

GERIATRIC NURSING CARE FOR ELDERLY PATIENTS WITH DECUBITUS ULCERS AT DAIWAKAI NURSING HOME, ISHIKAWA, JAPAN

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ABSTRACT

Decubitus ulcers are injuries or death of skin tissue extending to the underlying tissues and even to the bone. Decubitus occurs due to continuous pressure on a specific area, leading to impaired blood circulation. Elderly individuals experience decreased activity, which increases the risk of developing decubitus ulcers. This decrease in activity can occur due to the aging process and weakness in muscles and nerves. The objective of this case study is to understand the description of nursing care for elderly patients experiencing decubitus ulcers and to prevent and reduce the incidence of decubitus ulcers through right and left lateral positioning every 2 hours. This type of research is descriptive, using a case study approach. The subject of this case study is a single patient (Mr. S) with decubitus ulcers resulting from impaired skin/tissue integrity, located on the third floor of Daiwakai Nursing Home in Ishikawa, Japan. The results of the study indicate the nursing diagnoses that emerged, which are: acute pain related to physical injury agents, impaired skin integrity related to mechanical factors, risk of infection evidenced by inadequate primary body defenses, and impaired physical mobility related to pain. The results of nursing care show that all emerging nursing diagnoses were addressed. The implementation of right and left lateral positioning every 2 hours for 3 consecutive days resulted in improved decubitus ulcer wounds and enhanced blood flow quality in the skin. The intervention of right and left lateral positioning every 2 hours, with the use of cushions as support, proved effective in reducing the incidence of worsening decubitus ulcers.

Keywords: decubitus; elderly; right and left lateral positioning

INTRODUCTION

Elderly individuals experience a decrease in skin elasticity and vascular system function, as well as a decline in physical mobility or activity. One of the issues that arise is decubitus ulcers or pressure sores. Decubitus ulcers are damage or death of skin tissue down to the underlying tissue and can even penetrate muscle to affect bone due to continuous pressure on a specific area, resulting in impaired blood circulation in the local area. Decubitus ulcers pose a serious problem as they lead to increased costs and slow down care and rehabilitation programs for patients. Additionally, decubitus ulcers cause prolonged pain and discomfort (Rokhman et al., 2020). This issue is influenced by several factors, including: 1) lack of knowledge; 2) skills and negative attitudes towards pressure ulcer prevention significantly contribute to the occurrence or worsening of pressure ulcers in patients; 3) particularly in patients at risk of skin integrity damage, such as the elderly; 4) incontinence; and 5) inability to change body position and lack of awareness of the need for position changes (Khojastehfar et al., 2020).

With the increase in life expectancy, the population aged 60 and above, known as the elderly, is on the rise. The World Health Organization (WHO) estimates that the number of elderly people worldwide will double from 12% to 22% by 2050 (WHO, 2022). The percentage of the elderly population aged ≥ 65 in Japan has been increasing each year, from 28.1% in 2019 to 29.8% in 2021 (Paschaline et al., 2023). According to the WHO, the global prevalence of decubitus ulcers is recorded at 21%, or approximately 8.50 million cases. Data from the Indonesian Ministry of Health indicates that the incidence of decubitus ulcers in Indonesia reaches 33.3%. In comparison, the incidence of decubitus ulcers in Southeast Asia ranges from 2.1% to 31.3%, indicating that the prevalence of decubitus ulcers in Indonesia is still quite high (Kemenkes RI, 2023). The high incidence of decubitus ulcers requires special attention, and one of

the efforts that can be made to reduce decubitus is through mobilization or position changes (Arista Laraswati et al., 2021).

