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*Nursing care: making a big
difference in stage 3 bed sore*



NURSING CARE:
MAKING A BIG DIFFERENCE IN *STAGE 3 BED*
SORE
A CASE REPORT

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OVERVIEW

- ✘ Introduction
- ✘ Epidemiology
- ✘ Pathophysiology
- ✘ Forces responsible for pressure ulcer
- ✘ Risk assessment scales to assess the grades of pressure ulcers
- ✘ Classification of pressure ulcer
- ✘ 9 steps towards the management of pressure ulcer
- ✘ Case report
- ✘ Case management
- ✘ Result & Conclusion

INTRODUCTION

- Bed sores/pressure sores remain a ***significant healthcare concern***, especially in the elderly and immobile population.
- Older people very often are less mobile, impaired in nutrition and have a poor general condition.
- ***Prevention and treatment*** is obligatory to avoid bed sores that can easily infect and lead to more morbidity.
- ***Curative dressings*** can help wound healing and avoid further problems.

EPIDEMIOLOGY

- ✘ The overall incidence rate of pressure ulcer in inpatient department is reported as low as **0.4%** to as high as **38%**.

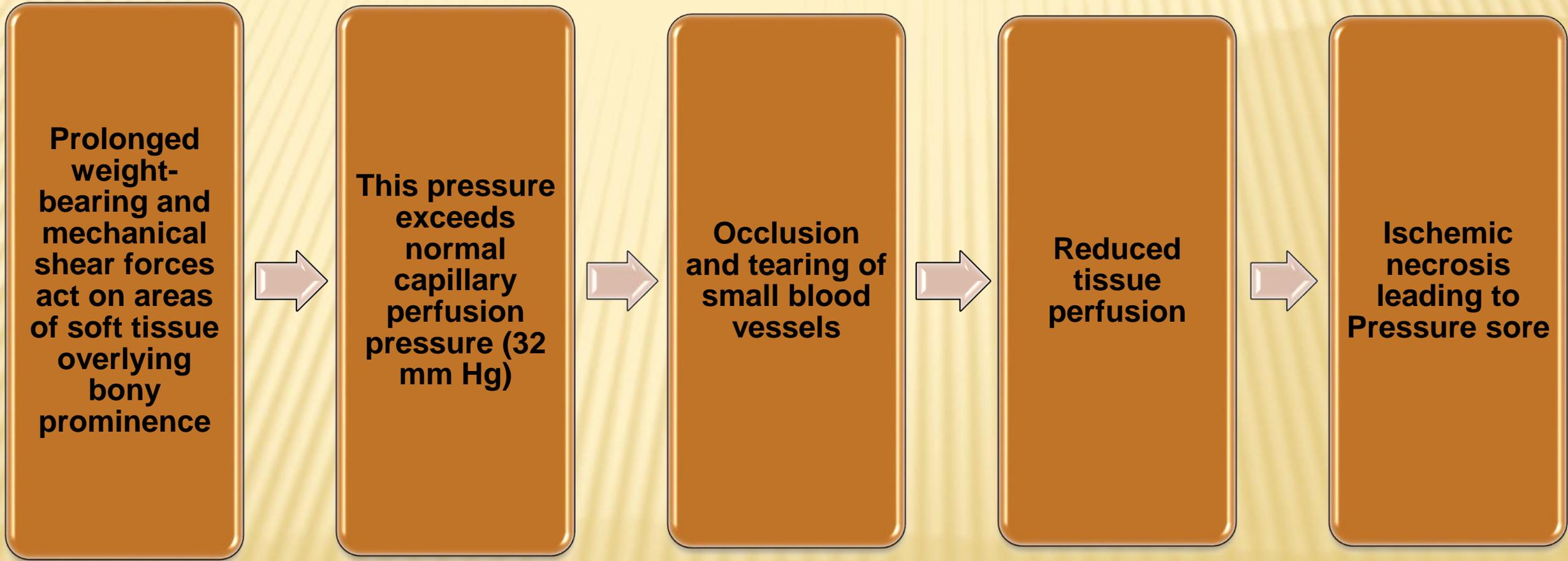
(Cuddigan J.et al.)

