



An Autopsy Based Study of Pattern of Homicidal Deaths at S.M.S. Hospital Jaipur During 2020-21

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Abstract

This study conducted during one year of period from 1st Sept. 2020 to 31st Aug. 2021 at Mortuary, the Department of Forensic Medicine & Toxicology, S.M.S. Medical College & Attached Hospital, Jaipur. The study was Hospital Based Prospective Observational study and conducted on Medico-Legal autopsies of homicidal deaths. The aim of this study was to find out the pattern of homicidal deaths autopsied at SMS hospital Jaipur during the study period. Total autopsies was during this period was 4096, out of which 110 cases were homicidal deaths, among which 70 cases were included for study as per calculated sample size. The present study reported predominance of males of 21-40 years age group 39 cases (55.7%). Majority of cases were male 61 cases (87.1%). It also revealed a rural preponderance 51 cases (72.9%) as the rural population is probably more affected than the urban because of the lesser literacy rate. Most offenders were strangers 19 cases (27.25%) but most

victims had been fatally attacked at their own home in rage and heat of the argument. Head injury 42 cases (60%) was the most commonly reported fatal injury in the present study and blunt weapons 39 cases (55.7%) were the most common means for execution of the homicide. Majority of incidents were happened in late evening hours.

Keywords: Homicide, Offenders, Weapon.

Introduction

Homicidal deaths may occur by rash or negligent act of a person or because of an act done with criminal intent towards another person. Killing of a person is the highest level of aggression found in any culture. The World Health Organization (WHO) defines homicide as “any death resulting from injury purposefully inflicted by another person”. Homicide is one of the leading causes of unnatural deaths in most countries including India. The various means used for homicidal deaths include assault by sharp weapon, blunt weapon, firearm, strangulation,

homicidal hanging, smothering, drowning, burns, poisoning etc.

Investigation of a homicidal death can never be complete without a detailed post-mortem examination. The detailed analysis and scientific interpretation of autopsy findings is imperative to reconstruct the crime scene. Autopsy surgeons not only help to draw a conclusion for the cause of death of the victim by studying the dead body and co-relating with the circumstantial evidence, but also help to draw a conclusion about the methods and means employed in these acts along with requisite detailing of the injuries inflicted which plays a determinant role in framing charges in cases. Pattern of homicides are considered as face of society and keep changing with times. Jaipur is the capital city of Rajasthan and since 2015, it is a growing metropolitan which promises various kinds of employment opportunities to people from other states of the country and this, leads to large number of immigrants coming to Jaipur every year, in turn changing its demographic profile to a very great extent, hence also changing its crime profile. So, this study was initiated to observe the pattern of homicidal deaths autopsied at SMS Hospital, Jaipur during 2020-21 to find out the most vulnerable age group, gender, and study the socio-demographic profile of victims of homicides viz socioeconomic status, educational status, occupational status along with the pattern of homicide viz. time and place of occurrence, most common weapon used, type & nature of injury, relationship of offenders with victim, fatal injuries, motive behind etc. and to observe the changes in pattern after a period of about seven years.

Material & Methods

This study was conducted in all cases of deaths due to homicide at the Department of Forensic Medicine,

S.M.S. Medical College & Attached Hospital, Jaipur after taking permission from research review board and institutional ethical committee and completing all due formalities. It is Hospital Based Prospective Observational study on Medico-Legal autopsies of homicidal deaths conducted at Mortuary S.M.S. Hospital Jaipur from 1st September, 2020 to 31st August, 2021. Cases were selected as per Inclusion and Exclusion criteria. After obtaining written informed consent for participation in the study from available near relative of the deceased, relevant details of deceased and incident were filled as per pre designed Proforma by interviewing of available legal heirs and attendants for socio demographic profile, place of crime, motive behind, time of occurrence, victim-offender relationship, if any. And detailed history was obtained from the investigation officer of the police regarding scene of crime, position of body and other relevant details of investigation and circumstantial evidences will be taken. Then medico legal autopsy was conducted and details of injuries and cause of death will be noted. All the details were filled in the Microsoft Excel data sheet to create a master chart of the data. The data was then tabulated and analysed statistically. Results and conclusion were derived.

