



## MEDICO LEGAL STUDY OF CAUSE OF ATTEMPT OF BURN IN YOUNG MARRIED FEMALE IN AUTOPSY CASES

### Forensic Medicine

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### ABSTRACT

Burn injuries are dry thermal injury caused due to contact with dry heat such as flame, radiant heat or some heated solid substance like metal or glass, to the body surface. The Aim of the Study is to find out cause of attempt of dry thermal burn in young married females. Present prospective study was carried out on medico legal study of burn autopsy in Unnao, India. Distribution of burn cases on the basis of manner of death among study group. distribution of burn cases on the basis of history given by relative, motive of incidence among study group that describe the motives which provoked the victims for accidental, suicidal, homicidal deaths. Most of the burn attempt due to accidental burn 64.44% only 2.44% female cases are homicidal. Cases as like Careless 67.56%, Impulse 30.22%, Dowry 0.22%, Extramarital affair 0.22% and Love failure 0.67%.

### KEYWORDS

Attempt of burn, Unnatural death; Dowry death; Thermal burn; Forensic medicine, Medico legal study

#### 1. INTRODUCTION

The magnitude of deaths due to burns is as large as India is the only country in the world where fire is classified among the fifteen leading causes of death in 1998 standing fourteenth in the list [1].

Burn injuries are dry thermal injury caused due to contact with dry heat such as flame, radiant heat or some heated solid substance like metal or glass, to the body surface [2].

Medico- legal study define as study of, relating to, or concerned with both medicine and law, as when medical testing or examination is undertaken for a legal purpose [3].

The dry thermal burns injury represents an assault on all aspects of the patient, from the physical to the psychological. It affects all ages, from babies to elderly people, and is a problem in both the developed and developing world. Burn injuries are dry thermal injury caused due to contact with dry heat such as flame, radiant heat or some heated solid substance like metal or glass, to the body surface [2]. Autopsy has previously been shown to be a useful retrospective diagnostic tool; however we challenge its reliability as a result of our study [4].

Married female burn death where death of female occurs below 30 year and within 7 years of her marriage such death cases investigated by Magistrate under Cr.P.C 176 (Dowry death). The most common cause of death after a burn trauma in developed countries is death by multiple organ failure (MOF) [5, 6, and 7].

#### Effect of burn [18] -

- Intensity of the heat applied -The effects are much more sever if the heat applied is very great.
- Duration of exposure -More sever, if the application of heat is continued for a long time.
- Extent of total body surface area-Shock over 20 percent of the body is affected.

#### 2. THE AIM OF THE STUDY

To find out cause of attempt of dry thermal burn in young married females. To highlights problem regarding burn deaths victims.

#### 3. MATERIAL AND METHOD

Present prospective study was carried out on medico legal study of burn autopsy in Unnao, India. Study data was collected for the duration from 1st January 2013 to 30 June 2014. During this period total of 450 burn death cases were recorded out of 3149 medico-legal postmortem conducted.

#### 4. OBSERVATIONS AND RESULTS

Table 1: Shows the distribution of burn cases on the basis of manner of death among study group which found that most victims died due to burn injuries accidental 64.44% among male 65.43% and female 64.23%. Among male victims accidental manner was more common 65.43% followed by suicidal 28.40% and homicidal 4.94%. Among

female also accidental burn injuries outnumbered 64.23% followed by suicidal 31.98% and homicidal 2.44%.  $X^2 = 1.73$ ;  $DF = 3$ ;  $P = 0.63$  and find there is no significant association between manner of death and gender.

Table 2: Shows the distribution of burn cases on the basis of history given by relative, motive of incidence among study group that describe the motives which provoked the victims for accidental, suicidal, homicidal deaths. Careless in work was observed to be the major 304 cases i.e. 67.56% provocative factor accident, followed by impulsive nature of victims cases 136 i.e. 30.22% and love failure cases 3 i.e. 0.67% was provoked suicidal. Dowry death victim was female only 1 i.e. 0.22% and extramarital affair of woman 1 cases 0.22% provoke homicide by her husband.

#### 5. DISCUSSION

##### 5.1. MANNER OF DEATH

Present study (Table 1) shows the distribution of burn cases on the basis of manner of death among study group which find that most victims die as accidental burn 64.44% among male 65.43% and female 64.23%. Among male victims accidental manner more common 65.43% followed by suicidal 28.40% and homicidal 4.94%. Among female accidental outnumber 64.23% followed by suicidal 31.98% and homicidal 2.44%.

