

A Research Study on Medicolegal Autopsies Conducted at Mortuary of Government Medical College, Ongole, Andhra Pradesh from 1st January to 31st December 2020

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Abstract

Aim: To do a research study on Medicolegal Autopsies conducted at Government Medical College Mortuary, Ongole, Andhra Pradesh from 1st January 2020 to 31st December 2020. **Materials & Methodology:** This study was conducted at Government Medical College, Ongole from 1st January to 31st December 2020. A total of 534 medicolegal cases were brought to mortuary for the sake of medicolegal autopsy during the study period. **Result:** In the research study, it is evident from the statistics that maximum number of medicolegal autopsies were conducted in the decreasing order in the following deaths - Road Traffic Accidents < Poisoning < Hanging < Homicidal Deaths < Deaths due to hit by Train < Drowning < Burns < Fall from Height < Snake Bite. Medicolegal autopsies were done more in males compared to females in almost all types of deaths. Likewise maximum number of autopsies were conducted in the active age group of 18 to 36 years

Key words: Autopsy, Road traffic accident, Poisoning, Homicide, Suicide, Wounds, Railway accidents

Introduction

Autopsy refers to the systematic examination of a dead person for medical, legal and/or scientific purposes. Medicolegal autopsy involves scientific examination of a dead body carried out under the laws of the State for the protection of rights of citizens. The basic purpose of this autopsy is to establish the cause and manner of death. The autopsy should be carried out by the registered medical practitioner, preferably with training in forensic medicine. In every case, the autopsy must be complete i.e., all the body cavities should be opened, and every organ must be examined.¹ Road traffic accidents and poisoning

cases continue to be a growing menace, incurring heavy loss of manpower and human resources in the form of death and disability along with a corresponding drain of potential economic growth. The injuries may occur in any form of transportation, viz., roads, railways, vessels and aviation. Numerically, road traffic accidents account for the great majority worldwide.² The process of rapid and unplanned urbanization has resulted in an unprecedented revolution in the growth of motor vehicles world-wide. The alarming increase in morbidity and mortality owing to road traffic accidents (RTA) over the past few decades is a matter of great concern globally. Currently motor vehicle accidents rank ninth in order of disease burden and are projected to be ranked third in the year 2020. In India, more than 70,000 people get killed due to RTA every year, and this needs to be recognized as an important public health issue. Very few studies have attempted to understand the epidemiology of risk factors associated with RTA in Indian cities³. Acute self-

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infliction of poisoning is very common among young in developing countries. The epidemiology of poisoning changes time to time and varies region to region. In south India, organophosphorus compound poisoning has been more common as compared to Aluminium phosphide poisoning in north India. All over India males are more commonly reported to poison themselves. Poisoning in farmers has been reported more commonly than in any other profession.⁴ India carries one of the largest railway networks in the world and accidents from rail operations may not be unexpected. Children playing in the vicinity of the rail track or pedestrians using the track as a convenient route for walking may get accidentally involved. Persons leaning too far from the windows may strike their head upon passing railway fixtures, bridge abutments, tunnel sides or electric poles, etc. Suicides have also been reported where a determined suicide will deliberately lie across the line or even place his/her head for achieving self-destruction.⁴ Accidental burning deaths may occur inside the kitchen, in factories, house conflagrations, flaming of highly inflammable fuel, electrical short circuits, manufacture and playing with fireworks, dropping lighted matches, falling asleep while smoking a cigarette which drops on to the bed or chair, faulty heating appliances or electric wiring, leakage of cooking gas, etc. Infants, children, epileptics, intoxicated or drugged persons or helpless from other causes may fall into a fire. Lamps or stoves may explode and set fire to the clothes. Clothes of women may catch fire accidentally while cooking. Occasionally, women commit suicide by pouring kerosene on their head and clothes before setting fire to themselves due to domestic worries, disappointment in love or acute or chronic disease.⁵ In India, hanging is a common mode of committing suicide among men. Age is no bar for suicide by hanging. Physically disabled, blind person, lame, amputated arms, or forearms, all have committed suicide by hanging.⁶ It has been estimated that some form of poison directly or indirectly is responsible for more than 1 million illnesses worldwide annually, and this figure could be just the tip of the iceberg since most cases of poisoning actually go unreported, especially in Third World countries.⁷ The incidence of poisoning in India is among the highest in the world: it is estimated that more than 50,000 people die every year from toxic exposure. The causes of poisoning are many—civilian and industrial, accidental and deliberate. The problem is