- ✘ **In Indian setting**, the prevalence of pressure ulcers in hospitalized patients has been reported to be **4.94%**.

- ✘ Mortality rate amongst elderly patients (NPUAP stage 3 and 4 pressure ulcers) with secondary systemic complications was reported in Japan as **68.8%**.

(Kuwahara et al)

PATHOPHYSIOLOGY



FORCES RESPONSIBLE FOR PRESSURE ULCER

PRESSURE

Force applied to soft tissue between hard surface and bony prominence.

This leads to tissue death by causing deprivation of oxygen and other nutrients at tissue level.

FRICTION

Resistance of one body sliding or rolling over another, making skin more susceptible to pressure sores.

SHEAR

This occurs when skin moves in one direction, and the underlying bone moves in another.

Sliding down in a bed or chair or raising the head of bed more than 30 degrees is especially likely to cause shearing, which stretches and tears cell walls and tiny blood vessels.

STRAIN

Tissue deformation in response to pressure.

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

#1. NORTON SCALE

Norton Subscales

| Scale | | | | |
|---------------------------|--------------------------|---------------------------|------------------------|----------------------------|
| Physical condition | Good 4 | Fair 3 | Poor 2 | Very bad 1 |
| Mental condition | Alert 4 | Apathetic 3 | Confused 2 | Stupor 1 |
| Activity | Ambulant 4 | Walk/help 3 | Chair-bound 2 | Bed 1 |
| Mobility | Full 4 | Slightly limited 3 | Very limited 2 | Immobile 1 |
| Contenance | Not incontinent 4 | Occasional 3 | Usually Urine 2 | Urine & Feces 1 |

Examining Norton Scale

Highest possible score = 20

Lowest possible score = 5

Onset of risk = 16 or below

High risk = 12 or below

#2. BRADEN SCALE

Braden Risk Assessment Scale (abridged version)

| | | | | |
|-----------------------------|------------------------------|------------------------------|------------------------------|---------------------------|
| Sensory Perception | 1 Completely limited | 2 Very limited | 3 Slightly limited | 4 No impairment |
| Moisture | 1 Constantly moist | 2 Very moist | 3 Occasionally moist | 4 No impairment |
| Activity | 1 Bedfast | 2 Chairfast | 3 Walks Occasionally | 4 Walks frequently |
| Mobility | 1 Completely immobile | 2 Very limited | 3 Slightly limited | 4 No limitation |
| Nutrition | 1 Very poor | 2 Probably inadequate | 3 Adequate | 4 Excellent |
| Friction & Shear | 1 Problem | 2 Potential problem | 3 No apparent problem | |

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Examining Braden Scale

Highest possible score = 23

Lowest possible score = 6

Mild risk = 15-18

Moderate risk = 13-14

High risk = 10-12

Very high - < 9

CLASSIFICATION OF PRESSURE ULCER

- ✘ **The definitions of the four pressure ulcer stages are revised periodically by the National Pressure Ulcer Advisor Panel (NPUAP) in the United States and the European Pressure Ulcer Advisor Panel (EPUAP) in Europe.**

Briefly, they are as follows:

CLASSIFICATION OF PRESSURE ULCER

STAGE 1

- ✘ Intact skin with non-blanchable redness of a localized area usually over a bony prominence. Darkly pigmented skin may not have visible blanching; its colour may differ from the surrounding area.

STAGE 2

- ✘ Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough. May also present as an intact or open/ruptured serum-filled blister.

CLASSIFICATION OF PRESSURE ULCER

STAGE 3

- ✘ Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscles are not exposed.
- ✘ Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunneling. The depth of a stage 3 pressure ulcer varies by anatomical location.

STAGE 4

- ✘ Full thickness tissue loss with exposed bone, tendon or muscle. It often includes undermining and tunneling.
- ✘ Stage 4 ulcers can extend into muscle and/or supporting structures (e.g., fascia, tendon or joint capsule), making osteomyelitis likely to occur.

CLASSIFICATION OF PRESSURE ULCER

UNSTAGEABLE

- ✘ Full thickness tissue loss in which actual depth of the ulcer is completely obscured by slough (yellow, tan, gray, green or brown) and/or eschar (tan, brown or black) in the wound bed.