The negative impact of prolonged bed rest on physical health includes damage to skin integrity, which can lead to decubitus ulcers, also known as pressure ulcers (Badrujamaludin et al., 2022). The occurrence of pressure ulcers is a result of poor quality nursing care, as it is widely recognized that the use of pressure ulcer prevention guidelines by healthcare providers is often suboptimal. Prolonged bed rest leads to impaired blood circulation in the parts of the body that are under pressure. The nursing process includes five steps: assessment, diagnosis, planning, implementation, and evaluation. This means that professional nurses will assess the needs and problems or disturbances of the patient. The nursing diagnoses that may arise include acute pain related to physical injury agents, impaired skin integrity related to mechanical factors, risk of infection evidenced by inadequate primary defense, and impaired physical mobility related to pain. The priority diagnosis in cases of elderly patients with decubitus ulcers is impaired skin/tissue integrity.

Positioning management can be performed by changing the position to the right and left side every 2 hours for approximately 15 minutes. Providing right and left side positioning has the potential to reduce pressure and friction on the skin, thereby preventing the occurrence of decubitus (Setiawan, Susyanti, & Pratama, 2023). Additionally, the patient's body can only be tilted to a 30-degree position each time, and this does not need to be done constantly. Thus, this can assist patients with decubitus in their care (Aryani, Widiyono, and Putra 2022). According to Prantika et al. (2022), it is argued that in the intervention group, after being repositioned, the risk of decubitus occurrence in bedrest patients can be reduced. Bedrest is defined as staying in bed for an extended period and is required to rest. Repositioning is done by tilting the patient from supine to lateral or vice versa and should be performed as early as possible and continuously. Currently, a positioning technique known as the 30-degree lateral position has been developed. One of the elderly patients experiencing decubitus ulcers is at the Daiwakai Nursing Home in Ishikawa, Japan. Therefore, the researcher is interested in conducting "Geriatric Nursing Care for Elderly Patients with Decubitus Ulcers at Daiwakai Nursing Home, Ishikawa, Japan."

METHOD

This research is descriptive in nature, using a case study approach. The subject of this case study is one patient (Mr. S) with a decubitus ulcer caused by impaired skin/tissue integrity, located on the third floor of the Daiwakai Nursing Home in Ishikawa, Japan. In writing this case study, the author carried out nursing care for Mr. S with permission from the supervisor over a period of three days. Right and left lateral positioning therapy every 2 hours was implemented from October 21, 2024, to October 23, 2024. The data collection techniques included primary data obtained directly through observation and interviews (anamnesis), as well as secondary data from medical records, nursing notes, or other documents supporting the research. The data presentation includes nursing care (assessment, diagnosis, nursing plan, implementation, and evaluation)

RESULT AND DISCUSSION

This case study involved one patient who was treated on the 3rd floor of the Daiwakai Nursing Home in Okinawa City, Ishikawa, Japan, over a period of 3 days for outcome evaluation. The patient, Mr. S, is 86 years old and has a medical diagnosis of decubitus ulcer. Mr. S experienced a nursing problem of impaired skin/tissue integrity due to the decubitus ulcer. Assessment was carried out on October 21, 2024, with the main complaint being pain and redness in the right heel area and at the bony prominence of the buttocks (sacral area).

The results of the study indicated the following nursing diagnoses: acute pain related to physical injury agents, impaired skin integrity related to mechanical factors, risk of infection evidenced by inadequate primary defense, and impaired physical mobility related to pain. To prevent worsening of the decubitus ulcer in the elderly patient, the author provided right and left lateral positioning therapy every 2 hours with the goal of avoiding prolonged bed rest and preventing skin integrity damage by improving circulation and tissue perfusion in the patient. The nursing care carried out to improve tissue perfusion (microcirculation), which can prevent the occurrence of pressure ulcers due to impaired skin/tissue integrity in patients with decubitus ulcers, included: assessment, data analysis, nursing diagnoses, nursing care planning, and nursing implementation. This case study on geriatric nursing care in the elderly discusses several nursing diagnoses along with the nursing interventions carried out for Mr. S, who has a decubitus ulcer at the Daiwakai Nursing Home in Ishikawa, Japan. The activities performed included assessment, nursing diagnoses, nursing interventions, nursing implementation, and nursing evaluation.

