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AUTOPSY STUDY OF HOMICIDAL DEATHS

Forensic Medicine

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ABSTRACT

We conducted a cross sectional study at the institutional morgue between August 2016 till July 2018, of all dead bodies of homicidal deaths brought for medico-legal post-mortem examination, registered under IPC 302. An all relevant socio-demographic details were collected using accompanying documents and hospital records (if admitted conclusion drawn from postmortem findings.

In our study, out of 80 study samples, 75% (n=60) were Males, with majority from Hindu religion. The incidence of homicide was 1.57%. Most of them belonged to lower socioeconomic strata. Alcohol and drug consumptions, smoking were the most common addictions were common in the victims. Single assailant was common, and most of the causes were trivial arguments or family matters. Blunt weapon injury (n=42) was more common than sharp weapons (n=25) and ligature (n=9). Hemorrhage and shock (n=30) followed by head injury (n=25) were the leading cause of death. Upper half of body above the diaphragm sustained most of injuries compared to lower half of body. The characterization of such factors will help in better planning to reduce the incidence of populations to commit homicides and improve safety parameters for victims of homicides.

KEYWORDS

INTRODUCTION:

Culpable homicide as per section 300 Indian Penal Code[1] is defined as causing death of person by another person with a malice aforethought. The murder rate in India has been decreasing gradually and was lowest in 2017 at 2.49 per lakh of population as reported by NCRB.[2] Regional variations exist through the country and is further affected by religion, economic status, gender, motives and any psychological factors of the assaulter. Our study aims to characterize the sociodemographic factors in homicidal cases presented to us during study period.

Study Design:

A cross sectional study carried out in the department of forensic medicine and toxicology of a tertiary care center at Mumbai from August 2016 to July 2018. The sample for this study includes all dead bodies of homicidal deaths brought for medico-legal post-mortem examination. The details pertaining to the age, marital status, educational qualification, and socio-economic status will be collected from the relatives of the deceased, inquest with accompanying documents and hospital records (if admitted). All cases studied with reference to history obtain from relatives, police, hospital record and conclusion drawn from post mortem findings.

a) Inclusion Criteria

i. All autopsy cases with history of homicide brought to Sion hospital morgue i.e. registered IPC 302 cases.
ii. All cases of accidental death that turned homicidal after postmortem.

b) Exclusion Criteria:

i. Unclaimed deceased.
ii. Decomposed bodies

RESULTS:

Out of 80, there were 20 (25%) females and 60 (75%) males in the present study, with majority 40 (50 %) of victims were Hindu followed by 35 (43.8 %) Muslims and 1 (1.3 %) Christian. All victims were semiskilled or unskilled lower middle class (63) workers with few upper middle class (8) including one case of doctor and engineer each. Assailant of deceases mostly were known person, friend or colleague and place of assault mainly over street or shared residence with victim.

In most of homicide blunt weapon (42) was used followed by sharp one (25) and ligature (9). 39 victim died on the spot while remaining 41 those who survived at after assault 18 (22.5%) died within <24 hour and 17 (21.3%) in >5 days. Rigor mortis was present in 78 victims while doing post mortem; one victim was having decomposed and emaciated body each. Discharge from mouth (9), nose (12) and ear (4) present in some victims. Details of external and internal injuries while doing post mortem were as per the table below.

External injury	Head	Face	Neck	Thorax	Abdomen	Back	Upper limb	Lower limb	Genital
Abrasion	10	24	6	10	3	5	24	13	-
Contusion	4	10	4	6	3	4	14	4	1
Laceration	22	12	-	2	-	-	4	3	2
Incised wound	3	10	3	6	5	3	9	5	-
Stabbed wound	1	4	4	10	13	3	5	6	-
Fracture	-	1	-	-	-	-	-	1	-
Burn	-	1	2	2	2	2	2	2	1
Ligature mark	-	-	9	-	-	-	-	-	-
Firearm wound	-	-	-	1	-	-	-	-	-
Surgical wound	-	-	-	-	1	1	-	-	-
NAD	48	40	57	51	59	66	41	54	77

Internal injury among homicide victim								
Organ	Finding	(n)	Organ	Finding	(n)	Organ	Finding	(n)
Scalp	USH	40	Neck	HF	3	Lungs	Edema	5
Skull	Fracture	22		MH	7		Firearm	1
Meninges	EDH	2		TC	1		Contusion	10
	SDH	18		TF	1		IPH	1
	SAH	28	Spine	Fracture	2	Pericardium & heart	Contusion	1
	Torn	1	Thorax wall rib	Fracture	5		Stabbed	3
Brain	Contusion	19		Firearm	1		Firearm	1
	Laceration	2		Stabbed wound	5	Abdomen cavity	Bleed	1
	Edema	11	Thorax cavity	Bleed	11	Liver	Stabbed wound	6
Stomach	Stabbed wound	2	Intestine	Resection	2		Contusion	2

