ORIGINAL RESEARCH

Assessment of pattern of unnatural deaths

Dr. Abhuzar Rizwi

Assistant Professor, Department of Forensic Medicine, Netaji Subhas Medical College & Hospital, Bihta, Patna, Bihar, India

Corresponding Author
Dr. Abhuzar Rizwi
Assistant Professor, Department of Forensic Medicine, Netaji Subhas Medical College & Hospital, Bihta, Patna, Bihar, India

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ABSTRACT

Background: Unnatural deaths of medico-legal importance" refers to deaths that occur under circumstances that suggest foul play, accident, suicide, or are otherwise suspicious. The present study was conducted to assess pattern of unnatural deaths. **Materials & Methods:**72 cases brought for autopsy to the Department of Forensic Medicine & Toxicology, of both genders were recorded. Causes of deaths in each case was recorded in case sheet. **Results:** Out of 72 cases, males were 40 and females were 32. Causes of unnatural deaths were head injury in 32, spinal injury in 3, polytrauma in 2, blunt injury to trunkin 5, poisoning in 3, crush injury in 2, septic burns in 3, electric shock in 4 and hanging in 18 cases. The difference was significant (P< 0.05). **Conclusion:** The most common cause of unnatural deaths was head injury, and hanging.

Keywords: medico-legal, head, Unnatural deaths

INTRODUCTION

Unnatural deaths of medico-legal importance" refers to deaths that occur under circumstances that suggest foul play, accident, suicide, or are otherwise suspicious.[1] These deaths require investigation to determine the cause and manner of death.Homicide deaths result from the intentional actions of another person, such as murder or manslaughter. These cases require investigation to identify the perpetrator and establish the motive.[2]Suicide deaths caused by self-inflicted injuries or actions.[3] Determining suicide involves evaluating the circumstances, the individual's mental health history, and any evidence suggesting intent.Accidental deaths caused by unintentional injuries, such as traffic accidents, falls, drowning, or workplace accidents.[4] These cases often require investigation to determine if negligence or other factors contributed to the death. Deaths resulting from the intentional or unintentional consumption of toxic levels of drugs or medications. These cases may involve determining whether the overdose was accidental or deliberate.[5]

Unnatural death trends are a measure of society's mental health and socioeconomic standing.Road traffic accidents claim the lives of one person in India fewer than every five minutes.The poverty and lack of literacy in the community are closely associated with the crime rate in the society.[6]The present study was conducted to assess pattern of unnatural deaths.

MATERIALS & METHODS

The present study was conducted on 72 cases brought for autopsy to the Department of Forensic Medicine & Toxicology, of both genders.

Data such as name, age, gender etc. was recorded. Causes of deaths in each case was recorded in case sheet. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 72		
Gender	**Males**	**Females**
Number	40	32

Table I shows that out of 72cases, males were 40 and females were 32.

