number of cases were seen in the period between April-June. This study helps to interpret different types of medico-legal autopsy cases, thereby providing an insight to the policy-makers, law custodians, and the community to look into the specific aspects of the cases and then to take proper measures to reduce mortality.

5. Conflict of Interest

None.

6. Source of Funding

None.

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