



AN INTROSPECT INTO TRENDS OF UNNATURAL DEATHS IN HARYANA: A RETROSPECTIVE STUDY

Forensic Medicine

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ABSTRACT

Unnatural deaths are known to claim a substantial number of lives, the world over, with the vehicular accidents accounting for a lion's share. Poisoning is another major problem all over the world more so in developing country like India. The other means of unnatural deaths like hanging, drowning, head injuries, etc constitute a substantial number of unnatural deaths in this part of the world because of unemployment, illiteracy, poverty and lack of infrastructural facilities for timely management of such patients. This was a retrospective descriptive study carried out in the Department of Forensic Medicine & Toxicology at MMIMSR, Mullana, Haryana. A total of 52 cases were studied, out of which 36 were male and 16 were female. Most common age group were third & fourth decade followed by second decade and fifth. The present study reveals that road traffic accidents constitute the major chunk of unnatural deaths. Although an autopsy surgeon cannot contribute much to the elucidation of factors leading to the unnatural deaths a sincere effort can highlight dangerous rising trends of preventable causes of unnatural deaths and thus direct the efforts of social organizations and the authorities in right direction

KEYWORDS

Unnatural deaths, Road Traffic Accident, Prevention.

INTRODUCTION:

Unnatural deaths are known to claim a substantial number of lives, the world over, with the vehicular accidents accounting for a lion's share. The vehicular accident rate per thousand vehicles is greater in developing countries than in the developed. According to official statistics 150,785 persons were killed and 494,624 injured in road traffic crashes in India in 2016 alone and the accident rate i.e. number of fatalities in accidents per hundred thousand populations was 11.35 [1]. However, this is probably an underestimate for injuries, as not all injuries are reported to the police.

Poisoning is another major problem all over the world more so in developing country like India. Though the type of poison and the associated morbidity and mortality varies from place to place and changes over a period of time. The use of poisons for suicidal and homicidal purposes dates back to the Vedic era in India. The exact incidence of this problem in India remains uncertain, but, it is reported that 1 to 1.5 million cases of poisoning occur every year, of which nearly one third die [2].

Fire and its searing cleansing powers have been held in great reverence and fear in the Indian psyche. This extended to cleansing and blessing of human bonds and relationships over it. Even Shushruta's ancient medical treatise gave it the final sterilizing / cleaning authority. As per the World Health Organization, burns account for an estimated 300,000 deaths annually, majority (>95%) of which occur in developing countries, with the Southeast Asia region contributing to 57% of the deaths. [3]

The other means of unnatural deaths like hanging, drowning, head injuries, etc constitute a substantial number of unnatural deaths in this part of the world because of unemployment, illiteracy, poverty and lack of infrastructural facilities for timely management of such patients.

MATERIAL & METHODS:

This was a retrospective descriptive study carried out in the Department of Forensic Medicine & Toxicology at MMIMSR, Mullana, Haryana, a tertiary care center for North Haryana with a catchment of neighboring states of Punjab, Uttar Pradesh and Himachal Pradesh due to its strategic location near the border of these states.

The materials of study comprised 52 cases of unnatural deaths which underwent medicolegal autopsy at this centre over a period of one calendar year from 1st January 2011 to 31st December 2011. The information regarding age, gender, socioeconomic background, marital status and the circumstances of death was obtained from next

of the kin, hospital records and police papers. The reports of chemical analysis and histopathological examination of viscera were taken into consideration while formulating final opinion regarding cause of death.

RESULTS:

A total of 52 cases were studied, out of which 36 were male and 16 were female (Chart 1). Most common age group were third & fourth decade with 15 cases each followed by second decade with 10 cases and fifth decade with 8 cases. Only one case was seen in first decade and none beyond 60 years. (Chart 2)

Road traffic accidents claimed the majority of lives lost to unnatural deaths with 26 cases followed by poisoning and burns claiming 8 and 7 lives respectively. Other causes included assault 4, Firearm injury 1, drowning 2 & miscellaneous claiming 4 lives respectively (Chart 3).

