



ORIGINAL ARTICLE

Characteristics of Pressure Sore of Spinal Cord Injury Patients Attended at Crp.

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Abstract:

Purpose: The purpose of the study is to identify the Characteristics of pressure sore of spinal cord injury patients attended at CRP.

Objectives: To evaluate the characteristics of pressure sore among spinal cord injury patient attended at CRP.

Methodology: Method of the study was a cross sectional type of descriptive study which was conducted through face to face interviews, by using questionnaire with informed consent of the participants. Data were numerically coded and used in Excel and SPSS 20 version software program.

Result: Most of the participants had pressure sore 43% (n=13) participants were buttocks, 17 % (n=5) participants had pressure sore in coccyx region, 26% (n=8) participants had pressure sore in sacral region and 13 % (n=4) participants had pressure sore in leg. Among 30 participants, According to the degree of pressure sore, 13% (n=4) participants had one degree of pressure sore, 30% (n=9) participants had two degree of pressure sore, 40% (n=12) participants had three degree of pressure sore and 17% (n=5) participants had four degree of pressure sore.

Conclusion: Pressure sore is a serious complicated among SCI patients for which a lot of patients are dying every year. We must prevent pressure sore in order to improve rehab serious of SCI at institutional setting. Hospitals admit neurological impaired patients including SCI must administered appropriate measure to prevent ulcer.

Key words: Pressure sore, Spinal cord injury, Causes of pressure sore, Convulsion, Urinary incontinence, Lifting.

1.1 Background:

Pressure ulcers are one of the most common secondary complications of spinal cord injury (SCI) (Kroll et al., 2007). Increasing prevalence rates amongst individuals with SCI are attributed

to repeatedly spending prolonged periods of time in the seated position coupled with limited mobility and sensation (Chen et al., 2005).

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Supplementary information The online version of this article contains supplementary material, which is available to authorized users. Jan-Erik Lane 2022; Published by Current Science, Inc. This Open Access article is distributed under the terms of the Creative Commons License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited

Within rehabilitation, individuals with SCI are taught and encouraged to perform regular repositioning movements in order to redistribute the build-up of pressure around the ischial tuberosity and sacral regions. These repositioning movements include vertical push-ups, lateral and forward leans. Although recommended as often as every 15–30 minutes (National Pressure Ulcer Advisory Panel, 2007). Research has shown that concordance with regular repositioning is poor (Yang et al., 2009). Wheelchair users are reported to spend as much as 18 hours per day in their wheelchair, with many (54.7%) repositioning less often than once an hour (Yang et al., 2009).

Pressure ulcer management has become a nationwide healthcare priority. The scope of the problem is significant on multiple levels. Estimates indicate that 1–3 million people in the United States (US) develop pressure ulcers each year (Salcido., 2012).

Tissue injury is related to both extrinsic and intrinsic factors. Extrinsic factors include *pressure, shear, friction, immobility, moisture*. Intrinsic factors relate to the condition of the patient, such as sepsis, local infection, decreased autonomic control, altered level of consciousness, increased age, vascular occlusive disease, anemia, malnutrition, sensory loss, spasticity, and contractures (Bauer and Philips. 2008). It is known that relieving skin pressure over a bony prominence for 5 minutes every 2 hours will allow adequate perfusion and prevent tissue breakdown. More recently, an analysis by (Makhsous et al., 2007).

Chemical debriding agents achieve removal of necrotic tissue, Escher and slough by topical treatment of proteolytic enzymes on chronic wounds. Their mechanism of action relate to their enzymatic degradation of collagen and liquefaction of necrotic debris without damaging granulation tissue (Salcido et al., 2012).

Methods: The study was conducted by Quantative study design that was undertaken Characteristics of pressure sore of spinal cord injury patients of a selected hospital in CRP, Bangladesh with 30 samples included with the inclusion criteria. Data were collected by face to face interviewed method.

Data Analysis

The data analysis was performed in the program ‘Statistical Package for Social Science’ (SPSS) version 20. The presentation was performed in SPSS and in Microsoft office word 2010. Every questionnaire was rechecked for missing information or unclear information. At first put the name of variables in the variable 22 views of SPSS and the types, values, decimal, label alignment and measurement level of data.

