

Study of Characteristics of Victims and Alleged Accused in Cases of Deaths Due to Homicide

Vinod Vasant Rathod¹, Umesh Kumar Choudhary², Pankaj Suresh Ghormade³,
Ajay Narmadaprasad Keoliya⁴

¹Assistant Professor, Department of Forensic Medicine and Toxicology, Dr V. M. Government Medical College, Solapur, Maharashtra, ²Professor, Department of Forensic Medicine and Toxicology, American International Institute of Medical Sciences, Udaipur, Rajasthan, ³Professor, Department of Forensic Medicine and Toxicology, AIIMS Raipur, ⁴The Dean, Professor, and Head. (Presently Retired from Government service), Dept. of Forensic Medicine & Toxicology, Indira Gandhi Government Medical College Nagpur, Maharashtra India.

How to cite this article: Vinod Vasant Rathod, Umesh Kumar Choudhary, Pankaj Suresh Ghormade et. al. Study of Characteristics of Victims and Alleged Accused in Cases of Deaths Due to Homicide. Indian Journal of Forensic Medicine and Toxicology/Volume 19 No. 1, January - March 2025.

Abstract

Aims and Objectives: Homicide is a cruel act of mankind. It reveals one of the darkest sides of the society. Homicidal crimes represent a reasonable proxy for all different kinds of violent crimes in general. The study aimed to find out the different characteristics of victims and perpetrators i.e. alleged accused in homicidal deaths

Materials and Methods: The present prospective study was carried out on 179 homicidal deaths at the Department of Forensic Medicine and Toxicology of Indira Gandhi Government Medical College, Nagpur from January 2013 to October 2014.

Observation and Results: Male victims were most commonly attacked by acquaintances in 33 (18.44%) cases whereas females were by their husbands or In-laws in 13 (7.26%) cases. Maximum homicidal attacks 54 (30.17%) occurred at or near the victim's house. Males were common victims due to quarrels whereas females due to illicit sexual relationships. Sharp and pointed weapons were most commonly used. Maximum victims 125 (69.83%) died at the place of homicidal attack.

Conclusions: Males outnumbered females in all aspects of Homicidal deaths. A specific pattern was observed which could help police investigating authorities in tracing out characteristics of victims and assailants in homicidal deaths reported shortly.

Keywords: Homicide, Acquaintances, Motive, Place of incidence, Weapons.

Introduction

Homicidal deaths can be considered the "TIP OF THE VIOLENCE ICEBERG" as the Majority of

violent crimes are not recorded or notified. As per the Judicial system in India, Homicide is classified into: 1) Lawful; (i) Justifiable, (ii) Excusable. 2)

Corresponding Author: Vinod Vasant Rathod, Assistant Professor, Department of Forensic Medicine and Toxicology, Dr V. M. Government Medical College, Solapur, Maharashtra.

E-mail: vinod84.rathod@gmail.com

Submission date: August 25, 2024

Revision date: November 11, 2024

Published date: December 3, 2024

This is an Open Access journal, and articles are distributed under a Creative Commons license- CC BY-NC 4.0 DEED. This license permits the use, distribution, and reproduction of the work in any medium, provided that proper citation is given to the original work and its source. It allows for attribution, non-commercial use, and the creation of derivative work.

Unlawful; (i) Murder (S. 300 IPC), (ii) Culpable homicide (S. 299 IPC); (a) Amounting to murder, (b) Not amounting to murder (S. 304 IPC). 3) Rash and negligent homicide (S. 304 A IPC) [1]. In 2023 older versions of the Indian Penal Code IPC have been replaced by the Bhartiya Nyaya Samhita (BNS Act). Accordingly, cases of Homicidal deaths are included under Section 101 of Bhartiya Nyaya Sanhita, 2023 (BNS)[2].

Homicidal crime rate data is the most representative and comparable crime indicator[3]. Death can be caused violently by mechanical injuries by weapons, violent asphyxia, thermal injuries, firearm injuries, etc as reported in Forensic literature[4,5,6,7].

It is a cruel act of mankind and reveals one of the darkest sides of society. Therefore, Homicidal crimes represent a reasonable proxy for all different kinds of violent crimes in general.

Studies done in India and Globally[8,9,10,11,12,13,14] have revealed factors associated with assaults ultimately resulting in the death of an individual. Also, the easy availability of lethal weapons has increased incidences of homicide nowadays. Hence, the present study has been done to explore different epidemiologic profiles of victims and alleged accused to help law enforcement agencies investigate the cause and manner of death for the proper administration of justice in the court of law.

