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# **O**riginal Research

# Assessment of clinical profile of patients with pressure ulcers

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#### ABSTRACT:

**Background:**Pressure ulcers, sometimes referred to as decubitus ulcers or bed sores, are small, localized skin lesions that occur when soft tissue is crushed for an extended length of time between a bony prominence and an external surface. The present study was conducted to assess clinical profile of patients with pressure ulcers. **Materials & Methods:**135 patients with pressure ulcers of both genders were included in the study. Parameters such as education, marital status, length of stay in hospital, grade of ulcers (EPUAP grading), change of position, sensory perception, present diet etc. were recorded. **Results:** Out of 135 patients, males were 65 and females were 70.28 patients were illiterate, 52 had primary and 55 had secondary and above education. Marital status was unmarried42, married68 and divorced25. The length of stay in hospital was <7days in 45 and >7days in 90 patients. Grade of ulcers was grade 1-4 in 12, grade 5-8 in 25, grade 9-10 in 46 and grade > 10 in 52 patients. The change of position was seen in 62. Sensory perceptionfound to be completely limited in 42, very limited in 63 and no impairment in 30 patients. The present diet was NPO-IV fluid in 53, a high protein diet in 45, diabetic diet in 20 and normal diet in 17 patients. The difference was significant (P< 0.05). **Conclusion:** To reduce the occurrence, patients must receive appropriate monitoring. Strategies for preventing and reducing bed sores in hospitals must be developed.

Keywords: Pressure ulcers, diabetic, marital status

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#### **INTRODUCTION**

Pressure ulcers, sometimes referred to as decubitus ulcers or bed sores, are small, localized skin lesions that occur when soft tissue is crushed for an extended length of time between a bony prominence and an external surface.<sup>1</sup> Bedsores are a serious health issue for patients in all kinds of settings. Incidence of bedsores varies from 0.4 to 38.0% in major hospitals, 2.2 to 23.9% in those on long-term care and 0 to 17% in home care settings. Bedsores are associated with prolonged and expensive hospitalization. Because the blood flow is restricted and capillaries are constricted, it causes ischemia, necrosis of the tissue, and cell death. The underlying soft tissues deteriorate and necrotize as a result of the cutaneous tissues breaking or being destroyed. The pressure ulcer heals painfully and slowly as a result of this process.<sup>2</sup>

Depending on the patient's posture, pressure ulcers typically develop on bony prominences like the sacrum, shoulders, occiput, ear lobes, elbows, and trochanters.<sup>3</sup>Both intrinsic and extrinsic factors can be used to classify different risk factors for bedsores. Limited mobility, comorbidities like diabetes, chronic obstructive lung disease, congestive heart failure, cancer, renal dysfunction, poor nutrition, and aged skin are among the fundamental risk factors.<sup>4</sup> Shear, wetness, pressure, and friction are examples of extrinsic variables. Blood vessels are stretched and twisted by shear forces, which occur when a person slips toward the foot end of the bed as the head of the bed is raised. Excessive compression of the soft tissues between a bony prominence and the bed surface is a well-known extrinsic cause.<sup>5</sup>The present study was conducted to assess clinical profile of patients with pressure ulcers.

### **MATERIALS & METHODS**

The present study consisted of 135 patients with pressure ulcers of both genders. All gave their written consent to participate in the study.

Data such as name, age, gender etc. was recorded. Parameters such as education, marital status, length of

# RESULTS

# **Table I Distribution of patients**

| Total- 135 |      |        |  |  |
|------------|------|--------|--|--|
| Gender     | Male | Female |  |  |
| Number     | 65   | 70     |  |  |

Table I shows that out of 135 patients, males were 65 and females were 70.

#### **Table II Assessment of parameters**

| Parameters                 | Variables           | Number | P value |
|----------------------------|---------------------|--------|---------|
| education                  | Illiterate          | 28     | 0.73    |
|                            | Primary             | 52     |         |
|                            | Secondary and above | 55     |         |
| marital status             | Unmarried           | 42     | 0.94    |
|                            | Married             | 68     |         |
|                            | Divorced            | 25     |         |
| length of stay in hospital | <7                  | 45     | 0.01    |
| (days)                     | >7                  | 90     |         |
| grade of ulcers            | Grade 1-4           | 12     | 0.05    |
|                            | Grade 5-8           | 25     |         |
|                            | Grade 9-10          | 46     |         |
|                            | Grade > 10          | 52     |         |
| change of position         | Yes                 | 62     | 0.82    |
|                            | No                  | 73     |         |
| sensory perception         | Completely limited  | 42     | 0.05    |
|                            | Very limited        | 63     |         |
|                            | No impairment       | 30     |         |
| Present diet               | NPO-IV fluid        | 53     | 0.12    |
|                            | High protein diet   | 45     |         |
|                            | Diabetic diet       | 20     |         |
|                            | Normal diet         | 17     |         |

