

Original Article

PROFILE OF HOMICIDAL DEATHS: A THREE YEAR STUDY AT SURAT MUNICIPAL INSTITUTE OF MEDICAL EDUCATION AND RESEARCH, SURAT DURING 2011 -13

Shailesh Jhaveri¹, Sandip Raloti², Rajesh Patel³, Jignesh Brahbhatt³, Vijay Kaushik³

Financial Support: None declared

Conflict of interest: None declared

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How to cite this article:

Jhaveri S, Raloti S, Patel R, Brahbhatt J, Kaushik V. Profile of Homicidal Deaths: a Three Year Study At Surat Municipal Institute of Medical Education and Research, Surat During 2011 -2013. Natl J Community Med 2014; 5(4):406-9.

Author's Affiliation:

¹Associate Professor; ²Assistant Professor; ³Tutor, Department of Forensic Medicine, SMIMER, Surat

Correspondence:

Dr. Shailesh Jhaveri
E-mail: shaileshjhaveri@gmail.com

Date of Submission: 11-09-14

Date of Acceptance: 11-11-14

Date of Publication: 31-12-14

ABSTRACT

Background: This study is done to know different aspects of homicidal deaths such as age and sex of the victim, incidence in various areas, seasonal variation, survival time, types of injuries, body part involved, organs involved, modes of death, homicidal deaths presented as accidental one by investigating officer and post - mortem burns after homicide in Surat city and to compare these aspects with other studies.

Methods: This retrospective study is carried out by analysis of data from post - mortem reports, inquest papers and post mortem registers of the Forensic Medicine and Toxicology Department of SMIMER. The analysis of the data is done manually by calculator and excels spreadsheet of window 8.

Results: Among 4524 autopsies conducted during 2011 -2013, homicidal deaths were 106, i.e. 2.34%. Bulk of the victims was males, i.e. 86.69% while females comprise only 13.21%. Stab wounds and blunt injuries were major injuries responsible for deaths, constitute 41.51% and 40.55% respectively. Multiple regions of the body were involved in 43.4% while brain was the commonest organ to get injured (26.42%) followed by lungs (10.38) and heart (8.49%).

Conclusion: There is slight decreasing trend of homicidal deaths. The incidence has also reduced to less than half over a period of two decades in the city. Asphyxial deaths constitute one out of five homicidal deaths.

Key words: Homicide, injuries, body organs, body regions

INTRODUCTION

Homicide means one human being causes death of another. Not all homicide is murder, as some killings are manslaughter, and some are lawful, such as when justified by an affirmative defence, like insanity or self defence.¹ Homicide has been a most heinous crime known to mankind, right from old civilization to present day, however motives have been changing. It is much more common in countries with low levels of human development, high levels of income inequality and weak rule of law than in more equitable societies, where socio-economic stability seems to

be something of an antidote to homicide.² Women murdered by their past or present male partner make up the vast majority of (female) victims.³ The incidence of homicide has been increasing because of several factors; like stresses of life due to monetary, emotional, health issues etc, psychological disturbances during upbringing of child, negative impact of media and movies etc. This increasing trend is also affected by improvisation and sophistication of weapon of violence as well as its easy availability, cosmopolitanism of urban areas, propagation of religious hatred feelings and terrorism. The present study

throws light on various such aspects related to homicide.

MATERIAL AND METHODS

The present study is carried by analysis of homicidal deaths from January 2011 to December 2013, that were autopsied at Forensic Medicine and Toxicology Department, Surat Municipal Institute of Medical Education and Research (SMIMER), Surat, Gujarat. The data includes cases from approximately half of the area of the Surat city, the remaining half being under jurisdiction of Government Medical College, Surat. The selection criteria for the cases are as follows:

- 1) All cases that were investigated under I.P.C. 302 by investigating officer
- 2) All cases that were investigated as an accidental death by investigating officer but turned to be a homicidal death after post-mortem examination
- 3) Victims from all age groups are included.