Aim and Objectives:

- To study the Victim-Assailant relationship.
- To study the number of perpetrators per incident.
- To study the motive and places of incidence selected by assailants in executing their homicidal attacks on victims.
- To study the alleged type of weapon used for assaults.
- To study the survival period and presence of alcohol or drugs on post-mortem.

Material and Methods

Prospective research was conducted at the Department of Forensic Medicine in central India from January 2013 to October 2014. The Institutional and Maharashtra University of Health Sciences, Nashik ethical committees [Letter No MUHS/PG-T/E 1/FL.42/2706/2013 dated 21-09-13] approved the study protocol.

During the study period, 179 cases of homicide were reported. In every case, detailed information was gathered from the police Inquest and the treatment records. Factors like age, sex, place of occurrence, motive, alleged weapon used, and victim-assailant relationship were taken into consideration. Relevant information was also collected from the relatives of the deceased.

Detailed post-mortem examination of the body was done to know the alleged type and kind of weapons used for assault and emphasis was given on evidence of alcohol consumption or drug intoxication. Detailed information indicative of the alleged place of occurrence was obtained and a crime scene visit was organized in suspicious cases. Proper follow-up of these cases was done later on to rule out cases in which the alleged manner of death was not due to homicide. Also, reports of Forensic science laboratory (FSL) chemical analysis, Queries put forward regarding injury patterns, weapons brought for examination by police investigating authorities, and final opinion as to the cause of death were taken into consideration.

Statistical Analysis:

Statistical analysis was done using descriptive and inferential statistics using the Chi-square test. The software used was SPSS 17.0 version and GraphPad Prism 5.0 version; $p < 0.05$ is considered a significance level.

Observations and Results

A total of 3412 autopsies were conducted during the study period, out of which 179 (5.24%) cases were of alleged homicide.

Table 1: Victim-Assailant relationship

Assailant relationship with the victim	Number of victims		Total no. of incidents (%)	χ^2 -Value
	Males	Females		
Acquaintances	33(18.44%)	3(1.68%)	36(20.11%)	32.98 p=0.000,S
Friends	28(15.64%)	2(1.12%)	30(16.76%)	
Spouse /In-laws	9(5.03%)	13(7.26%)	22(12.29%)	
Siblings	7(3.91%)	4(2.23%)	11(6.15%)	
Neighbours	5(2.79%)	1(0.56%)	6(3.35%)	
Others/unknown	65(36.31%)	9(5.02%)	73(40.78%)	
Total	146(81.56%)	32(17.87%)	179(100%)	

In 73 (40.78%) cases, no victim-assailant relationship existed, the relationship could not be traced properly, or the relationship was not known, which included 65 (36.31%) males and 9 (5.02%) females.

Table 2: Number of perpetrators (alleged accused) per incident

Sr no	No of assailants	No of incidents	The victim	
			Male	Female
1	One	64(35.75%)	47(26.26%)	17(9.50%)
2	Two	21(11.73%)	16(8.94%)	5(2.79%)
3	Three	14(7.82%)	13(7.26%)	1(0.56%)
4	Four	2(1.12%)	2(1.12%)	0(0%)
5	Five	3(1.68%)	2(1.12%)	1(0.56%)
6	≥ five	7(3.91%)	7(3.91%)	0(0%)
7	Unknown	68(37.99%)	59(32.96%)	9(5.03%)
χ^2 -Value	8.10,p-value=0.23,NS,p>0.05			

Table 3: Place of incidence in cases of homicide

Place of incidence	Male	Female	Total (%)
Inside or near the victim's house	32(17.88%)	22(12.29%)	54(30.17%)
Inside or near the assailant's house	7(3.91%)	2(1.12%)	9(5.03%)
Combined victim's and assailant's house	6(3.35%)	1(0.56%)	7(3.91%)
Outdoor (Road/Street side)	45(25.14%)	3(1.68%)	48(26.82%)
On or around the railway track	8(4.47%)	1(0.56%)	9(5.03%)
Workplace	11(6.15%)	2(1.12%)	13(7.26%)
Remote area	11(6.15%)	1(0.56%)	12(6.70%)
Forest area	8(4.47%)	0(0%)	9(5.03%)
In water source (river, lake or drainage)	6(3.35%)	0(0%)	6(3.35%)
Others	12(6.70%)	0(0%)	12(6.70%)
Total	147(82.12%)	32(17.88%)	179(100%)

Bodies of 06 males were found in and around a water source, three on the banks of the river, two inside a well, and one in the drainage area. In such cases, cause of death was stab injuries, head injuries, and strangulation.