Other study findings as far as the manner of death is concerned, most of the deaths were accidental in nature 323 (70.8%) observed in 225 (68.8%) females and 98 (75.9%) males, while in 83 cases, (18.2%) suicidal deaths and in 50 cases (10.9%), homicidal deaths were observed [9]. Accidental burn 82.02%, 12% is homicidal and suicidal 5.06%.

In other study, approximately 21% of burn related deaths amongst women are due to such suicides [10], [11] reported a similar proportion of such suicides in Calcutta.

Accidental burns were more common as compared to suicidal & homicidal burns. This finding is consistent with other studies [1, 12, 13, 14, 15, 16]. Married males and females were the usual victims of accidental burns as compared to unmarried persons. The cooking activities involving fire associated with wearing of loose synthetic material leads to accidental burns. Suicidal and homicidal deaths were more common in married females. The reason for this may be old custom of dowry and marital disharmony which compel the married females either to commit suicide or they may be killed by their in-laws and husband.

##### 5.2. Motive of incidence

In our study (Table 2) shows the distribution of burn cases on the basis of history given by relative. We find that motive of incidence among study group that describe the motives which provoked the victims for accidental, suicidal, homicidal deaths. Careless in work was observed to be the major in 304 cases i.e. 67.56% provocative factor accident, followed by impulsive nature of victims cases 136 i.e. 30.22% and love

failure victims cases 3 i.e. 0.67% was provoked suicidal. Dowry death victim was female only 1 i.e. 0.22% and extramarital affair of woman 1 cases 0.22% provoke homicide by her husband (based on history by relative and in-laws).

Other study in contrast to this and explain that motive behind manner of dowry death was observed to be the major 45.2% provocative factor for female to commit suicide. Ill treatment by husband or in laws is another major reason leading to 21.4% death [17].

## 6. CONCLUSION

- Most of the burn attempt due to accidental burn 64.44% only 2.44% female cases are homicidal.
- Cases as like Careless 67.56 %, Impulse 30.22%, Dowry 0.22%, Extramarital affair 0.22% and Love failure 0.67%.
- Suicidal incidents in women because of dowry problems occur usually between 21 and 30 years of age. Education amongst women decreases such suicides. Incidents occur mostly in nuclear families. Kerosene oil is used as an accelerant of burn in most of the victims.
- 14.29% which forms a considerable bulk and draws attention to the grievousness of this problem.
- Educating the people about safety measures through various programmes, television, and other media, warning label or cautionary information accompanying the sale of gasoline, kerosene or petrol into any container.
- Intersectorial coordination.
- Running anti-dowry campaigns.

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This research was not financially supported by any funding agencies.

## 9. ETHICS STATEMENT

The present study was approved by "Institutional Ethics Committee" of Institute of Medical Sciences, Banaras Hindu University. All the information has been taken under consideration of medical ethical committee.

## 10. CONFLICT OF INTEREST

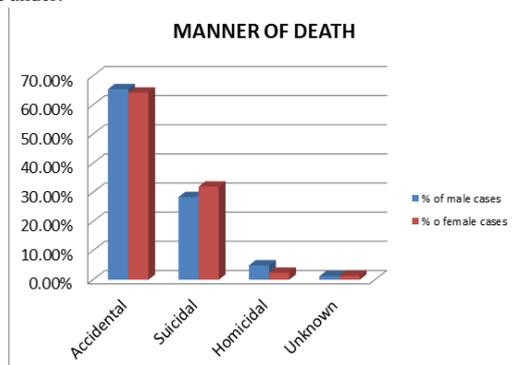
Nil

## 11. TABLES AND CHARTS

**TABLE 1. Distribution of burn cases on the basis of manner of death among study group (N=450):**

Manner of death	Total No. of cases	% of total cases	Male	% of male cases	Female cases	% of female cases
Accidental	290	64.44	53	65.43	237	64.23
Suicidal	141	31.33	23	28.40	118	31.98
Homicidal	13	2.89	4	4.94	9	2.44
Unknown	6	1.33	1	1.23	5	1.36
<b>Total</b>	<b>450</b>	<b>100.00</b>	<b>81</b>	<b>18.00</b>	<b>369</b>	<b>82.00</b>

Graphical representation of table discussed above is shown by diagram here under:



**Figure 1: Column diagram shows distribution of burn cases on the basis of manner of death among study group (N=450).**

**Table 2: Distribution of burn cases on the basis of motive of incidence among study group (N=450):**

Motive	Total No. of cases	% of total No.
Dowry	1	0.22
Careless	304	67.56
Impulse	136	30.22
Extramarital affair	1	0.22
Love failure	3	0.67
Unknown	5	1.11
<b>Total</b>	<b>450</b>	<b>100.00</b>

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