

## Original Research

### To evaluate the cases of burns in general population

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#### ABSTRACT:

**Background:** Burn injuries occur universally and have adversely affected mankind. The present study was conducted to evaluate the cases of burns in general population. **Materials & Methods:** The present study was conducted in the department of general surgery. It included 56 patients of burns of both the genders. Patients were carefully examined and managed in department. Factors such as etiology and degree of burns were noted. **Results:** Out of 56 patients, males were 32 and females were 24. 1<sup>st</sup> degree burn was seen in 10 males and 6 females, 2<sup>nd</sup> degree in 16 males and 8 females, 3<sup>rd</sup> degree in 4 males and 6 females and 4<sup>th</sup> degree in 2 males and 4 females. The difference was non-significant (P= 0.2). **Conclusion:** Authors found that burn cases were commonly seen in males. Maximum patients were of second degree burn.

**Key words:** Burn, injury, Morbidity.

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#### INTRODUCTION

Burn injuries occur universally and have adversely affected mankind since antiquity till the present day.<sup>1</sup> In all societies burns constitute a serious medical and psychological problem. It has also severe economic and social consequences not only to the individuals, but also to their family and society in general. In developing countries, the problem of burn injuries is more severe due to the reason that the care of burn patients requires specialized units that are expensive and not always readily available.<sup>2</sup>

According to World Health Organization, South Asia region alone, contribute over one-half of the total number of fire-related burn deaths worldwide. Most of the burn incidents occurs in domestic settings because of house hold appliances, inflammable agents at home, clothing burns and in some cases also self inflicted. Majority of burn injuries sustained by children occur at home as an accident.<sup>3</sup> Thus most of these injuries are preventable. In India, various sociocultural factors come into play when burns cases are

investigated. Some of these factors include dowry deaths, use of firecrackers in festivals, poor housing conditions, illiteracy, and poverty.<sup>4</sup>

Superficial or first-degree burns affect the superficial skin layers. They appear red without blisters and pain typically lasts around three days. When the injury extends into some of the underlying skin layer, it is a partial-thickness or second-degree burn. Blisters are frequently present and they are often very painful.<sup>5</sup> The present study was conducted to evaluate the cases of burns in general population.

#### MATERIALS & METHODS

The present study was conducted in the department of general surgery. It included 56 patients of burns of both the genders. All were informed regarding the study and written consent was obtained. Ethical clearance was obtained before starting the study.

General information such as name, age, gender etc. was recorded. Patients were carefully examined and managed in

department. Factors such as etiology and degree of burns were noted. Results obtained were tabulated and analyzed. P value<0.05 was considered significant.

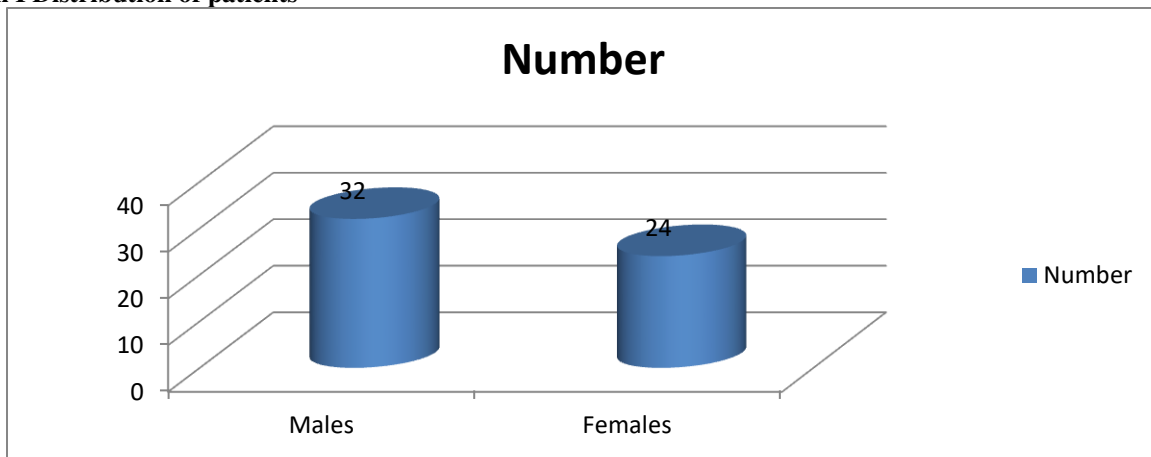
**RESULTS**

**Table I Distribution of patients**

Total- 56		
Gender	Males	Females
Number	32	24

Table I, graph I shows that out of 56 patients, males were 32 and females were 24.

