

Research Journal of Pharmaceutical, Biological and Chemical Sciences

A Study To Evaluate Medico-Legal Aspects Of Death Due To Burns From Legal Point Of View.

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ABSTRACT

In India, deaths due to burns, is much more common in this country as compared to western countries. The fact is that the results of treatment of burns not satisfactory, contributes further to the increased mortality. The present study was undertaken to know the circumstances of death due to thermal burns, and to find out the relationship between surface area of burns, period of survival and cause of death. All cases of death due to thermal burns brought to the mortuary of rural medical college Loni between 30 May 2012 to June September 2014. 143 cases of deaths due to thermal burns were studied. The incidence of death due to burns is 25.41%, maximum number of death 46.85% occurred in the age group 21-30 years. Female out numbered males by about 3-times i.e., in a ratio of 3:1 maximum(80.42%)deaths were attributed to septicemia . It was also observed that 76.22% of the victims had accidental burns. Accidental burns are mostly preventable by adequate safety measures and safety education. "Bride burning" is a social evil unmatched in its cruelty and cynicism in today's civilized society. Any discussion on its etiopathogenesis and remedial measures must take into account the socio cultural and economic ramifications underlying this scourge. Present study concludes that Most of the deaths were accidental in nature i.e., 76.22%, followed by suicidal burns (23.08%) and the minimum number of cases were of homicidal burns (0.70%).

Keywords: Thermal burns; cause of death; survival period.

<https://doi.org/10.33887/rjpbcs/2022.13.6.20>

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INTRODUCTION

Thermal burns appear to be the major medico-legal and social issue in the community at large. Fire has taken lakhs of lives and has cost the nation heavily in terms of morbidity, mortality and socioeconomic losses in the past, and continues to do so in spite of various scientific and technological advances [1]. In India, deaths due to burns, is much more common in this country as compared to western countries. The fact is that the results of treatment of burns not satisfactory, contributes further to the increase mortality. Some of the higher mortality are widespread illiteracy, poverty, over-crowding, unemployment, lack of adequate healthcare facilities and social and emotional factors. Death due to burns is, next only to deaths due to road traffic accidents.

Dowry Death or Bride Burning [2]

Dowry Prohibition Act, 1961 defines “dowry” to mean any property or valuable security given or agreed to be given either directly or indirectly.

- By one party to marriage to the other party to the marriage.
- By the parents of either party to a marriage, or by any other person, at or before or anytime after the marriage in connection with the marriage of said parties.

The obnoxious and ubiquitous practice of dowry has perpetuated a new and alarming rise in mortality from burns, so called “Dowry Death”.

Aim

To evaluate medico-legal aspects of death due to burns from legal point of view

MATERIAL AND METHODS

Material for the present study comprise 143 cases of death due to burns brought to the mortuary of Rural Medical College And Hospital Loni. All case records in the mortuary files were studied for fatalities due to burns trauma over a period of 2 years (May 2012to September 2014). The study was conducted for two years cross sectional.

The data consists of:

- Detailed examination of the deceased who died due to burns were subjected to the autopsy during the prospective study period.
- Inquest papers and relevant police documents.
- Case history papers and other relevant hospital documents of the victims.
- Post-mortem report of the above said cases. Etc.

During the study period, out of 789 medicolegal autopsies, 143 cases were victims of burns.

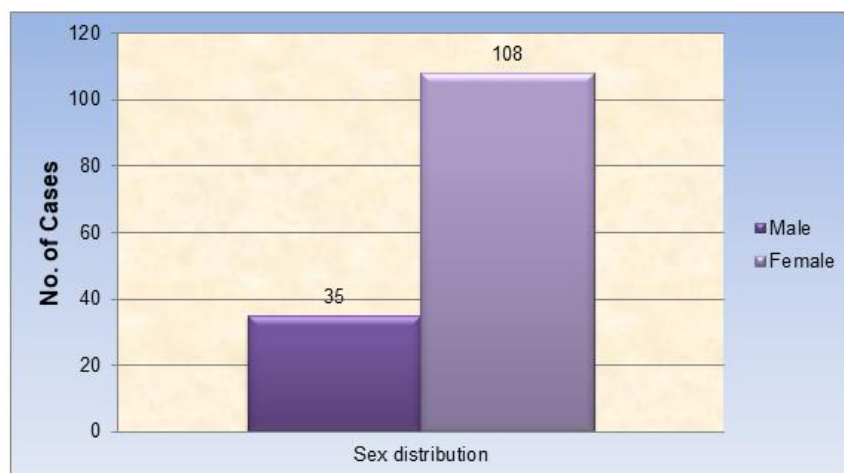
OBSERVATION AND RESULTS

The present study was conducted at Department of Forensic Medicine, Rural medical college Loni from May 2012 to September 2014. During the study period 143 cases fulfilling the inclusion criteria were studied. Following the individual examination of the cases as per the proforma, data has been systematically recorded and various observations made were tabulated and analyzed.

Table 1: Age wise distribution of victims

Age in years	No. of cases	Percentage
0 - 10	6	4.19
11 - 20	12	8.39
21 - 30	67	46.85
31 - 40	28	19.58
41 -50	14	9.80
51 - 60	13	9.10
61 & above	3	2.09
Total	143	100

From the above table shows that It can be noted that maximum number of deaths i.e.67(46.85%) deaths occurred in the age group of 21-30 and minimum number of death occurred in the age group of 61 and above i.e 3 (2.09%).

