

Analysis of Prevalence of Anxiety and Depression in Burn Patients at a Tertiary Care Hospital

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ABSTRACT

Background: Burn injuries result in both local and systemic responses. Psychological distress is among the most frequent and debilitating complications post-burn injury. Hence; the present study was undertaken for assessing the prevalence of anxiety and depression in burn patients.

Materials & Methods: A total of 30 burn patients were enrolled in the present study. Complete demographic and clinical details of all the patients were obtained. Clinical details included assessment total body surface area involved with burn. A master chart was prepared. Psychiatric status was examined by the administration of the Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders to each patient, by the psychiatrist. All the results were recorded in Microsoft excel sheet and were analyzed by SPSS software.

Results: 12 burn patients with psychiatric illness were males while the remaining 6 patients were females. Anxiety and depression were found to be present in 5 and 6 burn patients respectively. Non-significant results were obtained while assessing the gender-wise distribution of subjects according to

Psychiatric Diagnosis.

Conclusion: Anxiety and depression affect significantly the burn patients.

Key words: Anxiety, Burn, Depression, Psychiatric Illness.


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INTRODUCTION

Burn injuries result in both local and systemic responses. Burns are one of the most common and devastating forms of trauma. Patients with serious thermal injury require immediate specialized care in order to minimize morbidity and mortality. The survival rates for burn patients have improved substantially in the past few decades due to advances in modern medical care in specialized burn centers. Improved outcomes for severely burned patients have been attributed to medical advances in fluid resuscitation, nutritional support, pulmonary care, burn wound care, and infection control practices.¹⁻³

Psychological distress is among the most frequent and debilitating complications post-burn injury. Preliminary reports using the Burn Model System (BMS) dataset indicated that one-third of patients with major burns had clinically significant psychological distress at the time of discharge, and the mean level of psychological distress in the BMS sample was significantly higher than that reflected in published data from a normative sample.⁴⁻⁶

Hence; under the light of above mentioned data, the present study was undertaken for assessing the prevalence of anxiety and depression in burn patients.

MATERIALS & METHODS

The present study was planned in the Department of Psychiatry, Chirayu Medical College & Hospital, Bhopal, Madhya Pradesh

(India) with the aim of assessment of prevalence of anxiety and depression in burn patients. Ethical approval was obtained from institutional ethical committee and written consent was obtained from all the patients after explaining in detail the entire research protocol.

A total of 30 burn patients were enrolled in the present study. Complete demographic and clinical details of all the patients were obtained. Clinical details included assessment total body surface area involved with burn. A master chart was prepared. Psychiatric status was examined by the administration of the Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders to each patient, by the psychiatrist.⁷ All the results were recorded in Microsoft excel sheet and were analyzed by SPSS software. Chi-square test was used for assessment of level of significance.

RESULTS

In the present study, a total of 30 patients were enrolled. Among these 30 patients, in 50 % of the patients, upto 40 percent of total body surface area (TBSA) was involved, while in remaining 50 % of the patients, more than 40 percent of TBSA was involved. Psychiatric illness was found to be present in 60 percent of the patients (18 patients). Majority of the burn patients with psychiatric illness belonged to the age group of 26 to 55 years of age.

In the present study, 12 burn patients with psychiatric illness were males while the remaining 6 patients were females. Anxiety and depression were found to be present in 5 and 6 burn patients

respectively. Non-significant results were obtained while assessing the gender-wise distribution of subjects according to Psychiatric Diagnosis.

Table 1: Distribution of subjects according to Percentage of Burn (TBSA %)

Percentage of burn (TBSA %)	Frequency	Percentage
Upto 40%	15	50
More than 40%	15	50
Total	30	100

Table 2: Distribution of subjects according to Psychiatric illness

Psychiatric illness	Frequency	Percentage
Present	18	60
Absent	12	40
Total	30	100

Table 3: Distribution of subjects with psychiatric illness according to age

Age group (years)	Frequency
15- 25	2
26- 35	6
36- 45	4
46- 55	3
56- 65	3
Total	18