getting worse with time as newer drugs and chemicals are developed in vast numbers. The commonest agents in India appear to be pesticides (organophosphates, carbamates, chlorinated hydrocarbons, pyrethroids and aluminium/zinc phosphide), sedative drugs, chemicals (corrosive acids and copper sulfate), alcohol, plant toxins (datura, oleander, strychnos, and gastrointestinal irritants such as castor, croton, calotropis, etc.), and household poisons (mostly cleaning agents). Among children the common culprits include kerosene, household chemicals, drugs, pesticides, and garden plants.⁸ By domestic accident is meant an accident which takes place in the home or in its immediate surroundings, and, more generally, all accidents not connected with traffic, vehicles or sport. The most frequent causes of domestic accidents are: 1. Drowning 2. burns (by a flame, hot liquid, electricity, crackers or fireworks, chemicals) 3. Falls 4. Poisoning (e.g., drugs, insecticides, rat poisons, kerosene) 5. Bites and other injuries from animals.⁹

Materials & Methods

This study was conducted at Government Medical College, Ongole from 1st January 2020 to 31st December 2020. A total of 534 medicolegal cases were brought to mortuary for the sake of medicolegal autopsy during the study period. Medicolegal reports belonging to all these cases were thoroughly studied and analyzed for the sake of research study.

Result

In this study on 534 medicolegal cases brought to Government Medical College Mortuary, deaths due to road traffic accidents occurred in 224 cases (41.9%). Deaths due to poisoning occurred in 80 cases (14.9%). Deaths from hanging occurred in 64 cases (11.9%). Homicide cases involving death due to use of weapons occurred in 35 cases (6.5%). Deaths due to hit by train occurred in 42 cases (7.8%). Deaths due to drowning occurred in 32 cases (5.9%). Deaths due to burns occurred in 26 cases (4.8%). Deaths due to fall from height occurred in 26 cases (4.8%), Deaths due to alleged snake bite occurred in 5 cases (0.93%).

Out of 224 deaths that occurred due to road traffic accidents, 154 occurred in males and 70 occurred in females. Among 154 deaths in males, 92 occurred in the age group of 18 – 36 years and remaining 62 occurred

in the age group of 36 – 54 years. Among 70 deaths in females, 52 occurred in age group of 20 to 45 years and 18 occurred in the age group of 45 to 65 years. Out of 80 deaths due to poisoning, 46 occurred in females and 34 occurred in males. Out of 46 deaths in females, 42 occurred in the age group of 24 to 36 years and only 4 occurred in the age group of 37 to 54 years. Out of 34 cases in males, 22 occurred in the age group of 30 to 45 years and only 12 occurred in the age group of 46 to 62 years. Out of 64 cases of deaths due to hanging, 42 deaths occurred in males and remaining 22 cases in females. Out of 42 deaths in males, 28 deaths were seen in the age group of 25 to 40 years and 14 cases were seen in the age group of 40 to 60 years. Out of 22 deaths in females, 18 deaths occurred in the age group of 22 to 36 years and only 4 occurred in the age group of 37 to 54 years of age.

