

Original Research Paper

Burn Deaths: A Study on Female Victims in Manipur

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Abstract

This retrospective study was carried out in a tertiary care hospital during 2004 to 2013 to assess the pattern of burn deaths amongst females in the State of Manipur. Out of the total 38 burn cases brought for autopsy, 26 were female burn cases. The highest number of victims was in the age group of 21 to 30 years (53.85%). Majority of the cases were non-Manipuris (57.69%) and 84.62% of the victims were married. The body surface area involvement of >80% was observed in 61.54%, and 57.69% of the cases died within 24 hours. The cause of death was due to burn shock in 65.38%, and the nature of death was accidental in 50% of the cases. History of domestic violence was present in 40% of the suicidal deaths and in all the three cases of homicidal deaths. High mortality in young married women from burns is attributed to dowry in rural India. Dowry system is almost non-existent in the State of Manipur, and it is reflected in the present study where majority of the female victims of burns were non-Manipuris residing in this State.

Key Words: Female, Burn, Nature of Death, Dowry, Non-Manipuri

Introduction:

Burns are injuries produced by application of dry heat and these injuries are one of the most destructive injuries. Burns constitute a major role in mortality and morbidity in the entire world and these are the fourth most common type of trauma worldwide, following traffic accidents, falls and interpersonal violence. [1] According to WHO (2000) report, 2, 38,000 individuals died of fire related deaths and 95% of these deaths occurred in low and middle income countries. [2] A significant number of deaths in India occur due to burns every year and over 10,00,000 people are moderately or severely burnt every year in this country. [3]

About 60,000 people suffer from burn, more than 50,000 treated in hospitals and about 10,000 succumb to the thermal injuries in India. [4] Interestingly, in India, burn injury is one of the important causes of deaths, specifically in females.

The reasons for this endemic are manifold like dowry, marital infidelity, sexual jealousy, and oedipal dominance of mother in-law over the grooms, etc. [5] The present study has been taken up to assess the pattern of female deaths in this part of the country and factors associated with such female deaths.

Materials and Methods:

This retrospective study was carried out in a tertiary care teaching institute in Manipur during the period of 10 years from 2004 to 2013 to assess the pattern of burn deaths amongst females. A thorough analysis of the history and post-mortem findings was carried out.

The age, caste and marital status of the victims, the place and time of occurrence, involvement of body surface area in burns, survival period, cause and nature of deaths, etc. were studied, and these findings were statistically analysed.

Observations and Results:

Out of the total 38 burn cases brought for autopsy during the period of 10 years from 2004 to 2013, 26 were female burn cases. (Fig. 1) In this study the highest number of victims was observed in the age group of 21 to 30 years (53.85%) followed by 15 to 20 years (23.08%). (Fig. 2) Interestingly, majority of the cases were non-Manipuris (57.69%) in our study. (Fig. 3) This study showed that 84.62% of the victims were married. (Fig. 4)

In present study we observed that 76.92% of the cases died at the hospital and 23.08% died at the site of the incident. (Fig. 5)

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DOR: 09.02.2015 DOA: 10.08.2015

DOI: 10.5958/0974-0848.2015.00093.7

Most of the cases occurred during night time (57.69%). (Fig. 6) The body surface area involvement of >80% was observed in 61.54% cases (Table 1), and 57.69% of the cases died within 24 hours and 30.77% survived more than one week. (Fig. 7)

The cause of death was due to burn shock in 65.38% (Fig. 8), and the nature of death was accidental in 50% of the cases; suicidal in 38.46% and homicidal in 11.54% cases. (Fig. 9) History of domestic violence was present in 40% of the suicidal deaths and in all the three cases of homicidal deaths. (Table 2)

Discussion:

High mortality in young married women from burns is common in rural India and in the present study, the highest number of victims was observed in the age group of 21 to 30 years (53.85%). Similar findings were observed by Vaghela et al and Subrahmanyam. [1, 6]

Mori et al [7] observed that 62.74% of the female victims were married in their study, while 74.79% of the victims were married in another study by Vaghela et al. [1] These may be favourably compared with the findings of our study where majority of the victims were married (84.62%) and all these cases died at their marital homes. Interestingly, majority of the cases were non-Manipuris (57.69%) and the rest were constituted by Manipuri victims belonging to different ethnic groups.

Shinde and Keoliya [8] observed that out of the 94 female burn victims, 44 sustained burns in the night during 22:01 to 06:00 hours. Similarly, in the present study, most of the cases occurred during night time (57.69%).

In a study by Zanzad and Godbole [9], 12.2% of the female victims died within 24 hours, while 23.5% survived 1-2 weeks. However, in our study, 57.69% of the cases died within 24 hours and of these, 23.08% died at the site of the incident; only 30.77% survived more than one week. This could be due to the fact that 61.54% had >80% body surface area involvement and the cause of death was burn shock in 65.38% cases.

The nature of death was accidental in 50% of the cases; suicidal in 38.46% and homicidal in 11.54%. Zanzad & Godbole [9] observed that in 65.8% of the married female burn victims, the nature of death was accidental while 18.3% were suicidal and 15.8% were homicidal. In our study, history of domestic violence was present in 40% of the suicidal deaths and in all the three cases of homicidal deaths, and this was observed only amongst the Non-Manipuri victims.