Four female bodies after the possible sexual assault were found two at the victim's residence, one in the outskirts farmhouse area, and one around the railway track. Bodies of two female infants were found in a forest area and one female infant was strangled and thrown in a garbage area.

Table 4: Motive behind homicidal attacks by the assailants

Motive of Accused	No of Victims	Percentage (%)
Quarrel	47	26.26
Enmity	46	25.70
Elicit relationships	22	12.29
Familial disputes	8	4.47
Property disputes	13	7.26
Robbery	7	3.91
Financial problems	11	6.15
Unknown	61	34.08

Males were common victims due to quarrels whereas sexual assault or illicit sexual relationships were the principal motive behind homicidal attacks on females.

Table 5: Type of weapons used by assailants

Weapon/object	Number of cases	Percentage (%)
Blunt and hard	51	28.49
Sharp and pointed	56	31.28
Sharp and heavy	32	17.87
Combined blunt and sharp	11	6.14
Ligature material	19	10.61
Firearm	3	1.67

Sharp and pointed weapons were most commonly used in 56 (31.28%) cases followed by hard and blunt in 51(28.49%) cases. Sharp weapons commonly used were knife 37 (20.67%), gupti 18 (10.05%) and axe in 9 (5.02%) cases. Hard and blunt weapons commonly used in this area were stones 29 (16.20%), bricks 15 (8.37%), bamboo sticks 12 (6.70%), iron rods 11 (6.14%), etc.

Table 6: Survival period of victims

Moment of death		Number of cases		Total
		Males	Females	
Death on the spot / on the way to hospital		97(54.19%)	28(15.64%)	125(69.83%)
Hospitalized Victims	0-6 hours	7(3.91%)	2(1.12%)	9(5.03%)
	6-24 hours	34(18.99%)	1(0.56%)	35(19.55%)
	1-7 days	5(2.79%)	1(0.56%)	6(3.35%)
	>7 days	4(2.23%)	0(0%)	4(2.23%)
Total		147(82.12%)	32(17.88%)	179(100%)

Blunt weapon injuries were common in spot-dead victims and sharp weapons in admitted cases.

In all such cases, stomach contents, blood, and other routine viscera were sent to the forensic science laboratory for chemical analysis.

A detailed history of incidence was recorded to know about the associated use of alcohol or drug abuse in these cases. Victims' postmortem findings suggestive of the presence of the smell of alcohol and its chemical analysis reports obtained later on and in cases of known accused related to homicidal attacks depending on the information provided by the police officials about alcohol consumption at or before the incidence was taken into consideration.

Acute alcoholism or drug abuse was seen in 39.67 % of cases of accused (based on information provided in police Inquest) and 16.20 % of cases of

victims (based on post-mortem findings and chemical analysis reports) of homicide.

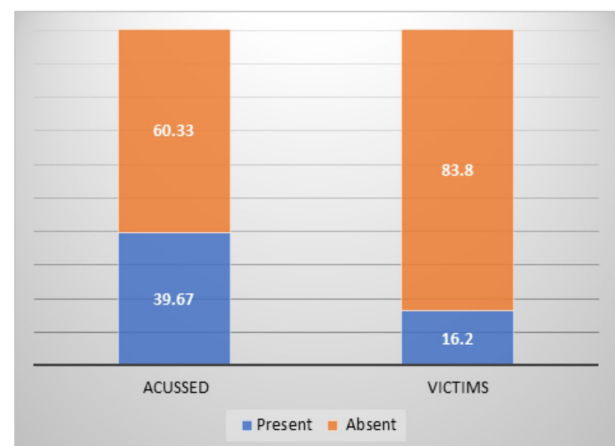
**Figure 1: Percentage wise distribution of cases according to detection of Alcohol or drugs.**



Figure 2 (a): Weapon of offense and body of a victim at the crime scene.



Figure 2 (b): A close-up view of a chop wound caused by a spade as shown in photograph number (2).