Proforma is prepared citing different variables such as age, gender, police station, date, survival time, type of injury, type of asphyxia, region of the body where injuries were inflicted, organs involved, accidental deaths turned out to be homicidal one, marital status, identification status and associated post-mortem burns. These data are collected from post-mortem notes inquest papers and post-mortem registers and analysed manually by calculator and excel spreadsheet of window 8.

RESULTS

106 cases of homicidal deaths were sorted out for this study amongst 4524 total autopsies conducted from 2011 -2013. Among 106 case, 92 (86.79%) were male and 14 (13.21%) were female. It is observed that most commonly affected victims were from 21 - 30 years age group (42.45%) followed by 31 - 40 (24.53%) and 41 - 50 (15.09%) years. Among 21 (19.81%) cases of asphyxial deaths, 14 (66.67%) were of ligature strangulation and 7 (33.33%) were of manual strangulation. Regarding seasonal variation, the incidence of homicide was almost same in summer and monsoon, while in winter it reduced to half. 83.02% of victims died instantly after receiving injuries and 10.38% survived up to 12 hours. The stab injury was most common (41.51%) to cause death followed by blunt injuries (40.55%).

Table 1: Year wise Incidence of homicide

Year	Total cases	Homicide (%)
2011	1279	33 (2.58)
2012	1474	36 (2.44)
2013	1771	37 (2.08)
Total	4524	106 (2.34)

Table 2: Gender wise distribution of cases

Variables	Male	Female	Total Cases
	N=92 (%)	N=14 (%)	N=106 (%)
Marital status			
Married	50 (54.34)	11 (78.57)	61 (57.54)
Unmarried	21 (22.83)	1 (7.14)	22 (20.75)
Not known	21 (22.83)	2 (14.29)	23 (21.71)
Age (Years)			
0 -10	1 (1.09)	1 (7.14)	2 (1.89)
11-20	10 (10.87)	0 (0)	10 (9.43)
21 - 30	39 (42.39)	6 (42.86)	45 (42.45)
31 - 40	22 (23.91)	4 (28.57)	26 (24.53)
41 - 50	16 (17.39)	0 (0)	16 (15.09)
51 - 60	2 (2.17)	2 (14.29)	4 (3.77)
> 60	2 (2.17)	1 (7.14)	3 (2.83)

Table 3: Distribution of cases according to type of Asphyxial deaths

Type of asphyxia	No of cases (%)
Ligature strangulation	14 (66.67)
Manual strangulation	7 (33.33)
Total	21 (100)

Table 4: Season-wise distribution of cases

Season	2011	2012	2013	Total (%)
Summer (March-June)	15	14	13	42 (39.62)
Monsoon (July-Oct.)	11	15	15	41 (38.68)
Winter (Sept.-Feb.)	7	7	9	23 (21.70)
Total	33	36	37	106 (100)

Table 5: Survival period after infliction of injury

Survival period	2011	2012	2013	Total (%)
Instant	28	34	26	88 (83.02)
<12 hours	3	0	8	11 (10.38)
> 12 - < 24 hours	0	0	1	1 (0.94)
>1 - < 3 days	1	1	1	3 (2.83)
>3 - < 7 days	1	1	1	3 (2.83)
>7 days	0	0	0	0 (0)
Total	33	36	37	106 (100)

Only 3 (2.83%) cases of firearm injuries had been reported. Amongst single body - region involved, neck was the softest target (16.98%) followed by head (15.9%) and chest (10.38%), however, involvement of multiple body - region were found in 43.4% of cases. Being the most vital part of the body, brain was the commonest

organ to get injured (26.42%) followed by lungs (10.38%) and heart (8.49%). Kidneys were not injured in single case of homicide because of its safe posterior location. 69% of homicides were reported from limbayat, varachha, puna, amroli and kapodra police stations. 13 cases (12.26%) had been reported as accidental deaths by investigating officer turned out to be homicidal deaths after post-mortem examination. In 2 cases of murder, the accused had tried to conceal crime by inflicting post - mortem burns over the body.

