The Problem of Pressure Sores

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PRESSURE Sores have plagued man since antiquity as evidenced by their presence on ancient Egyptian mummies. Even with all the advances in medical science, the problem of Pressure Sores continues to baffle the health professionals. The formation of decubitus ulcers is such a common problem that virtually all nurses are aware of it. From the earliest days of professional education, nurses have been taught that good Nursing care can prevent the formation of these ulcers. We take the major responsibility for the prevention and care of the pressure areas and strive to keep the patient's skin in good condition by washing, drying, rubbing, changing positions, preventing pressure and providing nourishment. Even with all these, sores still occur and the decubitus ulcers that do exist present definite problems in planning and providing patient care.

Etiological Factors of Pressure Sore

The slogan, 'Prevention is Better than Cure', is very true in this particular problem. Mary R. Bliss and Rhoda McLaren have stated that "a patient may need special Nursing to prevent sores for only a few days, while he is acutally ill, but once they have been allowed to develop, they may take months or even years of tedious treatment to heal" (6). To achieve prevention, the causative factors must be identified and a definite plan of preventive measures must be developed and implemented.

Protein malnutrition, anaemia, infection, sensory loss, heat moisture, frinction, shearing force, negative nitrogen balance, absence of the usual muscle and fat over bony prominences, oedema, unconsciousness have been mentioned as causes of decubitus ulcer formation.

Increased pressure over a prolonged period of time as an etiologic factor in the development of ischemea over bony prominences has been well documented. It has also been pointed out in the recent study done by Verhonick, P.J. and others. Capillary pressure is approximately 32 mm. Hg., and if microcirculation underlying the vulnerable skin areas is impaired because of excessive pressure, ischemea results. Prolonged excessive pressure exceeding 32 mm. Hg. ultimately leads to development of Pressure Sores (9).

"Prolonged pressure will change the shape of tissues and this is due to water displacement plus the stretching of the fibrous network.

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Thus, the longer the pressure is applied, the more the blood vessels will stretch. Stretching a small blood vessel will open its pores and allow plasma or blood to seep through, especially when pressure has just been relieved from the area. In this way many small blood vessels become obliterated by thrombus formation, and some will simply be torn. If pressure is relieved from this damaged area for sufficient time (about the same time that the area has been under pressure) the body can usually repair the damage, but if 'pressure free' periods are insufficient, or the patient's repair mechanism is faulty, such damage will accumulate under a bony prominence—and the deep pressure sore is born" (8).

Why is it a Problem ?

The statements by various authors in different articles and research reports make it very clear that Pressure Sore is a real problem. The sores are not only painful but they can be the causes of widespread infection.

"Decubitus ulcers are major problems both to the persons afflicted with it and to those trying to help with cure and prevention. More profoundly the course of the ulcers often determines the future of the afflicted person. And, as more people survive catastrophic accidents that leave them severely damaged—especially with paraplegia and quadriplegia—decubitus ulcers can be anticipated to be an even greater problem" (5).

John Vasile and Horace Chaiten in their study have found out that the group of decubiti patients poses tremendous problems in bed occupancy and expensive and prolonged Nursing care and has a mortality rate of over sixty per cent (4).

Average Nursing time per patient increased fifty per cent in patients with Pressure Sores, as compared with equally ill patients without Pressure Sores, and seventy per cent of all patients who developed Pressure Sores while hospitalized did so within two weeks after admission has also been reported (2).

Bed Sores occur in approximately eighty per cent of all patients with spinal cord injuries and in ten to fifteen per cent of all other bedridden patients (2 & 3 & 7). Rosalie Pratt has pointed that "every Pressure Sore incurred, no matter how successfully healed, represents a shortening of the paraplegic's life span" (10).

Brooke O. G., *at al* have suggested that the association of sacral cysts with osteomyelitis of the adjacent sacrum as the result of decubitus ulceration

may have facilitated entry of infection of the subarachnoid space to cause recurrent episodes of meningitis (7)

"Economically, it has been estimated that each decubitus ulcer increases the cost of medical care for the unfortunate individual in whom it occurs by US $ 5,000" (1)

"It is also estimated that the average cost of treating a decubitus ulcer is $ 5,000, often costs reach three to four times that amount"(5). "The average cost of a single Pressure Sore in terms of prolonged hospitalization, medical and Nursing care has been estimated at $ 2,000 to $ 10,000 in addition to the inevitable suffering and discomfort to the patient and his family" (2 & 3).

For these reasons, it is obvious that Pressure Sores are real problems and it is important to focus attention on factors that are responsible for the occurrence of Pressure Sores and prevent them.

Alleviation of high pressure acting on areas of skin over a prolonged period of time is essential to prevent the formation of decubitus ulcers. If high pressure applied to the skin cannot be eliminated, then periodic changes of the location of these high pressure areas must take place to avoid skin breakdown.

Bibliography

1. Antony F. Merlino, "Decubitus Ulcers, Cause, Prevention, and Treatment, "*Geriatrics*" (March, 1969), 119-124.

2. Dayina J. Gosnell, "An Assessment Tool to Identity Pressure Sores". *Nursing Research*, 22 (January-February, 1973), 55-59

3. Joan Grabenstetier, "Sythetic Fat Helps Prevent Pressure Sores". *American Journal of Nursing*, 68 (July, 1968) 1521-1522.

4. John Vasile, and Horace Chaiten, "Prognostic Factors in Decubitus Ulcers of the Aged", *Geriatrics*, (April, 1972), 126-129.

5. Marjorie Praudler, "Flotation, Displacement, and Decubitus Ulcers", *American Journal of Nursing*, 68 (November, 1968), 2351-2355.

6. Mary R. Bliss, and Rohoda Mclcaren, "Preventing Pressure Sores in Geriatric Patients". *Nursing Mirror*, (February 10, 1967), 434-437, & 444.

7. O. G. Brooks. *et al*, "Recurrent Meningitis", *British Medical Journal*, (October 24, 1970), 218-219.

8. Peter T. Lowthian, "Bedsores—The Missing Links" *Nursing Times*, (November 12, 1970), 1454-1458.

9. Phyllis J. Verhonick, "A Preliminary Report of a Study of Decubitus Ulcer Care", *American Journal of Nursing*, 61 (August 1961), 68-69.

ELOCUTION CONTEST

at Hyderabad

The Elocution or extempore speech making contest would be conducted during the TNAI Conference to be held at Hyderabad during October 9-11, 1985. Each participant would be given a topic 15 minutes prior to the speech making. The speech would be of 3 minutes' duration only. Usually the topic is somewhat related to the main theme of the Conference. There would be four awards.

Those who wish to take part are requested to complete the Elocution Registration Form. This form should be sent to the TNAI Headquarters along with the Registration Fee of Rs. 3. The money should be sent in the form of Postal Orders made payable to the Secretary, TNAI, L-17, Green Park, New Delhi-110016. The last date for registration for the contest is September 15, 1985.

Elocution Registration Form

Name of the Participant (In Block letters) : .....

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Whether Member of T.N.A.I.

TNAI No.

Designation :

Address :

Date :

Signature of the Participant