Result and discussion

This chapter provides an overview of the findings and the results from the analysis were presented. The statistical Package for the Social Science (SPSS) and Ms- Excel spreadsheets were used to assist in the statistical analysis of the data from 30 participants from Centre for the rehabilitation of paralyzed (CRP) & Hospital. To avoid any bias in the data caused by discussion between the participants, the investigator was present at all times during the data collection. The data obtained from the study were analysed using descriptive statistics. According to the appropriate scales of measurement, measures of central tendency, frequency distribution and measures of dispersion were used to analyse and describe the data. The most significant results are discussed. Percentage analysis had appeared to be the most effective method for providing the greatest amount of information about how the participants answered these questions.

Table 1: Individual characteristics of the subject variables

Variable		(%) N
Sex	Male	(93%) 28
	Female	(7%) 2
Educational Qualification	Under SSC	(80%) 24
	SSC	(17%) 5

	HSC	(3%) 1
Cause of Pressure Sore	Same position	(40%) 12
	Surgery	(17%) 5
	Wound	(43%) 13
Place of pressure sore	Sacral region	(26%) 8
	Coccyx region	(17%) 5
	Buttock	(43%) 13
	Leg	(13%) 4
Measurement of pressure sore	1-2cm	(17%) 5
	2-3cm	(50%) 15
	3-4cm	(23%) 7
	4cm or more	(10%) 3
Stage of pressure sore	Stage-1	(13%) 4
	Stage-2	(30%) 9
	Stage-3	(40%) 12
	Stage-4	(17%) 5
Number of Pressure Sore	One	(67%) 20
	Two	(30%) 9
	Three	(3%) 1
Urinary Incontinence	Yes	(100%) 30
	No	(0%) 0
Urinary Infection	Yes	(13%) 4
	No	(87%) 26
Spasticity	Yes	(53%) 16
	No	(47%) 14

Tale 2: The between-subject analysis for association

Association between Measurement of pressure sore and Stage of pressure sore.	Chi-Square	P- value
	0.521	0.413

This observed Chi-square value was .521 and P value was .413. So the result was not significant that indicate there was association between

Measurement of pressure sore and Stage of pressure sore.

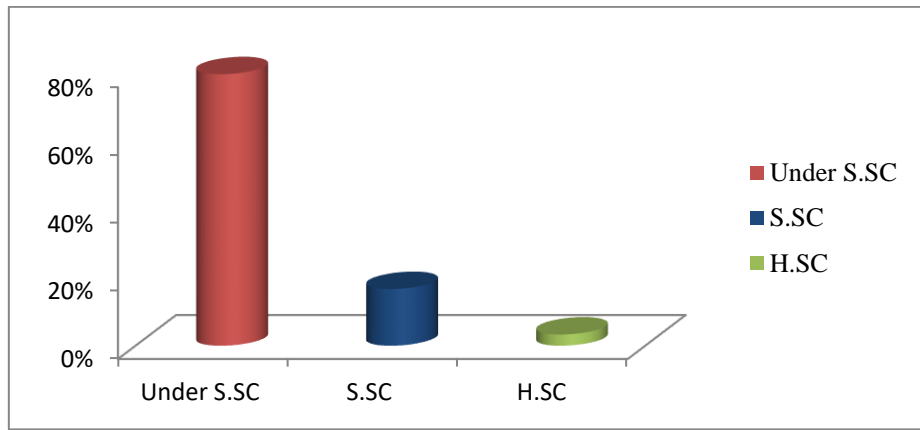
Association between urinary infection and convulsion of the participants.	Chi-Square	P- value
	0.053	0.043

This observed Chi-square value was 0.053 and P value was 0.043. So the result was significant that indicate there was association between urinary infection and convulsion of the participants.

Some important result showed in different chart:

Educational level of the participants:

Among the 30 participant who had pressure sore 80% (n=24) participants were under S.SC, 17% (n=5) participants had SSC and 3% (n=1) participants HSC of educational status.