Table 6: Distribution of cases according to type of injuries

	Cases N=106 (%)
Types of Injuries*	
Stab wound	44 (41.51)
Incise wound	23 (21.70)
Chop wound	8 (7.55)
Blunt	43 (40.55)
Sharp + blunt wounds	8 (7.55)
Firearm	3 (2.83)
Organ Involved	
Brain	28 (26.42)
Lungs	11 (10.38)
Heart	9 (8.49)
Vessels	8 (7.55)
Stomach	6 (5.66)
Intestines	6 (5.66)
Liver	5 (4.71)
Spleen	3 (2.83)
Pancreas	2 (1.89)
Testis	1 (0.94)
Kidneys	0 (0)
Multiple organs	20 (18.87)
Region of body	
Multiple regions	46 (43.4)
Neck	18 (16.98)
Head & face	16 (15.09)
Chest	11 (10.38)
Both chest & abdomen	7 (6.6)
Abdomen	6 (5.66)
Extremities	1 (0.94)

* 23 cases were having Multiple type of injuries

DISUSSION

During 2011 – 2013, total 4524 autopsies were conducted at Forensic Medicine and Toxicology department, SMIMER, out of which 106 cases were homicidal deaths, which comprises 2.34 %. There is gradual increase in number of autopsies conducted, but the number of homicidal deaths has been reducing slightly. Among the total homicidal cases brought for post-mortem examination, 96 (90.57%) victims were presented as identified person by investigating officer while

10 (9.43%) deceased could not be identified at the time of post-mortem examination. During 2011 – 2013, there is a gradual increase in number of male victims, that is 26 (78.78%), 31(86.11%) and 35 (94.59%) respectively, while reverse trend is seen in case of female victims, that is 7 (21.22%), 5 (13.89%) and 2 (5.41%) respectively.

The important finding of the study is the commonly affected age group of victims, which is 21 - 30 (42.45%) followed by 31 - 40 (24.53%) and 11 - 20 (9.43%), and correlates with many previous studies such as Iliyas sheikh⁴ (1993), R.Y. Padamraj⁵ (2010), Pranav Prajapati⁶ (2010) Pradeep K. Mishra⁷ (2012). The high incidence of age group 21-30 for being victim of homicide may be due to person in this age group are more aggressive, short tempered, and least tolerant. There is a male predominance in most of the age groups.⁴⁻¹⁵

Seasonal variation shows highest incidence in summer and consistent with finding of R.Y. Padamraj⁵ (2010), Pradeep K. Mishra⁷ (2012), and Iliyas Sheikh⁴ (1993) while Sinha U.S. reported maximum homicidal deaths in rainy season (45.33%) followed by winter (34.67%) and least in summer (20%).⁸

Maximum number of victims, 88 (83.02%) died instantly while not even single victim survived for a week. This may be due to use of improvised and sophisticated weapons, multiple injuries over multiple regions of the body.

So far as type of injury is concerned stab wound (41.51%) was the most common to cause death followed by blunt injuries (40.55%) and consistent with finding of Iliyas Sheikh⁴ (1993), R.Y. Padamraj⁵ (2010), Pradeep K. Mishra⁷ (2012). Being less popular than in other states, firearm was responsible for death only in 3 cases (2.83%).

It is evident that involvement of multiple body regions is maximum in present study (41.3%) followed by neck (16.98%) and head (15.09%) while brain was most commonly injured (26.42%) followed by lungs (10.38%) and heart (8.49%).^{10-11,13-14} These findings show the intention of the assailants because these are the most vital organs of the body known even to lay man.

High incidence of homicidal death (69%) in limbayat, varachha, puna, amroli and kapodra police stations may be due to living of mixed people from all over India and Gujarat in these areas.

Lastly two unique findings of this study to be

mentioned are 13 cases (12.26%) had been reported as accidental deaths by investigating officer turned out to be homicidal deaths after post-mortem examination and accused had tried to conceal crime by inflicting post - mortem burns over the body in two cases.

CONCLUSION

There is slight decreasing trend of homicidal deaths during the period of study even though number of total autopsies had increased. The incidence has also reduced to less than half over a period of two decades in the city. Because of Post mortem examination, 13 cases had been turn out to be homicidal deaths, though it was reported as accidental deaths. Being most vital body-organs, brain, lungs and heart were most commonly injured. Asphyxial deaths constitute one out of five homicidal deaths.

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