Table 4: Distribution of subjects with psychiatric illness according to gender

Gender	Frequency
Male	12
Female	6
Total	18

Table 5: Distribution of subjects according to Psychiatric Diagnosis

Psychiatric Diagnosis	Number
Depression	6
Anxiety	5
Post-Traumatic Stress Disorder	3
Substance Abuse	3
Dual Diagnosis	1
None	12
Total	30

Table 6: Gender-wise distribution of subjects according to Psychiatric Diagnosis

Psychiatric Diagnosis	Gender		Number of patients	p- value
	Males	Females		
Depression	4	2	6	0.15
Anxiety	3	2	5	
Post-Traumatic Stress Disorder	2	1	3	
Substance Abuse	2	1	3	
Dual Diagnosis	1	0	1	
None	6	6	12	
Total	18	12	30	

DISCUSSION

Over the last decades, the increase in the rate of survival of patients with burn injuries as a consequence of the development of new therapeutic approaches resulted in growing research on aspects of their psychosocial concomitants. The majority of the studies in this area indicated that a significant number of patients with burn injuries are exhibiting increased levels of postburn depressed mood, phenomena of psychological regression, feelings of despair and grief, as well as moderate levels of neuroticism and anxiety or even a postburn impairment in sexual

performance.^{8,9} Hence; under the light of above mentioned data, the present study was undertaken for assessing the prevalence of anxiety and depression in burn patients.

In the present study, a total of 30 patients were enrolled. Among these 30 patients, in 50 % of the patients, upto 40 percent of total body surface area (TBSA) was involved, while in remaining 50 % of the patients, more than 40 percent of TBSA was involved. Psychiatric illness was found to be present in 60 percent of the patients (18 patients). Majority of the burn patients with psychiatric

illness belonged to the age group of 26 to 55 years of age. Edwards RR et al assessed the prospective effects of anxiety and depression on pain and functional outcomes following burn injury. When studied in separate prediction models, both depression and anxiety were strong prospective predictors of greater pain, more fatigue, and physical dysfunction at the subsequent time point ($p < .01$). However, when both were included in a single model to study their unique effects, depressive symptoms (but not anxiety) emerged as a significant predictor of subsequent increases in pain and reductions in physical functioning, whereas anxiety (but not depression) predicted subsequent elevations in fatigue. These findings suggested potentially distinct effects of depression and anxiety and imply that assessment and early treatment of both depressive and anxiety symptoms may help improve a broad range of long-term pain-related outcomes following burn injury.¹⁰ In the present study, 12 burn patients with psychiatric illness were males while the remaining 6 patients were females. Anxiety and depression were found to be present in 5 and 6 burn patients respectively. Non-significant results were obtained while assessing the gender-wise distribution of subjects according to Psychiatric Diagnosis. McKibben JB et al used psychometrically sound methods to track and predict posttraumatic stress disorder (PTSD) across 2 years after burn. The principal objectives were to investigate the utility of self-report measures in detecting acute stress disorder (ASD) and PTSD, and in tracking and predicting PTSD. Participants were adult patients admitted for treatment of a major burn injury. The Stanford Acute Stress Reaction Questionnaire (SASRQ) was used to assess ASD symptomatology at discharge ($n = 178$), and the Davidson Trauma Scale was used to assess PTSD symptoms at scheduled follow-ups at 1 ($n = 151$), 6 ($n = 111$), 12 ($n = 105$), and 24 ($n = 71$) months after burn. The prevalence of in-hospital ASD was 23.6%, and 35.1, 33.3, 28.6, and 25.4% of the participants met PTSD criteria at 1, 6, 12, and 24 months, respectively. ASD and PTSD were prevalent following major burn injuries, ASD symptomatology can reliably predict PTSD up to 24 months later, and, once established, PTSD usually persists.¹¹ Dyster-Aas J et al studied psychiatric history in a population-based burn sample and its impact on symptomatology of depression and posttraumatic stress disorder (PTSD) at a 12-month follow-up. Seventy-three consecutive patients admitted to the Uppsala Burn Unit were assessed with the Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition for psychiatric disorders, of whom 64 were also assessed after 12 months. Two-thirds of burn survivors exhibit a history of lifetime psychiatric disorders. Those with a psychiatric history have a higher risk of postburn psychiatric problems.¹²

CONCLUSION

From the above results, it can be concluded that anxiety and depression affect significantly the burn patients. However; further studies are recommended.

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