Assessment

Nursing assessment is an act of reviewing the human condition to obtain data about the client with the aim of identifying the disease situation (Novera, 2021). A comprehensive assessment of the elderly patient with a decubitus ulcer was carried out on Mr. S on October 21, 2024, which revealed the following data: (a) Impaired skin/tissue integrity: Redness in the right heel area and on the bony prominence of the buttocks (sacral area), a superficial wound limited to the epidermis and dermis, not yet penetrating the subcutaneous tissue, with an approximate depth of 1 cm and moderate wound size with a diameter of about 3 cm, clearly defined wound edges, and decreased appetite. (b) Acute pain: Facial grimacing, restlessness, pain scale of 5 (moderate), and difficulty sleeping. (c) Risk of infection: Redness of the wound, warm sensation around the wound area, and decreased appetite. (d) Impaired physical mobility: Physically weak, pain during movement, limited ability to perform daily activities, requiring assistance from nursing staff for daily functioning.

Nursing Diagnoses

The nursing problems experienced by the patient indicate the following nursing diagnoses: acute pain related to physical injury agents, impaired skin integrity related to mechanical factors, risk of infection evidenced by inadequate primary defense, and impaired physical mobility related to pain. The priority nursing diagnosis according to Mr. S's case is impaired skin/tissue integrity related to mechanical factors (pressure on bony prominences, friction), evidenced by tissue damage and/or skin layer damage, pain, and redness (D.0129). Based on the Indonesian Nursing Diagnosis Classification (SDKI), the major signs and symptoms are tissue damage and/or skin layer damage, while the minor signs and symptoms include pain and redness.

This case is consistent with previous research by Novitasari (2020), which demonstrated that repositioning has an effect on the prevention of decubitus occurrence ($0.001 < \alpha = 0.05$). Decubitus, commonly referred to as pressure ulcers, occurs in areas of skin that cover prominent bones and is influenced by several factors, including immobilization in bed, friction, inadequate position changes, and resulting in paraplegia or decreased sensory function of body movement over an extended period.

Nursing Intervention

The planning or interventions designed by the author to address the case issues consist of observational actions, therapeutic actions, education, and collaboration tailored to the patient's condition. The nursing interventions are arranged based on SIKI (Standar Intervensi Keperawatan Indonesia – Indonesian Nursing Intervention Standards) for each nursing diagnosis related to pressure ulcers, focusing on changing the patient's position to the right and left sides every 2 hours for wound decompression using supporting pillows.

The nursing care interventions carried out by the researcher to address the problem include conducting daily assessments by checking vital signs and monitoring the patient's condition. Non-pharmacological techniques are provided by changing the patient's position every 2 hours if on bed rest, to decompress (reduce pressure on the wound area) using pillows as support. The application of Actosin ointment is recommended 2–3 times per day to treat pressure ulcers and prevent or manage bacterial infections in the wound. Additionally, the following nutritional improvements are advised: (a) Regular meals of 2200 kcal, including supplementary foods, as well as 1400 kcal meals with additional supplements. (b) 800 kcal meals consisting of: Staple food: Achibii, Side dish: A large sip of diluting liquid (type may vary), spicy peas. (c) Romiusume as a supplemental food served with every meal. (d) Free foods are provided at every meal (depending on the situation), such as bread, pudding, juice, and fruits. Collaboration with other healthcare professionals is essential for the patient's recovery (e.g., activity therapists, exercise physiologists, occupational therapists, recreational therapists, physical therapists) in planning, teaching, and monitoring the therapy program. In the study by Krisnawati, Dewi et al. (2022), the results showed that regular repositioning every 2 hours was highly effective in preventing the incidence of pressure ulcers compared to cases where repositioning was not implemented. Thus, the effectiveness of applying right and left side-lying positions every 2 hours can significantly influence the occurrence of pressure ulcers.