**Graph I Distribution of patients**

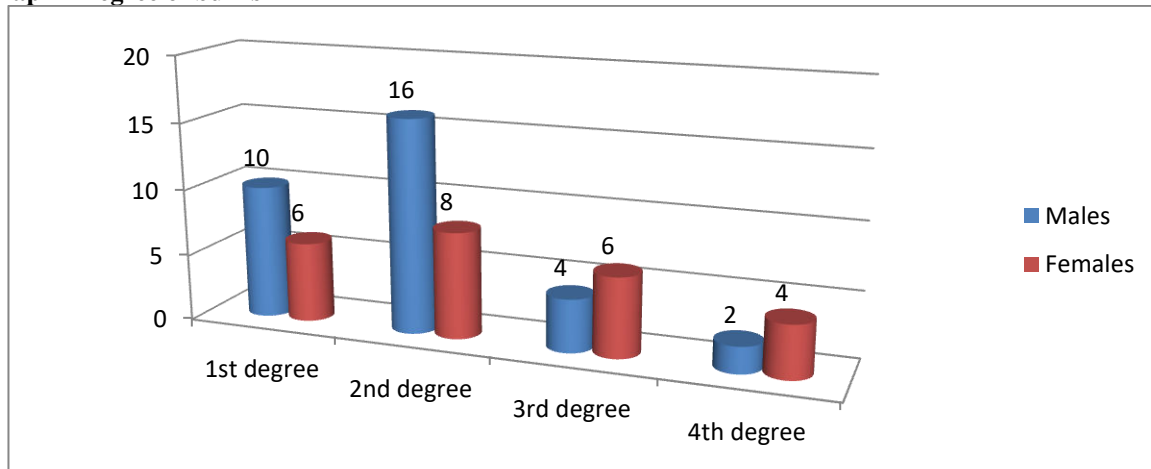


**Table II Degree of burns in patients**

Degree	Males	Females	P value
First degree	10	6	0.02
Second degree	16	8	0.01
Third degree	4	6	0.05
Fourth degree	2	4	0.05

Table II, Graph II shows that 1<sup>st</sup> degree burn was seen in 10 males and 6 females, 2<sup>nd</sup> degree in 16 males and 8 females, 3<sup>rd</sup> degree in 4 males and 6 females and 4<sup>th</sup> degree in 2 males and 4 females. The difference was non- significant (P- 0.2).

**Graph I Degree of burns**



## DISCUSSION

Burn injuries are a significant cause of morbidity and mortality throughout the world. Burn injuries perhaps represent the widest spectrum of any form of trauma. A burn is mostly caused by heat or due to electricity, friction or contact with chemicals resulting in injury to the skin or other organic tissue. The incidence of burn injuries was ranked fourth amongst all the injuries in world. An important cause of death in developing countries of South Asia is burn injuries.<sup>6</sup> The present study was conducted to evaluate the cases of burns in general population.

We found that out of 56 patients, males were 32 and females were 24. All cases of burns require some degree of medical attention and many of the patients end with severe morbidity or even death. People affected are mostly of poor socioeconomic status and of employable age. Initial management of burns is very important. First aid measures like wound cooling and removal of source of injury significantly improves outcome, decreases morbidity and also health costs. Lack of facilities in most public sector hospital and insufficient personnel to take care of this group of patients increase the morbidity and mortality.<sup>7</sup>

Morrow et al<sup>8</sup> suggested that burn injuries constitute a major public health problem. A hospital-based descriptive observational study was conducted among 83 burn patients to assess the demographic and clinical profile of burn patients and to study the medicolegal and social causes. Majority of patients were females (61.5%), literates (78.4%), hindus (79.5%) and in the age group of 20-39 years (56.6%). Occupation-wise housewives were 36.1% followed by students (16.8%). Majority of the cases (61.4%) were accidental whereas suicidal and homicidal cases were 18.1% and 20.5% respectively. According to the size 25.3% patients had 20% -39% of body surface burns and 21.7% had 80% or more burns. 53% of the cases were given blood transfusion and 23.5% died in the study period.

Healing can require up to eight weeks and scarring may occur. In a full-thickness or third-degree burn, the injury extends to all layers of the skin. Often there is no pain and the burnt area is stiff. Healing typically does not occur on its own. A fourth-degree burn additionally involves injury to deeper tissues, such as muscle, tendons, or bone. The burn is often black and frequently leads to loss of the burned part.<sup>9</sup>

Burd et al<sup>10</sup> conducted a study in which a total of 122 pediatric burn cases were studied. Male children (57%) were more commonly affected. 93% burns were accidental in aetiology, however a significant number of suicidal burns was noted (6.5%). Average percentage of total body surface area (TBSA) burnt was 34.06%. Scalds was the most common mode of injury in toddler age group (0-5 years), whereas thermal & electrical burns were more common in older children. In our study, 70% of instances needed surgical intervention and the overall mortality was 13.64%. This study highlighted the aetiology and risk factors for burns in children of different age groups, which help in

establishing safety measures that can be included in preventive programs. Through a combination of prevention strategies and improved burns care, considerable progress can be made not only in lowering the death rates, but also in achieving the goal of physical, social and psychological rehabilitation in paediatric burn patients.

## CONCLUSION

Authors found that burn cases were commonly seen in males. Maximum patients were of second degree burn.

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