International Journal Dental and Medical Sciences Research
Volume 3, Issue 2,Mar-Apr 2021 pp 469-472 www.ijdmsrjournal.com ISSN: 2582-6018

Retrospective Study Of Burn Cases And Its Demographic Profile In Cims Bilaspur

Dr. Ulhas Gonnade, Dr. Shreenarayan Gole, Dr. Priyanka Soni,
Associate Professor & Head of Department, Department of Forensic Medicine & Toxicology, CIMS, Bilaspur,(C.G.)
, Assistant professor,Department of Forensic Medicine & Toxicology, CIMS, Bilaspur, (C.G.)
First year Post graduate Resident, Department of Forensic Medicine & Toxicology, CIMS, Bilaspur, (C.G.)

Submitted: 05-03-2021 Revised: 18-03-2021 Accepted: 20-03-2021

Abstract: Burn constitutes a major cause of mortality and morbidity whatever reason may be in the world and this country too, undoubtedly a severe burn injury is the most devastating injury a person can sustain and yet hope to survive, Burn is defined as an injury to skin or other organic tissue primarily caused by heat or due to radiation, radioactivity, electricity, friction and contact with chemical. The present study was undertaken at Chattisgarh institute of medical science Bilaspur in Department of Forensic Medicine. In present study deaths were retrospectively analysed from the available records of burn victims of 3 months, between July to September 2019 for the period of 3 months. IN present study data was analysed in view of age, gender, marital status, percentage of burn, hospital stay of victim, analysed data was tabulated and represented graphically.

Key words: Age, Burn, percentage of burn, marital status

I. INTRODUCTION:

Burning of married women in India is a major concern for the Government, law enforcing authorities, the judiciary, the police and medico-legal experts all over the country The impact of burns, especially severe ones, is worse in the developing countries compared to high income countries because of infections and lack of adequate physiotherapy. (1)

II. OBJECTIVES :

•To collect data to find out information related to age, gender, marital status, and surface area of burn to prepare policy to prevent occurrence of burn cases.

•To study the time interval from incidence of survivor and death.

•To study the cases according to manner and material involved in cases.

•To know the magnitude of mortality due to burns.

•To know the trends of death due to burns.

•To study burn cases according to pattern of burn with body surface area distribution

III. METHODOLOGY :

• The present retrospective study was conducted in the department of Forensic Medicine and Toxicology CIMS Bilaspur, Chattisgarh for the period of 3 months between July 2019 to September 2019.

•Information regarding age , gender, hospital stay, address, was gathered from the data available in the department, all cases of burn admitted in the hospital and the bodies which were received in the hospital for post-mortem examination, were included in study. Electrical burn cases were excluded from the study.

IV. RESULT :

• Out of total autopsies which were conducted at Department of Forensic Medicine and Toxicology, CIMS, Bilaspur (C.G.) during the study period from July 2019 to September 2019

• 40 deaths were due to burns.

• 39 cases were admitted in the hospital and

• Only 1 case was brought dead to the hospital. There was no regular pattern in the incidence of burn over the study period.

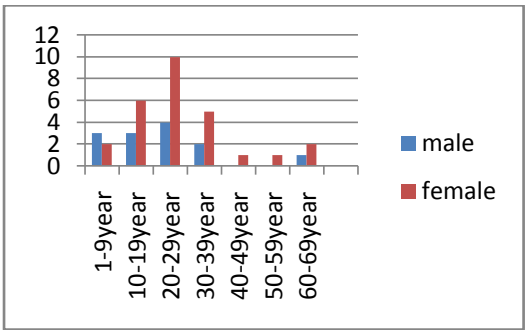
Frequency Table-1: Age wise distribution of Burn victims.

Age Group	Frequency	Percent
1years-09 years	5	12.5
10 years-19 years	9	22.5
20 years-29 years	14	35.0
30 Years-39 Years	7	17.5
40 years-49 Years	1	2.5
>50 Years	4	10.0
Total	40	100.0

International Journal Dental and Medical Sciences Research
Volume 3, Issue 2,Mar-Apr 2021 pp 469-472 www.ijdmsrjournal.com ISSN: 2582-6018

Frequency Table-1: Age wise distribution of Burn victims.

It is observed that maximum number of cases were found in the age group of 20-29 years, and minimum number of cases were found in the age group of 40-49 years. (Table-1)



Frequency Table-2: Survival period of burn victims.

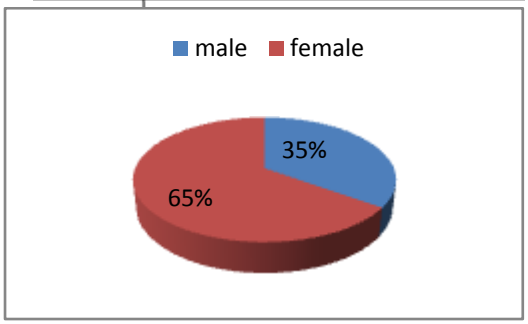
All cases studied for the period of survival Maximum period of survival was more than one week in 03 cases. Maximum number of cases died within 4-6 days of admission i.e. 19 (47.5%). 18 (45%) cases died within 1-3 days of

Survival	Duration	Frequency	Percent
Valid	01 days to 03 days	18	45.0
	04 days to 06dayas	19	47.5
	More than or equal to one week	3	7.5
	Total	40	100.0

Frequency Table –3 (A): Gender wise distribution of cases.

It is observed that out of 40 cases of burn 26 cases were female i.e. 65% and 14 cases were malei.e. 35%.Regarding the gender distribution Female deaths are more than the Male. (Table-3)

Gender	No. ofcases	Percentage %
Male	14	35%
Female	26	65%
Total	40	100%



Frequency Table – 3 (B): Age and Gender wise distribution.

