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Profile of burn cases in haryana

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ABSTRACT

Burns recorded in vital statistics represents a catastrophic injury: catastrophic in the overwhelming insult to the patients, catastrophic in its psychological aspects and catastrophic in cost and suffering to the family involved. A severe burn is the most devastating injury a person can sustain and yet hope to survive. It is a common catastrophe today as burn injury cases are one of the common emergencies admitted to any hospital. As the etiological factors of the burn injuries vary considerably in different communities, careful analysis of the epidemiological features in every community is needed before a sound prevention programme can be planned and implemented. The present study was carried out in the department of Forensic Medicine and Toxicology of PGIMS and GH (General Hospital) Rohtak, Haryana and total 448 cases were collected for this study purpose. Female victims were most commonly affected as compared to male victims. The majority of deaths 182 (40.62%) occurred between 20-40 years of age group followed by 84(18.75%) between age group of 40-60 years. Married females were most common victim compare to unmarried one. The majority of burn deaths were accidental (85.26%) in nature followed by suicidal (8.03%) and homicidal deaths (6.69%).

Keywords: Burns, Dowry deaths, Manner of death, Marital Status, Period of survival.

INTRODUCTION

Burns injuries have been a major cause of concern since prehistoric time to the present era of modern medicine. Burn injuries were most important as they were commonest cause of unnatural death in India. Dowry deaths by burns is most common in India and at the same time accidental burns in females also occur often while cooking food.¹

As everywhere else, the modes of sustaining burn injuries in India are the same i.e. flames, scalds, electrical and thermal. The most common cause of flame burns is accidental.²

Undoubtedly a severe burn is the most devastating injury a person can sustain and yet hope to survive. In the United States, there are approximately 2 million thermal injuries every year and 1,30,000 of them necessitate hospital admission. Approximately 10,000 to 12,000 of these individuals die as a result of thermal injury annually.³ The present study was undertaken with following aims and objectives

1. To study the pattern of burn injuries in relation to age and sex.
2. To study the pattern of burns injuries in relation to marital status.
3. To study the pattern of burn injuries in relation to manner of death and period of survival.

MATERIAL AND METHODS

The present study was carried out in the Department of Forensic Medicine of PGIMS, Rohtak and General Hospital Rohtak, Haryana. The study consisted of 448 cases alleged to have died of burns and brought to mortuary of Department of Forensic Medicine of PGIMS and GH, Rohtak for medico-legal autopsy from 1st October 2009 to 30th September 2011. The information was collected from accompany relatives, hospital records and inquest papers.

Present study demonstrated preponderance of female 254(56.69%) victims over male 194(43.30%) victims. The overall female to male ratio was 1.3:1. The Age group of 20-40 yrs 182 (40.62%) was most commonly affected (Table1).

Married females 208(46.42%) were most commonly affected followed by married males 148(33.03%) (Table2).

Most common manner of death was accidental burns 382 (85.26%) (Table3). The most of the victims 284 (63.39%) survived for period of 12 to 24 hrs (Table4).

OBSERVATION & RESULTS

Table 1: Distribution of cases according to age group wise

Age group	Cases	Percentage (%)
0-20 yrs	69	15.40
20-40 yrs	182	40.62
40-60 yrs	84	18.75
>60 yrs	13	2.90
	448	100

Table 2: Distribution of cases according to marital status

	Male	Female	Total
Married	148	208	356
Unmarried	46	46	92
	194	254	448

Table3: Distribution of cases on the basis of manner

Manner of Death	No. of cases	Percentage (%)
Accidental	382	85.26
Suicidal	36	8.03
Homicidal	30	6.69

Table 4: Distribution of cases on the basis of period of survival:

Period of survival	No. of cases	Percentage (%)
Upto 12 hrs	110	24.55
12-24 hrs	284	63.39
24-36 hrs	37	6.25
36-72 hrs	17	3.79
>3 days		
Total	448	100

DISCUSSION

The Present study demonstrated preponderance of female 254(56.69%) victims over male 194(43.30%) victims. The overall female to male ratio was 1.3:1. The Age group of 20-40 yrs 182 (40.69%) was most commonly affected in the present study which was consistent with study of other researchers^{4,5,6,7}

Married females 208(46.42%) were most commonly affected followed by married males 148(33.03%) which was consistent with others studies^{5,8}. The most of the victims 284 (63.39%) survived for period of 12 to 24 hrs which was also reported in the study of H.M. Mangal. Most common manner of death was accidental burns 382 (85.26%) which was consistent with other studies.^{4,5,6}

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CONCLUSION

Despite the modernization, the domestic fire is the major cause of burns with maximum involvement of females and the stove burst, being the main cause. Dowry deaths, curse to our so called modern society, are still prevalent, inspite of stringent laws and amendments in the act. As this problem of thermal deaths persists in our country, the government along with various groups and bodies need to come together with more sincere efforts so as to minimize burn mortality and also to prevent and reduce their incidence.