Discussion

Sudden provocation or momentary rage due to conflicts between the victim and the assailant was responsible for a maximum number of deaths. Victims were assaulted by one or two assailants mainly due to old rivalry, quarrels, or sudden provocation.

Similar findings were reported in studies of Huggar BS et al^[8], in the Western world (strangers) Henderson JP et al^[9], (close family members) in the study of Scott KW et al^[10], Drawdy SM et al^[11], Ambade VN et al^[12], Bahera C et al^[13], Shivkumar BC et al^[14] (family member), Mada P et al^[15], Viz et al^[16] and by Cros J et al^[17].

In most cases of homicide outdoors, sharp weapons were commonly used whereas at victims' homes as a result of quarrels hard and blunt objects were preferably used. This corroborates the police history of premeditated assault or assault at the spur of the moment resulting from a quarrel.

Huggar BS et al^[8] (33.25%), Shivkumar BC et al^[14] 50%, Chaurasiya N et al^[18], Viz A et al^[16] 49.4%, Kidd SH et al^[19] (kitchen knives), Butt WHK et al^[20] (57.14%), Au Ki et al^[21] (141 cases) He M et al^[22] 36.7%, Karn A et al^[23] 36% reported similar findings of injuries by sharp cutting weapons for assault in homicidal deaths as seen in our study.

Observations in our study were inconsistent with Gupta S et al^[24] 82 cases (42.49%), Kominato Y et al^[25] 38.1% in Japan, Patel DJ et al^[26] 30 (37.97%), Buchade D et al^[27] 138 (37.2%), Singh OG et al^[28] and Bhupinder S et al^[29] 46% and Ambade VN et al^[30] wherein blunt weapons more commonly used than sharp weapons in homicidal deaths.

Firearms injury deaths were most common in studies done by Drawdy SM et al^[11], Preti A et al^[31] in Italy, Patowary AJ et al^[32], and Meel BL et al^[33], Cros J et al^[17] 37%, Obiorah CC et al^[34], Catanessi R et al^[35] 33.8 %, Kohli A and Aggarwal NK^[36] and Fine PR et al^[37]. Observations in the present study were inconsistent with the above studies because in this metropolitan city, firearm-related laws are strict, and firearm weapons are not easily available.

It may be that a male assailant tends to choose a blunt weapon in preference to a sharp one while assaulting a woman because he believes that he doesn't need a weapon in a conflict with a woman. After all, she is less strong. Alternatively in assaults involving men sharp weapons may be used to gain an advantage over an opponent of roughly equal strength thereby producing more open and penetrating wounds.

In the present study, 125 (69.83%) victims died on the spot. The survival period of victims depended on severity, site, and type of injuries. Where the number of assailants was more, multiple injuries were present and the survival period was shorter and vice versa. Similar results were obtained in studies done by Mishra PK et al^[38] (76.1%), Huggar BS et al^[8] (82.5%), and Shah JP et al^[39] (74%).

Acute alcoholism or drug abuse was seen in 39.67 % of cases of accused and 16.20 % of cases of victims. Chemical analysis reports were found to be positive for alcohol in studies done by Mohite PM et al^[40] in 17.6% of cases, Mohanty S et al^[41] 30.23 % and Cros J et al^[17] 48.5 %.

The risk of homicidal attack by the assailant on the victims increases for both genders with alcohol consumption and it depends on the number of alcohol units consumed in a drinking session.

Summary and Conclusions

- Most assailants were males who executed their homicidal attack at the victim's home.
- Most victims died on the spot of a homicidal attack.
- Maximum incidences were at the victim's house and attacks on males were common outdoors whereas on females indoors.
- Quarrel, enmity, and marital conflicts were the main motives.
- Acute alcoholism played a major role in interpersonal violence.

Suggestions:

The present research work was confined to areas with the majority of slums and lower socio-economic strata of the population. Hence results derived can be applied in any region throughout India or Globally. Forensic Science Laboratory experts and Police authorities can be guided properly in searching for accused persons if they collaborate with an Autopsy surgeon and Psychiatrist.