Table II, graph I shows that 28 patients were illiterate, 52 had primary and 55 had secondary and above education. Marital status was unmarried42, married68 and divorced25. The length of stay in hospital was <7daysin 45 and >7daysin 90 patients. Grade of ulcers was grade 1-4 in 12, grade 5-8 in 25, grade 9-10 in 46 and grade >10 in 52patients. The change of position was seen in 62. Sensory perception found to be completely limited in 42, very limited in 63 and no impairment in 30patients. The present diet was NPO-IV fluid in 53, high protein diet in 45, diabetic diet in 20 and normal diet in 17patients. The difference was significant (P< 0.05).

stay in hospital, grade of ulcers (EPUAP grading), ts with change of position, sensory perception, present diet etc. were recorded. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

# Graph I Assessment of parameters



## DISCUSSION

Usually, pressure ulcers are found above bone prominences. The majority of bedsores-80%-occur across the sacrum, ischia, lateral malleoli, heels, and greater trochanters.<sup>6,7</sup> Reduced suffering, morbidity, bed occupancy, workload, and healthcare costs can result from pressure ulcer prevention. It is a significant nursing care concern that calls for a deep comprehension of the etiological causes.<sup>8</sup> Regular repositioning has been demonstrated to dramatically reduce the formation of pressure ulcers, and the degree and length of immobility influence the incidence of bedsore development.9 Bedridden patients should have their positions adjusted every two hours, according to a documented timetable that is followed and documented. Research has demonstrated that the best position for bedridden patients is a thirty-degree oblique position.<sup>10,11</sup>The present study was conducted to assess clinical profile of patients with pressure ulcers.

We found that out of 135 patients, males were 65 and females were 70. Kaur et al<sup>12</sup> assessed the incidence of bedsores among the admitted patients in a tertiary care hospital. A pooled incidence of 5.9% was estimated. The incidence of bedsore was maximum in intensive care units (9.4%), followed by orthopedic emergency wards and units (8%). (7.7%)neurosurgical units (6%). The mean age was 44.6  $\pm$ 17.56 (14-90 years). Unconscious patients, those admitted through emergency, and those who stayed longer in emergency and on IV fluids had a significantly higher chance of developing bedsores. This also patients was true for on Jejunostomy/Gastrostomy feed or total parenteral nutrition (TPN); who needed elevation of the head end of the bed; for whom assistance was required to change their position; and the patients whose position was changed less frequently.

We found that 28 patients were illiterate, 52 had primary and 55 had secondary and above education. Marital status was unmarried42, married68 and divorced25. The length of stay in hospital was <7 days in 45 and >7days in 90 patients. Grade of ulcers was grade 1-4 in 12, grade 5-8 in 25, grade 9-10 in 46 and grade > 10 in 52 patients. The change of position was seen in 62. Sensory perceptionfound to be completely limited in 42, very limited in 63 and no impairment in 30 patients. The present diet was NPO-IV fluid in 53, high protein diet in 45, diabetic diet in 20 and normal diet in 17 patients. Gedamu et al<sup>13</sup> found that overall, 57.3% (242) and 82.9% (350) respondents were rural residents and Orthodox Christianity followers, respectively. The proportion of females were 49.3% (208), the majority of the study participants were found in the age range of 18-32 (50.2%), and the median age of the respondents was 32 years. The majority of the respondents (64.5%) were married and 18.5% (78) participants were single. About 36% (152) of the respondents were not educated and 12.1% (51) respondents completed grade 10 (Table 1). 3.2. Prevalence and Stages of Pressure Ulcer. A total of 71 pressure ulcers were detected in 422 patients, with a prevalence rate of 16.8%. The prevalence of pressure ulcer was higher in male respondents (42) than in female respondents (29). Based on EPUAP grading scale, 62% (44) and 26.8% (19) patients developed

stage I and stage II pressure ulcer, respectively. Among ulcer developed patients, 2.8% (2) constituted advanced stage (stage IV) of pressure ulcer. Of those who developed pressure ulcer, most of the participants 70.4% (50) developed sacral area and 10% (7) patients developed pressure ulcer at both sacral and shoulder area.

The limitation of the study is the small sample size.

### CONCLUSION

Authors found that to reduce the occurrence, patients must receive appropriate monitoring. Strategies for preventing and reducing bed sores in hospitals must be developed.

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