



Pattern of Burn Injury at Mayo Hospital, Lahore

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ABSTRACT

Objective:

To determine pattern of diversified types of injury.

Place and Duration of Study:

The current research was carried out from Sept 2018 to Dec 2018 at the Burn Department, Mayo Hospital, Lahore.

Materials and Methods:

At the Burn Centre, Mayo Hospital, Lahore 4000 patients' medico legal records was selected and collected. The review of data was under the consideration of fatality, sex and types of burn. SPSS version 17 was used for analysing the data and according to procedure the percentages & frequencies were recorded.

Results:

In the current research there were 4000 patients and mostly were having injury from fire burn 68.35%, scars burn 20.6%, electrical burn 8.12% and acid burn 2.92%. Majority burns were non-fatal and in male gender.

Conclusion:

In our society, males were in majority among the burn victim who are sustaining fire burn injury as they are more exposed to particularly at their work places. There is a need of an intensive program for reducing and preventing the burn injuries with estimation to obtain good result.

Key Words: Burn Injury, Fire Burn, Mortality, Scalds.

INTRODUCTION

The definition of burn is as a type of thermal injury produced by heat, chemicals, lightning, electricity, friction, radiation and explosions. Injury from burn is a distinctive kind of trauma, sometimes which is preventable and is categorised one of the most-hard injury experiences by an individual, it is the highly destructive nature injury among all and sometimes it appears as international public health issue. The severe nature of injury of fire burn can be ascertain from Muslim Faith according to them Allah will order punishment by burning. It is relevant mention

here that the types, causes and incidence of burns are different in all other countries subject to sex, age, local and social customs, financial status and physical environment. Burn is the 4th main cause of injury after fall, traffic injury and violence.

Around 11 million victims of burn were given medical treatment and more than 300,000 dies annually. The main problem among the developing countries is the over-crowding and cooking in open constructed kitchen which is adding 90% to the victims of burn across the world. It has been found that mortality rate is twice among men as compared to women in the developed world whereas women have twice rate of mortality as compared to men in the developing countries. The main public health issue in the 3rd World countries is the burn injury. In fact, 90% incidence are happening in under developing countries. The reason behind of this occurring is the absence of infrastructure to avoid the occurrence or lessening of severity. Degree and duration of heat exposure are the main element with which burn outcome is influenced. More susceptible are young children, old and females. Burn injury is more fatal if it involves face, genitals or chest. The outcome and severity of burns is closely connected with the burn type and age. It has been reported from India that there are 700,000 to 800,000 annual burn victims and mostly among them were females.

MATERIALS AND METHODS

The research covered all the medico-legal burn injury cases during Sept 2018 to Dec 2018 in Mayo Hospital's Burn Centre, Lahore. The medical legal records for 4000 patients were selected and collected. The review of data was under the consideration of fatality, sex and types of burn. SPSS version 17 was used for analysing the data and according to procedure the percentages & frequencies were recorded.

RESULTS

The records of 4000 patients indicated that males (3159; 78.97%) have more burns as compared to females (841; 21.02%) as shown in the Table 1.

**Table 1:** Gender distribution

Gender	Number (Percentage)
Male	3159 (78.97)
Female	841 (21.02)
Total	4000 (100)

The frequency of burn fatality indicated that non fatal burns (1054; 26.35%) are more as compared to fatal burns (1054; 73.65%), as shown in the Table 2

Table 2: Frequency of fatality of burn

Fatality	Number (Percentage)
Fatal	1054 (26.35)
Non-fatal	2946 (73.65)
Total	4000 (100)

The Table 3 showed that cause of burn was fire for 2734 (68.35%) patients, followed by scald burn (824; 20.6%), electrical burn (325; 8.12%) and acid burn (117; 2.92%) as shown in the Table 3.

Table 3: Distribution according to cause of burn

Cause	Number (Percentage)
Fire burn	2734 (68.35)
Scald burn	824 (20.6)
Electrical burn	325 (8.12)
Acid burn	117 (2.92)
Total	4000 (100)

DISCUSSION

Across the globe, severity of burn injury is the main health issue with increased rate of mortality, morbidity and economic loss. In Pakistan, there is high frequency of medico-legal burn case same as other under developing countries. In Lahore, the burn injury is the main cause of death and this is happening due to the lack of awareness and fewer preventive actions. According to the research conducted in 2003, India has 15.1 per 100,000 high mortality rate. The morbidity rate 62.27% has been shown by the non-fatal case and among them mostly patients recovered, and some were left with medical advice and a few were referred to different sections of the hospital. In this way, 13% burn injuries were because of scalds, 8.80% are due to electrical burn and 2.02% are due to chemical burns. That during 2006 to 2010 a likewise research was carried out in Civil Hospital Karachi which revealed that burn injuries (79%) are mostly due to electrical burn (7.7%), chemical burn (3%) and scalds 5.2%. The current study observed that men are the common victim of the burn injury as the men have the responsibility of earning money for which they go out and involve in different professions at different work place with more exposure to injury which also include burn injury. The study carried out in 2011 in Peshawar at Khyber Teaching Hospital revealed that dominance of men with 51.1% over women with 48.8%. According to the study conducted by Ahmer et al. from 2006 to 2010 at Civil Hospital showed that ratio between men and women is 1:0.8. Main complication of burn injuries are infection that may

result septicemia, dehydration resulting in disfigurement, shock and disability. Notwithstanding the major improvements in the strategies of therapeutic for the patients' management having severe burns which also include, advanced wound coverage, better resuscitation, control of infection and management of inhalation injury, the severe burn effects are acrometic and outcomes in complicated metabolic changes with which every organ system can be affected adversely. The outcomes of the current study require to be brought under consideration as burn injury incidents are accounting a big amount of deaths because of sepsis and shock. Furthermore, sometimes the burn injury may end in hospital admission for longer period which need help that affect patient psychologically, physically and economically and a lot of consternation. In order to minimize the disabilities, surgical intervention is needed at a large scale.

CONCLUSION

Mostly the burn victims are men who have fire burn injury. In order to prevent and reduce the burn injury an intensive awareness program is required. General public awareness and education is the most imperative measure for lessening the occurrence of burn injury. A complete understanding of main risk element needs effective prevention.

RECOMMENDATIONS

The measures that lessen the burn risk are educating children about prevention of burn and fire, smoke detector installation, prohibit smoking



and alcohol, emergency exits at home, work place, school, flame retardant cloths, fire drill practice and ensure the availability of fire extinguisher and awareness about its use. Measure required for the lessening of the burn severity by providing immediately first aid, quick medical attention, hospitalised if needed to give proper care under trained staff of burn care unit. Specialised burn units should be increased in number while considering the intensity of the issue and the city size. Emergency response team must be consisted

of skilled and train staff who can handle and control the burn cases. Philanthropist must be contacted in order to raise funds for it and be also encouraged to give munificently. The donors can be facilitated by the government by giving tax exemption. Mostly substandard electrical installation causes fire incidents because of short circuit. The government must make some regulations for maintaining the quality of goods and electrical wiring at domestic and commercial level.

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