Sources of funding: NIL

Conflict of interest: NIL

References

1. Modi JP, Mathiwaran K, Patnaik AK. Medico-legal aspects of wounds. In Modi's Medical Jurisprudence and Toxicology. 23rd ed, Second reprint. New Delhi. LexisNexis Butterworths. 2008; pp - 763-764,769.
2. The Gazette of India Extraordinary, part II. The Bhartiya Nyaya Sanhita, 2023 No. 45 Of 2023. Ministry of Law and Justice (Legislative Department) New Delhi, The 25th December 2023 / Pausa 4, 1945.
3. Zanzrukiya K, Tailor C, Chandegara P, Govekar G, Patel U, Parkhe S. Profile of homicidal death cases at Government Medical College & New Civil Hospital, Surat. Int. J Med Sci Public Health 2014; 3: 885-888.
4. Vij K. Injuries (Medico-Legal considerations and types). In Text Book of Forensic Medicine and Toxicology: Principles and Practice. 2nd ed. New Delhi. B I Churchill Livingstone Pt. Ltd. 2002; p. 363-399.
5. Reddy KSN. Medicolegal aspects of wounds. In The Essentials of Forensic Medicine and Toxicology by Reddy KSN. 31th Ed. Hyderabad. Om Sai Graphics. 2012.
6. Nandy A. Injuries - Legal considerations and types. In Principles of Forensic Medicine. 2nd ed. Calcutta. New Central Book Agency Pvt. Ltd. 2000; p. 201-208.
7. Parikh CK. In Parikh 's Text Book of Medical jurisprudence, Forensic Medicine and Toxicology for Classrooms and Courtrooms, CBC Publishers and Distributors, New Delhi, 1990; 6th Ed: 2.1pp, 3.51pp, 4.23pp.
8. Hugar BS, Chandra YPG, Harish S, Jayanth SH: Pattern of Homicidal Deaths, J Indian Acad. Forensic Med, 32(3).
9. Henderson JP, Morgan SE, Patel F, Tiplady ME Journal of Clinical Forensic Medicine Volume 12, Issue 3, Pages 128-132, June 2005
10. Scott KW - 'Homicide patterns in the West Midlands' - Med (Torino). 2000 Nov; 100(5):310.
11. Drawdy SM and Myers WC: 2004: Homicide Victim/ Offender Relationship in Florida Medical Examiner District 8. J Forensic Sci, Jan. 2004, Vol. 49, No. 1.
12. Ambade VN, Godbole HV, Kukde HG: Suicidal and homicidal deaths: A comparative and Circumstantial approach. J Forensic Leg Med. 2007 Jul; 14(5):253-60. Epub 2006 Oct 18.
13. Behera C, Rautji R, Lalwani S, Dogra TD: Elder Homicide: A 10-Year Retrospective Study from South Delhi, Indian Journal of Gerontology 2007, Vol. 21, No.4. pp 362-367.
14. Shivakumar BC, Vishwanath D, Srivastava PC. Trends of Homicidal Deaths at a Tertiary Care Centre Bengaluru, J Indian Acad. Forensic Med. April-June 2011; Vol. 33, No. 2.
15. Mada P, Krishna PH: A Comprehensive Study on Homicidal Deaths in Hyderabad, J Indian Acad. Forensic Med. October-December 2013, Vol. 35, No. 4
16. Vij A, Menon A, Menezes RG, Kanchan T, Rastogi P: A retrospective review of homicides in Mangalore, South India. J Forensic Leg Med. 2010 Aug; 17(6):312-5.
17. Cros J, Alvarez JC, Sbidian E, Charlier P, Lorin de la Grandmaison G: Homicidal deaths in the Western suburbs of Paris: a 15-year-study. Am J Forensic Med Pathol. 2012 Dec; 33(4):404-9.
18. Chaurasia N, Pandey SK, Mishra A: An Epidemiological Study of Violent Asphyxial Death in Varanasi Region (India) a Killing Tool, J Forensic Res 2012, 3:10