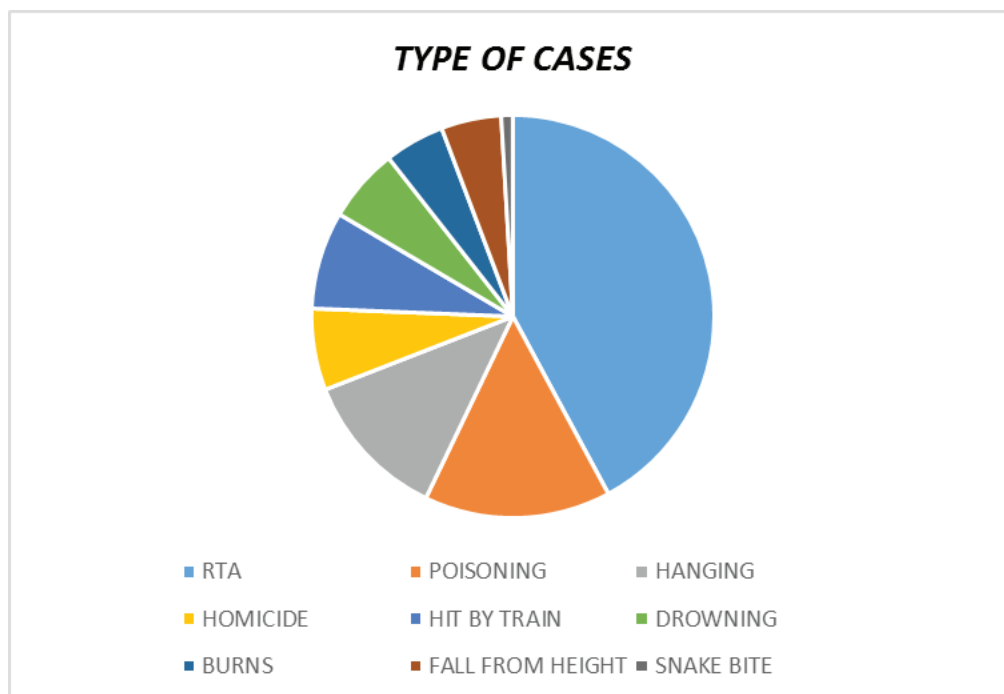
Out of 35 homicide cases, 32 deaths occurred in males and only 3 deaths occurred in females. Out of 32 deaths in males, 28 deaths were seen in 31 to 40 years age group and 4 deaths were seen in 41 to 50 years age group. Out of 3 deaths seen in females, all 3 cases were seen in the age group of 30 to 40 years of age. Out of 42 deaths that occurred due to hit by train, 34 deaths occurred in males and remaining 8 deaths occurred in

females. Out of 34 deaths in males, 26 deaths were seen in the age group of 18 to 35 years and 8 deaths were seen in 36 to 56 years of age group. Among females, 6 deaths occurred in 20 to 36 years of age and remaining 2 deaths occurred in 37 to 62 years of age.

Out of the 32 deaths that occurred due to drowning, 18 deaths occurred in males. Out of 18 deaths, 14 deaths were seen in the age group of 18 to 35 years of age group and remaining 4 in 35 to 50 years age group. Out of 14 deaths that occurred in females, 12 were seen in 18 to 36 years age group and 2 in 37 to 55 years age group. Out of 26 deaths that occurred due to burns, all deaths occurred in males and 20 deaths occurred in the age group of 18 to 35 years and 6 deaths occurred in the age group of 36 to 55 years.

Out of 26 deaths due to fall from height, 14 deaths occurred in males. Among 14 deaths, 9 occurred in the age group of 18 to 36 years and remaining 5 in the age group of 36 to 60 years. Among 12 deaths that occurred in females, 8 occurred in the age group of 18 to 36 years of age and 4 occurred in the age group of 37 to 60 years of age. Out of 5 deaths due to alleged snake bite, 3 deaths were seen in male in the age group of 25 to 40 years. Two deaths were seen in females in the age group 25 to 40 years of age.

Statistics



Discussion & Conclusion

An analytical research study was done on medicolegal autopsies which were conducted at mortuary of Government Medical College, Ongole, Andhra Pradesh from 1st January to 31st December 2020. In the research study, it is evident from the statistics that maximum number of medicolegal autopsies were conducted in the decreasing order in the following deaths - **Road Traffic Accidents < Poisoning < Hanging < Homicidal Deaths < Deaths due to hit by Train < Drowning < Burns < Fall from Height < Snake Bite.**

Medicolegal autopsies were done more in males compared to females in almost all types of deaths. Like wise maximum number of autopsies were conducted in the active age group of 18 to 36 years. Public has to be educated on road and railway safety measures. Necessary actions have to be taken to implement traffic rules strictly and avoid uncontrolled railway track crossing. Proper medical facilities and quick transportation of patients especially at the rural level should be made available to the public in poisoning, burns, fall from height and snake bite cases. Strict maintenance of law and order by police to decrease crime in the society. Lastly the government should work to improve the financial and living standards of the public especially the poor.

Ethical Clearance : Ethical clearance was obtained from the Head of Forensic Medicine Department of Government Medical College, Ongole prior to the start of the study.

Source of Funding : Self

Conflict of Interest: Nil

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