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Original Research Paper

Pharma

CLINICAL PROFILE AND MANAGEMENT OF BURN PATIENTS ADMITTED IN RURAL TERTIARY CARE TEACHING HOSPITAL

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ABSTRACT

Background: The statement highlights the significant challenges associated with managing patients who have sustained severe burns. Despite advancements in therapeutic approaches such as improved resuscitation techniques, better wound coverage methods, infection control measures, and management of inhalation injuries, severe burns still lead to profound consequences. These consequences stem from complex metabolic changes that impact every organ system in the body. The aim of the study was to asses clinical profile and management of pain in burn patients.[1] [2] **Methods:** The study was a prospective hospital-based study on a total of 39 patients admitted in the department of surgery over a period of six months from September 2023-February 2024. Data were collected from the patient interview and case sheets of respective patients. Datas were collected, analysed with the use of statistical data. **Results:** Incidence rate of males 64% were higher than females 36%. The most affected age group were 21-30 years old 15(38.4%). Out of 39 patients, 30(76.9%) patients were affected by scald and 9(23.1%) patients were affected by flames. only 20 (51.3%) patients were stays <10 days and 19 (48.7%) patients were stays > 10 days in hospital. **Conclusion:** Burns requires immediate care. We should bring more awareness to the people and educate the people for household activities, industrial work and also encourage the people to take precaution measures who handles flammable thing.

KEYWORDS : Burn injury, pain management, wound.

INTRODUCTION

Burn injuries represent a significant global public health concern, ranking as the fourth most common cause of trauma worldwide following road traffic accidents, falls, and violence. These injuries result in considerable morbidity and mortality, particularly in low to middle income countries where approximately 90 percent of burns occur. Burn pain, stemming from the release of inflammatory mediators and stimulation of pain receptors in the skin, presents a formidable challenge in management.[1][2][3] Chronic pain affects a substantial proportion of burn patients, with estimates suggesting up to 52% may suffer from it. Management typically involves a combination of pharmacological interventions including analgesics, anti-inflammatory drugs, opioids, anticonvulsants, and antidepressants, alongside non-pharmacological modalities such as relaxation and cognitive-behavioral therapy[7].Despite the prevalence of burn cases, there is limited data on pain management in these patients. This study aims to address this gap by investigating epidemiological and clinical variables, common risk factors, and pain management strategies in burn patients within a surgical unit.[4]

MATERIALS AND METHODS

Study location: This study was carried out at the Surgery department at GCMCH in Chidambaram.

Study design: A Prospective study.

Sample size: A patient who were presented with burns in above 12 years old in surgery department from september 2023- February 2024.

Data collection: Datas were collected fron patient interview. Data collection form includes age, sex, history of patient, burn site, known complaints, medication they receive.

RESULTS

Gender Wise Distribution

From 39 patients, 25 patients were males and 14 patients were females afftected by burns.

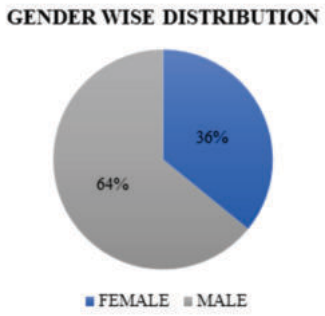


Fig 1: Gender wise distribution

Age Wise Distribution Of Burn Patients

The mostly affected age group was 21-30 years old which accounts 15 (38.4%) patients tatally followed by age group 13-20 years old was 9(23.1%) patients, 61-70 years old was 5(12.8%) patients, 31-40 years old was 4(10.3%) patients, 41-50 years old was 4(10.3%) patients and 51-60 years old was 5(12.8%) respectively.