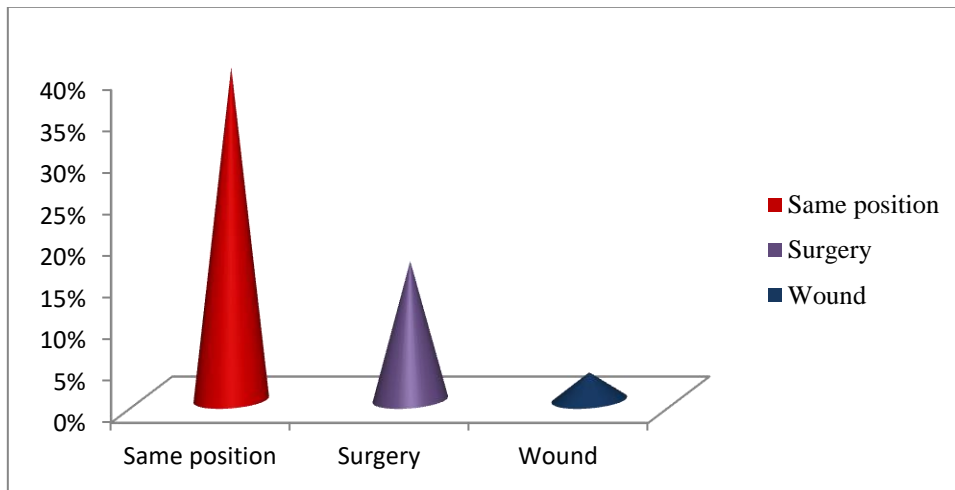


Information about Educational level.

Information about causes of pressure sore:

Among the 30 participants who had pressure sore

due to 40% (n=12) participants were same position, 17% (n=5) participants had surgery and 43% (n=13) participants had wound.

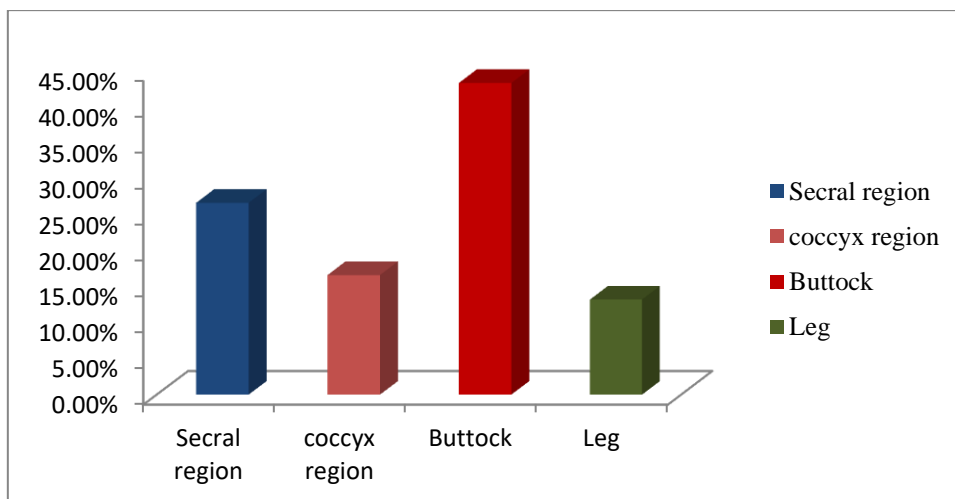


Causes of pressure sore of the participant

Place of pressure sore of the participants:

The place of pressure sore were 26% (n=8) participants got pressure sore in Sacral region,

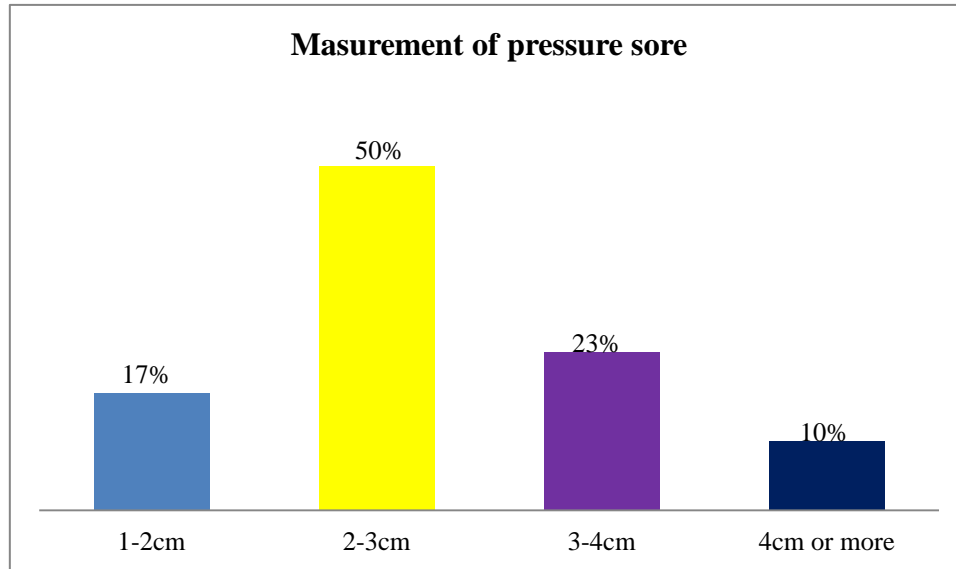
17% (n=5) participants got pressure sore in Coccyx region & 43% (n=13) participants got pressure sore in buttock & 13% (n=4) participants got pressure sore in leg.