Conclusion:

Most of the deaths amongst young married women from burns in rural India are attributed to dowry. Dowry system is almost non-existent in the State of Manipur, and it is reflected in the present study where majority of the female victims of burns were non-Manipuris residing in this State.

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Table 1: The Body Surface Area Involved

Body Surface area involved	Cases	Percentage (%)
<10% (only smoke & suffocation)	3	11.54
<40%	0	0
41-50%	0	0
51-60%	0	0
61-70%	0	0
71-80%	7	26.92
>80%	16	61.54

Fig. 1: Incidence of Female Deaths due to Burns (2004 - 2013)

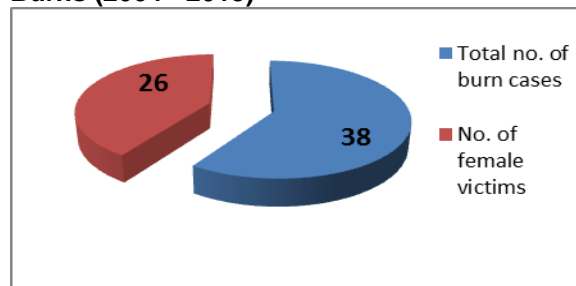


Fig. 2: Age Incidence of Female Burn Victims

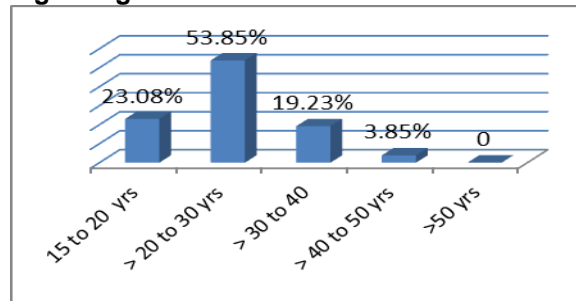


Fig. 3: Caste Distribution of the Victims

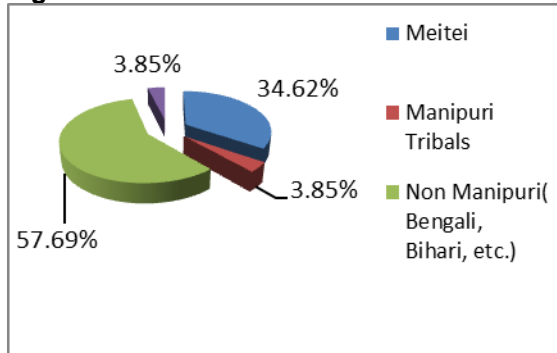


Fig. 4: Marital Status of the Victims

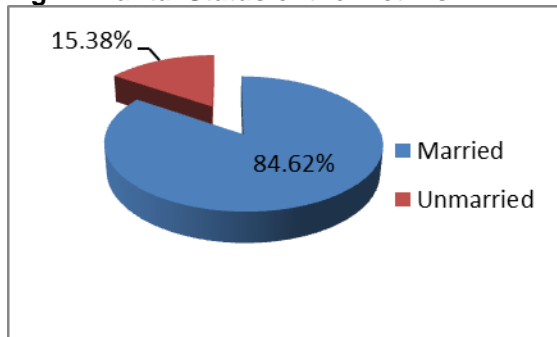


Fig. 5: Place of Death

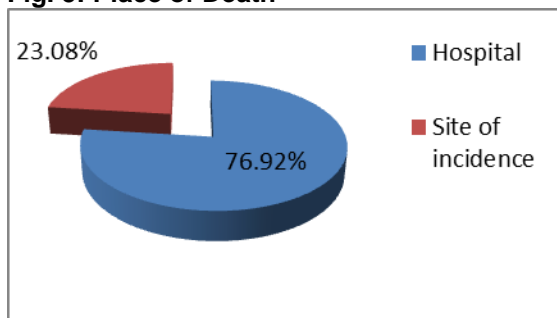


Fig. 6: Time of Occurrence

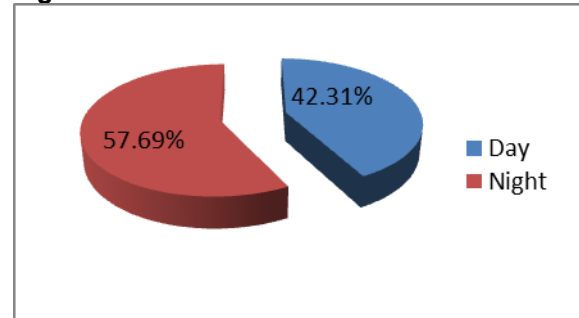


Fig. 7: Survival Period of the Victims

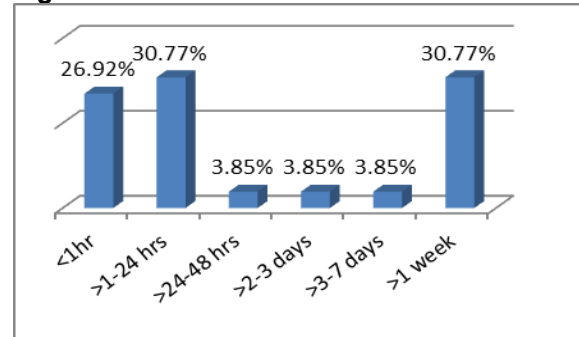


Fig. 8: Causes of Deaths in Female Burn Victims