SUSPECTED DEEP TISSUE INJURY

- ✘ A purple or maroon localized area of discolored intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear.
- ✘ The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler as compared to adjacent tissue.

9 STEPS TOWARDS THE MANAGEMENT OF PRESSURE ULCERS

- 1. Changing Positions Often**
- 2. Using Support Surfaces**
- 3. Wound Cleaning**
- 4. Dressings**
- 5. Debridement**
- 6. Removing Damaged Tissue**
- 7. Healthy Diet**
- 8. Educating the Caregiver**
- 9. Controlling Incontinence**

CASE REPORT

- ✘ A, 75 year old, female, K/C/O Parkinson disease & Rheumatoid Arthritis was admitted in private ward of Hakeem Abdul Hameed Centenary Hospital, New Delhi, India on **24th Dec 2016**.

Chief complaints

- Poor intake of food since one month
- Pain in legs and back since one month
- Fatigability since one month
- A large Sore in the buttock

CASE REPORT

× **On examination**

Patient was conscious, oriented, vitals were within normal range with slurring of speech, joint rigidity, tremors were present, stage 3 bed sore (6cm*8cm) was present at buttock and the iliac spine region as she was bed ridden since the last two years.

- Elbow, wrist and knee contractures were present, BMI was 16.8 therefore, she was identified as having severe malnutrition.

CASE REPORT

- ✦ **Client was receiving the following medication**
 - ✦ Tab Pacitane 2mg BD
 - ✦ Tab Nexito 5mg HS
 - ✦ Syp Macavit 2tsf BD
 - ✦ Tab Dolo ½ SOS
 - ✦ Tab Ultracet ½ SOS

CASE REPORT

Diagnostic Tests performed

- × Complete blood count assessment
- × LFT/KFT
- × Chest x ray
- × ECG

Test reports were within normal limits

CASE MANAGEMENT

- × ***Gentle passive Range of Motion exercises:*** Two-hourly positioning was done, comfort devices and an air mattress was provided to the patient by the nurses.
- × ***Deep-breathing exercises:*** Performed with the help of a physiotherapist,

Deep breathing exercises included

- Chest Vibration and percussion
- Pursed lip breathing
- Thoracic expansion
- Incentive spirometry

CASE MANAGEMENT

- **Patient dressing** was done regularly by the nursing staff with Nemicorp bed sore dressing,
- ✘ Wound irrigation was performed with normal saline and hydrogen peroxide regularly on alternate days.

- **Wound mechanical debridement** was done till the wound did not look fresh.

- **Pus culture** was sent at regular intervals, which showed microorganism *Pseudomonas aeruginosa*, which was treated by antibiotic therapy.

CASE MANAGEMENT

- ✘ ***A well-balanced diet, rich in protein*** was provided to the patient as her blood investigation reported hypo-albuminemia (serum albumin 2.8 gm/dl), and protein was also helpful in healing of bed sores.
- Protein powder and egg diet was provided to the client.
- **Controlling incontinence:** Medications and prevent soiling by changing diaper regularly.
- ✘ **Family Education:** There is no family member living in hospital to take care of her and visits seldom only.

RESULT

- ✘ ***Efficient nursing care, daily observation, proper positioning, exercises and the prescribed treatment improved the patient's condition.***
- ✘ ***Healing of bed sore took 4 months.***



Healed Bed Sore

CONCLUSION

The role of nurses is paramount in preventing and managing bed sores. Efficient nursing care, proper assessment and timely interventions prevents development of bed sores and also help the patient to recuperate from them.....

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**Completed 4 years at Hakeem Abdul Hameed Centenary Hospital,
Jamia Hamdard, New Delhi**

A white, hand-drawn style speech bubble sticker is centered on a corkboard background. The text 'Thank you!!' is written in a bold, black, sans-serif font. The word 'Thank' is on the top line, and 'you!!' is on the bottom line, slightly indented to the right. The corkboard has a natural, textured appearance with small, light brown granules.

**Thank
you!!**