Place of pressure sore of the participants Measurement of pressure sore of the participants

Among 30 participants, 17% (n=5) participants had 1-2cm of pressure sore, 50% (n=15)

participants had 2-3cm of pressure sore , 23% (n=7) participants had 3-4cm of pressure sore and 10% (n=3) participants had 4cm or more of pressure sore.

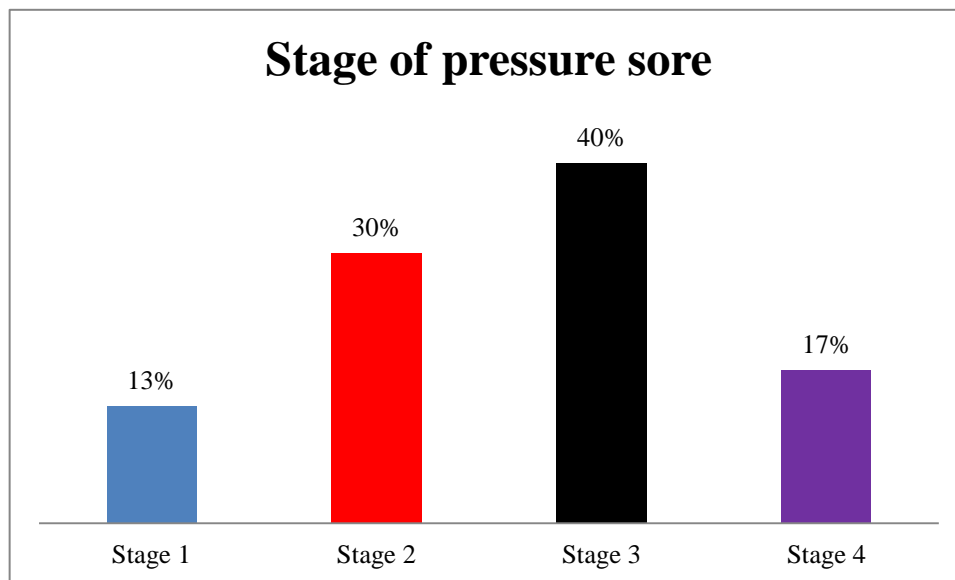


Measurement of pressure sore of the participants

Stage of pressure sore of the participants

Among 30 participants, 13% (n=4) participants

had one degree of pressure sore, 30% (n=9) participants had two degree of pressure sore, 40% (n=12) participants had three degree of pressure sore and 17% (n=5) participants had four degree of pressure sore.



Stage of pressure sore of the participants

Conclusion

The researcher explored the characteristics of pressure sore of spinal cord injury patients attended at CRP. The study was conducted on 30 participants who was admitted in Centre for the

rehabilitation of paralysed & Hospital where most of the participants had pressure sore 43% (n=13) participants were buttocks, 17% (n=5) participants had pressure sore in coccyx region, 26% (n=8) participants had pressure sore in sacral region and 13% (n=4) participants had pressure

sore in leg. Among 30 participants, According to the degree of pressure sore, 13% (n=4) participants had one degree of pressure sore, 30% (n=9) participants had two degree of pressure sore, 40% (n=12) participants had three degree of pressure sore and 17% (n=5) participants had four degree of pressure sore. Pressure sore is a serious complicated among SCI patients for which a lot of patients are dying every year. We must prevent pressure sore in order to improve rehab serious of SCI at institutional setting. Hospitals admit neurological impaired patients including SCI must administered appropriate measure to prevent ulcer.

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