19. Kidd SH, Hughes NS, Crichtons JHM: Kitchen knives and homicide: A systematic study of people charged with murder in the Lothian and borders regions of Scotland. *Medicine Science and the Law* 2014 Vol 54(3):167-173.
20. Butt WHK, Khushboo H: Incidence of deaths due to lethal sharp weapon injuries *UniqueResearch Journal of Medicine and Medical Sciences* Vol. 1(4), pp. 044-048, October, 2013
21. Au KI, Beh SL: Injury patterns of sharp instrument homicides in Hong Kong. *Forensic Sci Int.* 2011 Jan 30; 204 (1-3):201-4.
22. He M, Li WC, Sun DM, Ma KJ, Zhao ZQ, Li BX, Li L: Epitome of China's Unnatural Deaths: A Historically Retrospective Study of Forensic Autopsy Cases in Shanghai Public Security Bureau From 1990 to 1999. *Am J Forensic Med Pathol.* 2014 Jul 31.
23. Karn A, Jha S, Yadav BN, Thakur D: Medicolegal Study of Suspected Homicide Cases in a Teaching Hospital in Eastern Nepal, *Health Renaissance*, January-April 2011; Vol 9 (No.1):15-19. Homicide cases in eastern Nepal.
24. Gupta S, Prajapati P, Kumar S: Victimology of Homicide: Surat, (South Gujarat) based Study, *JIAFM*, 2007 29 (3); ISSN: 0971- 0973
25. Kominato Y, Shimada I, Hata N, Takizawa H. Homicide patterns in the Toyama Prefecture, Japan. *Med.Sci. Law* (1997) vol.37. no.4.
26. Patel DJ: 2012 Analysis of Homicidal Deaths in and Around Bastar Region of Chhattisgarh, *J Indian Acad. Forensic Med.* April-June 2012, Vol. 34, No. 2.
27. Buchade D, Mohite S: Pattern of Injuries in Homicidal Cases in Greater Mumbai, A Three-Year Study *J Indian Acad. Forensic Med.* Jan-Mar 2011, Vol. 33, No. 1
28. Singh OG, Gupta BD: Evaluation of Mechanical Injuries in Homicidal Deaths (A retrospective study of 5 years), *JIAFM*, 2007 29 (3); ISSN: 0971- 0973
29. Bhupinder S, Kumara TK, and Syed AM: Pattern of homicidal deaths autopsied at Penang Hospital, Malaysia, 2007-2009: a preliminary study, *Malaysian J Patho.* 2010; 32(2): 81 – 86.
30. Ambade VN, Godbole HV: Comparison of wound patterns in homicide by sharp and blunt force. *Forensic Sci Int.* 2006 Jan 27; 156(2-3):166-70. E. Pub 2005 Aug 24.
31. Preti A, Miotto P. 2000. Death by Homicide in Italy, 1980-1994: Age and Gender Differences among Victims, *Medicine, Science and Law*, 40(3): 233-240.
32. Patowary AJ. Study of the pattern of injuries in homicidal firearm injury cases. *JIAFM*, 2005: 27 (2). ISSN 0971-0973
33. Meel BL - 'Homicide trends in the Mthatha area between 1993 and 2005' - *S Afr. Med J.* 2008 Jun;98(6):477-80
34. Obiorah CC, Atanda AT: Influence of Socio-Cultural Factors on Homicide: The Nigeria Case Study. *J Forensic Res* 4: 186.
35. Catanesi R, Carabellese F, Troccoli G, Candelli C, Grattagliano I, Solarino B, Fortunato F. Psychopathy and weapon choice: A study of 103 perpetrators of homicide or attempted homicide. *Forensic Science International* 209 (2011) 149-153.
36. Kohli A, Aggarwal NK: Firearm fatalities in Delhi, India. *Leg Med (Tokyo).* 2006 Oct;8(5):264-8. E. Pub. 2006 Sep 11.
37. Fine PR, Roseman JM, Constandinou CM, Brissie RM, Glass JM, Wrigley JM. "Homicides among black males in Jefferson County, Alabama 1978-1989." *Journal of Forensic Sciences*, JFSCA Vol.39, No .3, May 1994, pg.674-684.
38. Mishra PK, Yadav J, Singh S, Dubey BP: Pattern of Injuries in Homicidal Deaths in Bhopal Region, *J Indian Acad. Forensic Med.* July-September 2012, Vol. 34, No. 3
39. Shah JP, Vora DH, Mangal HM, Chauhan VN, Doshi SM, Chotaliya DB: Profile of Homicidal Deaths in and around Rajkot Region, Gujarat, *J Indian. Forensic Med.* Jan-March 2013, Vol. 35, No. 1.
40. Mohite PM, Mohite DP, Dixit PG, Anjankar AJ, Keche AS (2013) Autopsy Evaluation of Defence Wounds in Homicidal Death in Central India. *J Forensic Res* 4: 205.
41. Mohanty S, Mohanty SK, Patnaik PK: Homicide in southern India. A five-year retrospective study, Vol.1, No.2, 18-24 (2013) *Forensic Medicine and Anatomy Research.*