Table 1: Age Wise Distribution Of Burn Patients

AGE GROUP	NO. OF PATIENTS (n=39)
13-20	9(23.1%)
21-30	15(38.4%)
31-40	4(10.3%)
41-50	4(10.3%)
51-60	2(5.1%)
61-70	5(12.8%)

Assessment Of Burns

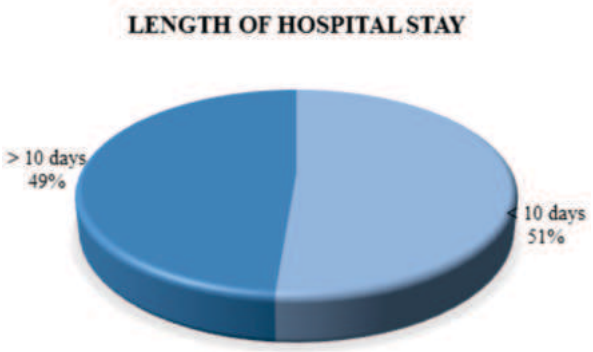
Out of 39 patients, 30(76.9%) patients were affected by scald and 9(23.1%) patients were affected by flames. A total of 27(69.3%) patients were accidentally got burns, 6(15.3%) patients got burns from suicidal attempt and 4(10.4%) patient SGOT burns from homicidal. we observed that the 29(74.3%) patients had superficial burn and 10(25.7%) patient had deep burns .

Table 2: Assessment of burn

Variables	Frequency	
Types of burn	Scald	30(76.9%)
	Flames	9(23.1%)
Nature of burn	Accidental	27(69.3%)
	Suicidal	6(15.3%)
	Homicidal	4(10.4%)
Depth of burn	Superficial	29(74.3%)
	Deep	10(25.7%)

Length Of Hospital Stay

Out of 39 patients, only 20 (51.3%) patients were stays <10 days and 19 (48.7%) patients were stays > 10 days in hospital.



Management Of Burns

All 39 patients were received normal saline from that 25 (64%) patients were also received ringers lactate and 5% dextrose. Analgesics like paracetamol received by 72% of patients, diclofenac received by 23 % of patient and opiod analgesics like tramadol were received by 5% of patients. Antibiotics like cefotaxime, ceftriaxone, metronidazole, piptaz and amikacin were given.

DISCUSSIONS

From 39 patients, 25 patients were males and 14 patients were females affected by burns. This current study was similar to Mulugeta et al.[1]

In our study, mostly affected age group was 21-30 years old which accounts 15 (38.4%) patients tatally followed by age group 13-20 years old was 9(23.1%) patients , 61-70 years old was 5(12.8%) patients, 31-40 years old was 4(10.3%) patients, 41-50 years old was 4(10.3%) patients and 51-60 years old was 5(12.8%) respectively. This study was contraindicated to the study by Banotra A et al. In his study Banotra A et al.[2]

We observe that 30(76.9%) patients were affected by scald and 9(23.1%) patients were affected by flames. A total of 27(69.3%) patients were accidentally got burns, 6(15.3%) patients got burns from suicidal attempt and 4(10.4%) patient SGOT burns from homicidal. we observed that the 29(74.3%) patients had superficial burn and 10(25.7%) patient had deep burns as in reports from Chakraborty S, et al.[8]

All 39 patients were received normal saline from that 25 (64%) patients were also received ringers lactate and 5% dextrose. Analgesics like paracetamol received by 72% of patients, diclofenac received by 23 % of patient and opiod analgesics like tramadol were received by 5% of patients were contraindicated by the study Shirkhoda M et al.[5]

Limitation

The primary limitation of our study stems from its hospital-based nature, which may not provide a comprehensive representation of the entire population. Consequently, we recommend that future research focus on population-based studies to better capture the broader demographics and characteristics of the target population. This shift in methodology can enhance the generalizability and validity of findings, providing a more accurate understanding of the phenomenon under investigation.

CONCLUSION

We concludes that the paients were affected by scald than other type of burns. Burns requires immediate care. We should bring more awareness to the people and educate the people for household activities, industrial work and also encourage the people to take precaution measures who handles flammable thing.

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Disclosure:

The authors report no conflicts of interest for this work.

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