It is observed that out of 26 cases of Female burn 10 cases i.e. 38.46% were between age group of 20-29 years.

Age group	Male	Female	Total
0 -09 year	3	2	5
10-19 year	1	4	5
20-29 year	6	10	16
30-39 year	2	5	7
40-49 year	1	2	3
50-59 year	0	1	1
60-69 year	1	2	3
Total	14	26	40

Frequency Table -4 : Marital status wise distribution.

It is observed that in out of 40 cases of burn 23 cases were married i.e. 57.5% and 17 cases were unmarried i.e. 42.5%.

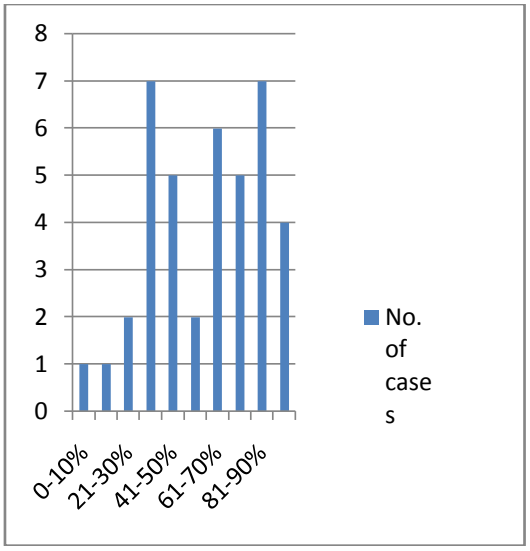
International Journal Dental and Medical Sciences Research
Volume 3, Issue 2,Mar-Apr 2021 pp 469-472 www.ijdmsrjournal.com ISSN: 2582-6018

Marital status	No. Of cases	Percentage %
Married	23	57.5%
Unmarried	17	42.5%
Total	40	100%

Frequencyt Table – 5 : Distribution of burn over total body surface area.

Taking the body surface area into consideration, it was observed that more than 81-90% and 31- 40% of body surface area were involved in 7 (17.949%) cases each. (Table-4)

Percentage of Burn	No. Of cases	Parcentage of cases
0-10	1	2.564
11-20	1	2.564
21-30	2	5.128
31-40	7	17.949
41-50	5	12.821
51-60	2	5.128
61-70	6	15.385
71-80	5	12.821
81-90	7	17.949
91-100	4	10.256
Total	40	100



V. DISCUSSION:

Out of total 40 burn cases 57.5 percent were married and 42.5 percent were unmarried and total 108 (18.3%) burns deaths were observed by the Mohanty S et al3. In present study data shows that death due to burns are more common amongst the married person may be due to the reason associated with the marriage. Both in married and unmarried person female were the common victims.Seventy five percent of female burns victims were observed from Virendra Kumar et al2. In present study we find that incidence of burns is more common among females in all age groups except in the age group 0 to 09 years of age, where male are at higher risk and among all age groups 65% are females.

In a study of Virendra Kumar et al2, about 78% of the victims were in the age group of 11-40 years.Highest deaths reported between age 21-30 years in study conducted at North Karnataka by Tapse SP et al4.In Manipal Palimar V and Raghavendra Babu Y.P5 conducted 14 years retrospective study in age below 18 years and found that, out of total 42 cases, maximum cases 18 (42.8%) of burns present between the age 13-18 years.In our study about 35% of the victims were in the age group of 21 to 29 years, and about 22.5% of the victims were in the age group of 10 to 19 years. In the study of virendra kumar et al2, the overwhelming majority (92.50%) of the victims had more than 40% of total body surface area (TBSA) burns indicating the incompatibility with life even at a tertiary care center.About 94% mortality are over 40% of TBSA reported in study from North Karnataka by Tapse SP et al4.In Manipal, in study of Palimar V et al5, below 18 years of age, (23/42) 54.9% of deaths were reported with burns above 60% of TBSA. In our study, 17.949% mortality are over 31-40% & 81-90% of TBSA. Tapse SP et al4 , in their study reported about 49% burns deaths below one hours, and about 08% deaths between 3 to 7 days and 78% death within one week. In our study 47.5% of burns deaths are within a week and 45% burns deaths between 1-3 days of the incidence of burns.

VI. CONCLUSION:

The present study highlights the following features pertaining to the burn deaths:

Majority of deaths occurred in the married (about 57.5%) subjects.

Majority of the burns victims are females of 20-29 age (about 65%).

Peak incidence of mortality due to burns is in young age groups (21-29)

Most of the mortality present above 40% of TBSA.

Majority of deaths occurred within a week of the incidence (about 47.5%)

REFERENCES:

[1]. Park, K. Accidents and Injuries,Burn Park's Textbook of Preventive and Social Medicine.2009, 20th edition, M/s Banarsidas

bhanot, 1167,Prem Nagar, Jabalpur, 482001(M.P.) India, 353-355.

[2]. Virendra Kumar, Mohanty MK, Kanth S.Fatal burn in Manipal area: a 10 year study.Burns.2007; 14:03-06.

[3]. Mohanty S, Sahu G, Mohanty MK, Patnaik M.Sucide in india-A four year retrospective study.Burns. Journal of Forensic and Legal Medicine 2007;14:185-189.

[4]. Tapse SP, Shetty VB, Jinturkar AD. A Study of burn deaths in North Karnataka. Indian Journal of Forensic Medicine and Pathology 2010;3(4):149-155.

[5]. Palimer V, Raghvendra Babu Y.P. Fatal burns in children. journal of Indian Academy of forensic medicine 2009; 31(2)122-124