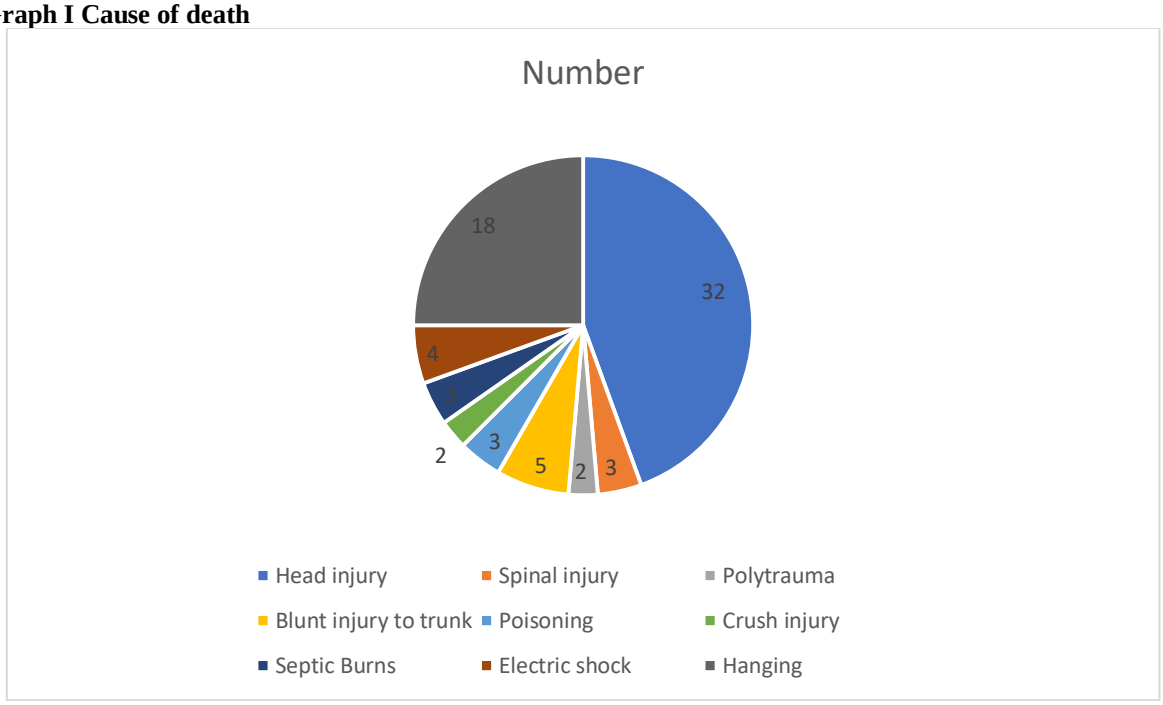
Table II Cause ofdeath

Causes	Number	P value
Head injury	32	0.05

Spinal injury	3	
Polytrauma	2	
Blunt injury totrunk	5	
Poisoning	3	
Crush injury	2	
Septic Burns	3	
Electric shock	4	
Hanging	18	

Table II shows that causes of unnatural deaths were head injury in 32, spinal injury in 3, polytrauma in 2, blunt injury to trunk in 5, poisoning in 3, crush injury in 2, septic burns in 3, electric shock in 4 and hanging in 18 cases. The difference was significant (P< 0.05).

Graph I Cause of death



DISCUSSION

When death is sudden, suspicious or unnatural, post mortem examination of the dead becomes imperative.[7] Medicolegal autopsies are performed according to the laws of the land for the administration of justice.[8] Medicolegal autopsies in India are carried out on request of police or magistrate with a primary aim to reveal the cause of death and to decide if the cause of death is in accordance with the postulated manner of death.[9,10] ‘‘Unnatural death’’ means, death of a person caused by suicide or by another, or by an animal or by machinery or a motor vehicle or by an accident, or under circumstances raising a reasonable suspicion that some person has committed an offence or foul play.[11,12]The present study was conducted to assess pattern of unnatural deaths.

We found thatout of 72 cases, males were 40 and females were 32. Peethala et al[13] in their study found that head Injury cases consisted of 33.46 % of cases. Poisoning cases consisted of 18.01 % of cases. Burns cases consisted of 14.56 % of cases. Polytrauma cases consisted of 6.29 % of cases. Hanging cases consisted of 6.20 % of cases. Septic burns cases consisted of 2.75 % of cases. Drowning cases consisted of 2.65 % of cases. Blunt injury to trunk cases consisted of 2.36 % of cases. Spinal injury cases consisted of 2.26 % of cases. Snake bite cases consisted of 1.47 % of cases. Crush injury cases consisted of 1.18 % of cases. Throttling cases consisted of 0.68 % of cases. Electric shock cases consisted of 0.68 % of cases. Sunstroke cases consisted of 0.49 % of cases. Miscellaneous causes consisted of about 6.59 % of total cases.

We observed that causes of unnatural deaths were head injury in 32, spinal injury in 3, polytrauma in 2, blunt injury to trunk in 5, poisoning in 3, crush injury in 2, septic burns in 3, electric shock in 4 and hanging in 18 cases. Kumar et al[14]revealed a rise in road traffic fatalities (37%) that constituted the majority of autopsies carried out followed by death due to poisoning and burns. Male preponderance was quite evident (2.5:1) except for death due to burns where ratio was reversed (1:2.9). People in 3rd decade were most prone to such fatalities. Of the total medicolegal autopsies conducted in this period, the manner of death was unnatural in 98% of the cases and 71% of them were accidental in nature.

Singh et al[15] found that 84.2% subjects were between the age group of 16 and 45. Accidental deaths (79.3%)

constituted the majority of unnatural fatalities followed by suicidal (13.9%) and homicidal (6%) deaths. Road traffic accidents (RTAs), burn, poisoning, accidental falls from height and firearm injury were responsible for 94.5% of the total unnatural deaths. A male preponderance (73.4%) was seen in all causes of deaths except for burns where females (61%) outnumbered males (39%). The incidence of fatalities due to poisoning and burns had increased from 5.7% and 22.6% to 12% and 24.3%, respectively, whereas due to fire arms and machinery accidents decreased from 4.5% and 1.2% to 1.2% and 0.4%, respectively. The proportion of mortality due to road traffic accidents (50.3%) and accidental fall from height (6.9%) remained almost static. Two-wheeler occupants (motor cycles, etc. 33.3%) were the main victims in road traffic accidents. Pouring of kerosene oil (36% dowry death), malfunctioning and bursting of kerosene oil stove (43.5%) were the most common factors in burn deaths. Between 1977 and 1987 barbiturates (33.3%), organophosphates (23.8%) and copper sulphate (14.3%) and in 1987-1997 organophosphates (45%) and aluminium phosphide (26.5%) were the major fatal poisons. Since 1992 aluminium phosphide (80%), a fumigant pesticide used for wheat preservation was the most common poison. The incidence of suicidal deaths increased from 10.9% (1987-1992) to 15.7% (1997-2002) with a peak incidence of 18.2% in 1992-97.

CONCLUSION

Authors found that most common cause of unnatural deaths were head injury, and hanging.

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