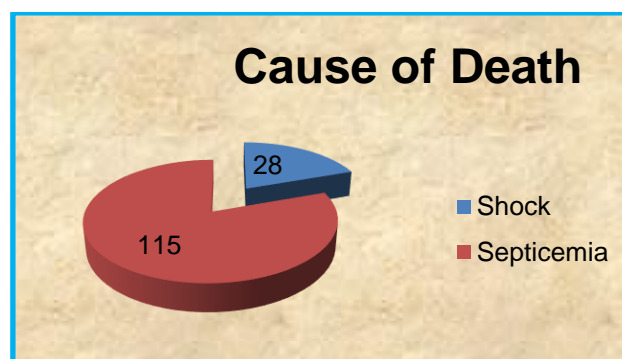


Females out numbered the male .out of 143 cases females were 108(75.52%) and males were 35(24.48%).

Table 2: Manner of Death

Mode of burns	No. cases	Percentage
Accidental	109	76.22
Suicidal	33	23.08
Homicidal	01	0.70
Total	143	100

Table no.2 shows out of 143 cases 109(76.22%) cases were accidental .33(23.08%) cases were suicidal and only one out of 143 cases was homicidal(0.70%)



115(80.42%) cause of death was due to septicemia followed by 28(19.58%) cause of death was

due to shock

Table 3: Distributions of Cases as per Dowry Death

	No. of cases	Percentage
Dowry Death	16	14.81
Death due to other Causes	92	85.19
Total	108	100

Table no.3 Denotes that out of 108 cases. 14.81% cases were of dowry Death were as 85.19% cases were due to other cause.

DISCUSSION

The incidence of death due to burns is 18.12% i.e., of 789 (total cases) from the year 2012-2014, which is the second commonest cause of death next to road traffic accidents. Every year there is slight increase in burn death cases because number of patients are also increasing every year.

Ambade VN [3] found that deaths due to burning accounted for 21.6% of the total medicolegal deaths. In a study by Nagesh Kumar G Rao [4] it was observed that death due to burns accounted for 22.73% of all medicolegal cases. In present study females out numbered males by about 3-times i.e., the incidence being 75.52% in females and 24.48% in males. Mohanty MK et [5] in a study on death by burning found that female preponderance was more with 79.5%. Ambade VN [3] observed female predominance (74.2%) in burning with male-female ratio equal to 1:2.9. Ashish K Jaiswal [6] found that the incidence was more in females as an absolute number (70.3%).

In the present study, out of 143 cases, majority deaths i.e., 80.42% were due to septicemic shock and while 19.58% were due to neurogenic shock. This is because most of the victims of burns, who survived the initial 24 hours after burns, succumb to infection of the burnt area and its complications. Burns cause devitalization of tissue leaving extensive raw areas, which usually remain moist due to the outflow of serous exudate. The exposed moist area along with the dead and devitalized tissue provides the optimum environment favoring colonization and proliferation of numerous microorganisms, which is further enhanced by the depression of the immune response. All these factors contribute towards sepsis in a burns victim. Tripathi CB [7], found 30.92% death due to septicemia, while Nageshkumar Rao [4] found that 53% of cases died due to septicemia.

Maximum death were due to accidental burns (76.22%), followed by suicidal burns (23.08%) and the minimum number of cases were of homicidal burns (0.70%). Further highly selective factors, such as socioeconomic conditions, domestic quarrels, disturbed domestic life, chronic disease, mental disorder, disappointment in love or failure in examination etc. may determine the number of suicidal cases. Very surprisingly, one of the most common history given in the police requisition, in a recently married girl is that she caught fire while cooking or the pressure stove got burst. This reasoning cannot obviously be accepted to be happening only in a newly married girl.

CONCLUSION

Accidental burns are mostly preventable by adequate safety measures and safety education. "Bride burning" is a social evil unmatched in its cruelty and cynicism in today's civilized society. Any discussion on its etiopathogenesis and remedial measures must take into account the socio cultural and economic ramifications underlying this scourge. Present study concludes that Most of the deaths were accidental in nature i.e., 76.22%, followed by suicidal burns (23.08%) and the minimum number of cases were of homicidal burns (0.70%).

REFERENCES

- [1] Modi NJ. Textbook of Medical Jurisprudence & Toxicology. 22nd Edn. Bombay; Butterworth. 1999: 230-240.
- [2] Mestri SC. Role of doctors in dowry deaths. JFMT. 1992; X(3&4). 2



- [3] Ambade VN . Study of burn deaths in Nagpur, Central India. Burns. 2006 Nov; 32(7): 902-8.
- [4] Nageshkumar G Rao. Study of fatal female burns in Manipal. JFMT. 1997 Jul-Dec. XIV (2).
- [5] Latha KS and Narendra R. Dowry deaths: Implications of law. Med Sci Law. 1998 April; 38(2): 153-6.
- [6] Ashish K Jaisal. Epidemiological and socio-cultural study of burn patients in MY Hospital, Indore, India. Med Sci Law. 2007; 40(2): 158-163.
- [7] Tripathi CB. Burnt wives: A study of autopsy findings. TIAFM.2000; 22(2). 7-9