Kidney	Stabbed wound	2		Stabbed wound	6		Laceration	5
	Contusion	1	Spleen	Contusion	1	Pancreases	Contusion	1
	Laceration	2		Laceration	2		Laceration	1
Esophagus	Surgical wound	1	Abbreviations: USH- Under scalp hematoma, EDH – Extradural hematoma, SDH – Subdural hematoma, SAH – Subarachnoid hemorrhage, HF – Hyoid bone fracture, MH – Muscle hematoma, TC – Thyroid cut, TF – Froth in trachea, IPH – Intrapulmonary hemorrhage					

Abdominal aorta, axillary vein artery, brachial artery, right external iliac artery, ascending aorta, right jugular vein, internal jugular vessels with vertebral artery, internal jugular vein injuries were observed in one victim each. 10 victims were under the influence of alcohol while assault. Hemorrhage and shock (30) was most common cause of death followed by head injury (25); Burn (2), drowning (1) and blunt trauma to abdomen (3) etc. were also present as cause of death among victims.

DISCUSSION:

In our study of 80 victims of homicide, males (n=60) and females (n=20) were in the ratio 3:1with majority (50 %) of victims of Hindu religion, followed by Muslims and 1 (1.3 %) Christian. The incidence of homicide was 1.57%.

Ambade et al[3] noticed an equal gender predilection in homicide victims, but similar higher evidence of use of blunt trauma (n=42). Homicide by ligature was observed in only 9 patients. The most cases belonged to 31-40 years with youngest case of a new-born. According to global homicide study most of homicidal victims belong to age group below 30 years. Similar age groups were noticed by Hageslstam[4].

Assailant of deceases mostly were known person, friend or colleague and place of assault mainly over street or shared residence with victim. This contrasts with another study where, unknown assailants were common than unknown especially in blunt trauma.[3]

All victims were semiskilled or unskilled lower middle class (63), similar to finding by Mohanty et al.[5] Assailants socioeconomic profile was not known in our study but, Rogers et al[6] a positive association was established between poverty and homicide.

Alcoholics constituted 31.3 %, drug addicts 7.5 %, smokers 2.5 % and no addictions were known 58.8 % of assailants. When compared with the study of C. Hagelstam et al,[4] it was found that alcoholics were 3 times more than in our study. Shilan Caman et al [7] found 29.3 % of victims under alcohol which is near about same when compared with our study. No known medical or psychological problems were noted in majority of victims, but such details of assailants could not be recorded in our study. In another study more than 50 % cases were diagnosed as personality disorder, with a small subset suffering from schizophrenia.[4] Richard-Devantoy[8] noticed positive correlation between major mental disorder and being an assaulter in homicide cases, and also noticed that depression was a major disorder in female murderers. In our victims, 78 bodies were in rigor mortis, with discharges from orifices in almost 25 patients. Majority of deaths occurred due to hemorrhage and shock probably due to large vessel injury or blunt organ trauma, with minority of deaths due to burns or drowning. 78.9 % of assailants (offenders) were known by the victims or somehow related to them and 21.3 % were not known, with most of them having a single assailant. Kleio Fragkouli et al[9] had the same results as our study involving maximum number of assailants being one.

41.3 % of the victims were found on streets(outdoor), victims & assailant's shared residence(indoor) was 32.5% and workplace (outdoor) was 11.3%. In the study done by V. N. Ambade et al[3], they also found that the victims were found more outdoors than indoors.

When compared with the study done by Kominato. Y. et al,[10] Slobodan Nikolić et al [11] and C. Hagelstam et al[4], their findings are contrary as they found victims indoors more than outdoors.

Hsiao-Lin Hwa et al[12], found that the blunt weapons were used more which was nearly 52% in our stdy.

Motive was trivial as argument in most cases; Madfis E et al[13] studied the root behavioral pattern behind homicides and their motives, when an argument goes wrong. He postulated that in a losing argument one may not know how to deal and cope and becomes excruciatingly humiliated and eventually resorts to an ultimate act of cruelty to remedy lowered masculinity in case of male offenders.

Sharp wounds constituted 3.8 % on head and blunt wounds 36.6 %; sharp wounds constituted 15.2 % on thorax and blunt wounds 17.7 %; sharp wounds constituted 18.9 % on abdomen and blunt wounds 6.3 %. This contrasts with study done by V. N. Ambade et al[3] as they found more sharp injuries on thorax than on abdomen. Slobodan Nikolić et al[11], found more sharp injuries on head and we found more blunt injuries on head.

Our study highlights the demographic characteristics in homicidal cases, and this will help in delineating a desperate requirement for a multi-factorial outline for scrutiny and action necessitates addressing basic human advancement in matters like education, employment, social justice and medical care, along with a prospective evaluation of the homicide victim profile and immediate preventive intercessions at the national, societal and medical level to save their life.

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