Figures & Tables

Table 1: Age and gender wise Distribution of cases of homicidal deaths (n=70)

Age (Years)	Gender				Total	p-value
	Female		Male			
	No. of cases	(%)	No. of cases	(%)		
0-20	01	11.1%	07	11.5%	08	0.739
21-40	06	66.7%	33	54.1%	39	
41-60	02	22.2%	14	22.9%	16	
> 60	00	0.0%	07	11.5%	07	
Total	09	100.0%	61	100.0%	70	

Table 2: Distribution of cases of homicidal deaths according to the motive behind the killing (n = 70)

Motive of incident	No. of cases	(%)
Argument/ rage	27	38.6
Revenge	15	21.4
Financial conflicts	09	12.9
Property disputes	08	11.4
Unknown	08	11.4
Infidelity	02	02.9
Mental illness	01	01.4
Total	70	100.0

Table 3: Distribution of cases of homicidal deaths according to the part of body with fatal injury n=70

Pattern of homicide	No. of cases	Percentage (%)
Head	42	60.00%
Abdomen	13	18.58%
Chest	06	08.58%
Neck	03	04.28%
Whole body	03	04.28%
Chest & Abdomen	03	04.28%
Total	70	100.00%



Figure 1: Injury caused by blunt weapon

Results & Discussion

In the present study, 2.68% cases of homicides (n=110) amongst all unnatural or suspected deaths autopsied during the study period at the place of study. This

proportion has very slightly risen over past 7 years when earlier study on homicidal deaths was conducted at mortuary of SMS Hospital, Jaipur Verma LC, et al., Jaipur, 2014 [1] which also reported 2.6% homicidal deaths among all medicolegal autopsies conducted during the study period.

Majority of the cases of homicidal deaths in the present study were young adults in 21 to 40 years age group (55.7%) which was same as Sona wane SS, et al., Western Mumbai, Maharashtra, 2017; Siva Kumar V, et al., Vijaypura, Karnataka, 2020; Rathod VV, et al., Nagpur, Maharashtra, 2020; Rahimi R, et al., Sungai Buloh, Malaysia, 2020; Datta A, et al, Bharatpur, Rajasthan, 2021; Chavan MS, et al., Sion, Mumbai, Maharashtra, 2021; and Slater S and Subramanyam S, Pondicherry, Tamil Nadu, 2021,[2-7 and 8] youngest victim being eleven years old; and, seven cases (10%) were senior citizens (>60 years of age), oldest one of seventy years (TABLE 1).

Males predominated the study as 61 out of 70 cases of homicides were males (87.1%) (TABLE 1). These findings are similar to those of Parmar DJ, et al., Bhavnagar, Gujarat, 2015; Sona wane SS, et al., Western Mumbai, Maharashtra, 2017; Patnaik KK, et al., Behrampur, Orissa, 2017; Mohan M, et al., Kolar, Karnataka, 2018; Taware AA, et al., Pune, Maharashtra, 2018; Buc hade DD, et al, Delhi, 2019; Siva Kumar V, et al., Vijaypura, Karnataka, 2020; Rathod VV, et al., Nagpur, Maharashtra, 2020; Rahimi R, et al., Sungai Buloh, Malaysia, 2020; Datta A, et al, Bharatpur, Rajasthan, 2021; Chavan MS, et al., Sion, Mumbai, Maharashtra, 2021, and Slater S and Subramanyam S, Pondicherry, Tamil Nadu, 2021 [9, 2, 10-13, 3-7 and 8]. M:F ratio was 6.77:1 in the present study which is much higher than 2.47:1 of Parmar DJ, et al., Bhavnagar,

Gujarat, 2015; 2.19:1 Buc hade DD, et al, Delhi, 2019 [9, 13] but similar to 5:1 of Gupta N, et al., Delhi, 2018; and 4:1 of Slater S and Subramanyam S, Pondicherry, Tamil Nadu, 2021 [14, 18]. In both genders, the predominant age group to be affected was 21-40 years young adults {33 males (54.1% of total males & 84.6% of the subgroup).

Majority of the victims of homicide were married (72.9%) and Hindu in the present study. Persons residing in rural regions predominated the study population of cases of homicidal deaths (72.9%) in comparison to persons residing in urban regions (27.1%). Religion, marital status and domicile characteristics findings are similar to those of Rathod VV, et al., Nagpur, Maharashtra, 2020 [4].

Late evening hours were majorly used for the commission of the crime of homicide in the present study (37 cases- 52.9%) and the least number of cases were reported in dark hours in the present study which are more prone to criminal incidents.

Argument and reaction to the heat of the moment were the commonest motive behind the killing in the present study (27 cases- 38.6%) followed by revenge (15 cases- 21.4%). financial conflicts (9 cases- 12.9%) and property disputes (8 cases- 11.4%). Infidelity and mental illness remained the least common reason behind homicides in the present study (2.9% and 1.4% respectively). (Table 2).