DISCUSSION:

Unnatural death is one of the indicators of the level of social and mental health. The present study reveals that road traffic accidents constitute the major chunk of unnatural deaths similar to findings of Sharma et al [4].

Despite of the fact that road traffic accidents come under the preventable causes very little has been done in our country to prevent them. Although mandatory addition of safety features in vehicles and multiple laning of highways have made travelling easier but they have also led to increase in high speed collisions which have very high fatality ratios. At one end inadequate and poor quality public transport services are responsible for increase in use of personal transport and at the other easy availability of vehicle loans aided by government for economic growth of automobile sector has propagated a vicious cycle.

Poisoning was found to be the most common cause of death in rural areas and second only to road traffic accidents overall. Poisoning was the commonest method employed for suicides, which was common on second and fourth decade of life. This can be attributed to various socio-economic factors viz. lack of employment opportunities, urbanization, break-up in the family support system, economic instability etc and easy availability of lethal pesticides in agricultural set up.

In the present study, the higher incidence of unnatural deaths among females due to burns mainly in second and third decade of life, emphasize the fact that there is a strong risk factor among women of this age group for burns due to expose to fire and inflammable material in kitchens or these deaths in general and homicidal and suicidal burn deaths in particular have genuinely been termed as 'Bride Burning' or 'Dowry Deaths' [5].

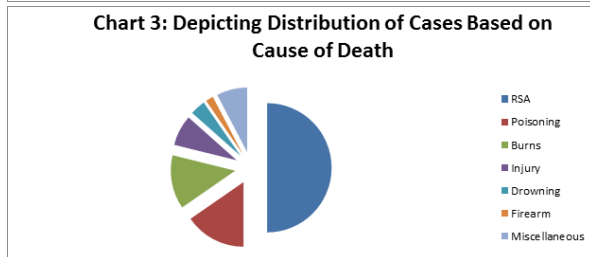
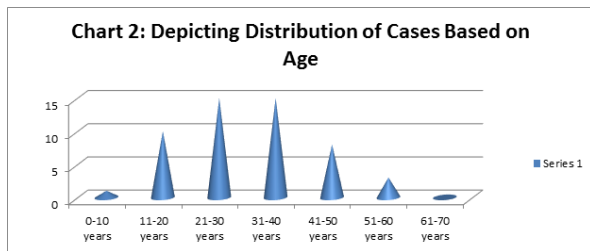
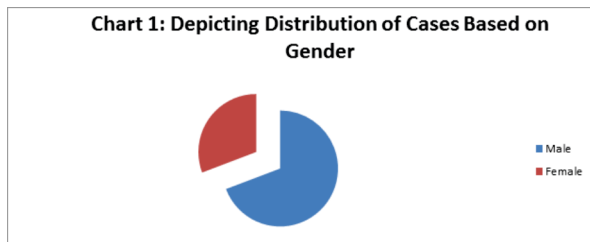
Other cause included drowning which were probably due to the fact that two seasonal rivers flows nearby the institution which are notorious for seasonal floods and flash floods due to their catchment of foot hills of Himachal Pradesh. Some cases of assault & firearm injury were seen in present study, which indicate towards increasing intolerance among youth and easy availability of weapons in the state.

CONCLUSION:

Although an autopsy surgeon cannot contribute much to the elucidation of factors leading to the unnatural deaths a sincere effort can highlight dangerous rising trends of certain preventable causes of unnatural deaths and thus direct the efforts of social organizations and the authorities in right direction.

Especially ,strict implementation of traffic rules, with strict penalties for drunken or untrained drivers, reckless driving and above all instillation of a sense of responsibility among drivers is need of the hour by educating the general public about the road safety measures and media can play a more active role in this area.

Abolishing middle men from crop and food grain markets, appropriate pricing of agricultural products and monitored sale of pesticides can go a long way in reducing poisoning cases in rural areas. Above all education of women about kitchen safety and protection of women rights can turn the tide in reducing accidental and suicidal burn cases among women.



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