Blunt weapons were the most common weapon of offence in the present study (55.7%- 39 cases) followed by sharp weapon in 14 cases (20%). Firearm had been used to kill the victim in 10% cases. Majority of the victims of homicide succumbed to fatal head injuries (51.4%) followed by shock in 31 cases (44.3%). 4.3% (3

cases) died due to asphyxia as two of them were strangulated and one was throttled to death. (TABLE 3)

Conclusions

Homicide is a heinous and detrimental crime for society which is the face of society and must be curbed for welfare of human communities as a whole. The present study reported predominance of males of 21-40 years age group, who are more active and productive members of the society. It also revealed a rural preponderance as the rural population is probably more affected than the urban because of the lesser literacy rate. Lack of education and unemployment were more commonly observed in victims of homicidal deaths who were from lower socioeconomic strata of the society. Most offenders were strangers but most victims had been fatally attacked at their own home in rage and heat of the argument. Homicidal killings were more common in homes and in late evening hours. Head injury was the most commonly reported fatal injury in the present study and blunt weapons were the most common means for execution of the homicide.

References

1. Verma LC, Punia RK, Yadav A. Analysis of homicidal deaths at SMS Hospital, Jaipur- a prospective autopsy study. Medico-legal update. 2014 Dec ; 14 (2) : 72 - 6.
2. Sona wane SS, Sukhdeve RB, Tyagi S, Kollé RS. Autopsy Evaluation of Homicidal Deaths in Western Mumbai Region -2 Years Prospective Study. Sch J App Med Sci. 2017 Dec; 5(12):4840-6.
3. Kumar SV, Tejas J, Shruthi, Kumar S. A Cross Sectional Autopsy based Study of Homicidal Deaths in Vijayapura, Karnataka. Medico-legal Update. 2020 Jul-Sep; 20(3):191-5.
4. Rathod VV, Choudhary UK, Ghor made PS, Keoliya AN. Study of socio-demographic profile of

victims in cases of deaths due to homicide. *Indian J Forensic Community Med.* 2020; 7(2):66-71.

5. Rahimi R, Kasim NAM, Zainun KA, Aazizan NAM, Mansori MA, Kamal NSM, Daud ZZ. Medico-legal autopsies of homicidal deaths: A five-year retrospective study in Hospital Sungai Buloh. *Malays J Pathol.* 2020; 42(1):65-70.

6. Datta A, Rastogi P, Tiwari P, Kautilya V, Singh LP. Pattern of homicidal death in a district hospital of Rajasthan. *Int J Med Toxicol Forensic Med.* 2021; 24(1&2):115-9.

7. Chavan MS, Dere RC, Sawardekar SG, Vats M. Autopsy study of Homicidal Deaths. *Int J Sci Res.* 2021; 10 (2):11-2.

8. Slater S, Subramanyam S. An autopsy study on injuries in homicidal deaths due to weapons. *Indian J Forensic Community Med.* 2021; 8(3):157-60.

9. Parmar DJ, Bhagora LR, Parmar RD, SUV era KM. Recent trends of homicidal deaths in Bhavnagar region- a two year retrospective study. *Int Arch Integr Med.* 2015; 2(8):45-54.

10. Patnaik KK, Das S, Mohanty S, Panigrahi H. Pattern of Isolated Fatal Mechanical Injury in Homicidal Deaths: A Cross-Sectional Study. *J Clin Diagn.* 2017 Sep; 11(9):HC01-04.

11. Murali M, Shreedhara KC, Yadav A, Kumar L. Pattern of Homicidal Deaths in Autopsies Conducted at Rural Tertiary Care Centre. *Indian J Forensic Med Pathol.* 2018 Oct-Dec; 11(4):265-88.

12. Taware AA, Khade RV, Tatiya HS, Jadhav VT, Pun pale SB. Profile of Homicidal Deaths: An Autopsy Based Study. *Indian J Forensic Med Pathol.* 2018 Jul-Sep; 11(3):171-8.

13. Buc hade DD, Bharti R, Amarnath A. Analysis of homicidal cases brought to mortuary of Lok Nayak

Hospital, Delhi: A 3-year retrospective study. *MAMC J Med Sci.* 2019; 5:73-6.

14. Gupta N, Aggarwal NK, Verma SK. Pattern of homicidal deaths in North East Delhi. *Int J Forensic Med Toxicol.* 2018 Jan-Jun; 35(1):70-5.