Nursing Implementation

The nursing problem of impaired skin/tissue integrity in pressure ulcers can be minimized through various therapies and proper wound care. Nursing implementation has been carried out by routinely applying position changes to the right and left sides every 2 hours, topical wound care therapy, adequate nutrition, and facilitating non-pharmacological therapies to reduce pain from pressure wounds. These efforts help increase patient comfort and accelerate the healing process. One of the most effective therapies for addressing pressure ulcers is the implementation of right and left side-lying positions every 2 hours using pillows as support. This side-lying repositioning therapy is performed for three consecutive days, in line with rehabilitation practices at the Daiwakai Nursing Home in Ishikawa, Japan. The study by Sartika, L. D., Kusumastuti, A., Sartika, R., Susanto, A. D., & Idu, C. J. (2023) stated that nursing implementation for the risk of impaired skin/tissue integrity includes providing right and left side-lying positions as one of the key interventions.

Nursing Evaluation

Evaluation is a nursing action that represents the final outcome related to the success of the nursing interventions carried out on the patient. In this case, the author uses the assessment of the pressure ulcer wound, emphasizing the therapy of changing the right and left side-lying positions. Nursing evaluation in this case study is conducted in two types: formative evaluation, which is the immediate response after performing the intervention, and summative evaluation, which is the progress evaluation done after the intervention by comparing the patient's response to the predetermined goals using the SOAP method: S (Subjective), O (Objective), A (Analysis), P (Planning). The following are the evaluation results on the third day in an elderly patient with a pressure ulcer: (a) Acute pain related to physical injury agents, problem resolve. (b) Impaired skin integrity related to mechanical factors, problem resolved (c) Risk of infection evidenced by inadequate primary body defenses, problem resolved (d) Impaired physical mobility related to pain, problem resolved

Maintain intervention: Continue the implementation of changing the right and left side-lying positions every 2 hours to prevent the recurrence of pressure ulcers, which will be consistently carried out by the therapy staff at Daiwakai Nursing Home, Ishikawa, Japan. The study by Kusumah & Hasibuan (2021)

showed that position changes influence the incidence of pressure ulcers in patients in the care unit at Aminah Hospital, Ciledug Tangerang. According to the research by Lina Dwi Ariyani, L. I. N. A. (2023), repositioning (turning) in bedrest patients affects the occurrence of pressure ulcers. Applying repositioning every 2 hours can reduce moisture and friction, aiming to reduce pressure that may cause pressure ulcers. Herly's (2021) study also demonstrated that repositioning every 2 hours by tilting was effective in reducing the risk of pressure ulcers, proven by an increase in the Norton scale score.

CONCLUSION

A comprehensive assessment of an elderly patient with pressure ulcers was conducted on Mr. S, which revealed impaired skin/tissue integrity: redness on the right heel and bony prominence on the sacral area, with a shallow wound extending only to the epidermis and dermis, not yet reaching the subcutaneous tissue. The wound was approximately 1 cm deep and moderate in size with a diameter of about 3 cm, with well-defined edges, along with decreased appetite. Acute pain: visible grimacing, restlessness, pain scale 5 (moderate), difficulty sleeping. Risk of infection: redness around the wound, warmth to the touch, decreased appetite. Impaired physical mobility: physical weakness, pain with movement, and limited mobility. The nursing diagnoses identified for the patient with pressure ulcers include: acute pain related to physical injury agents, impaired skin integrity related to mechanical factors, risk of infection evidenced by inadequate primary body defenses, impaired physical mobility related to pain. Nursing interventions were developed based on SIKI (Indonesian Nursing Intervention Standards) for each nursing diagnosis related to pressure ulcers, with a focus on changing the patient's position to the right and left sides every 2 hours for decompression (reducing pressure on the wound area) using supporting pillows. Nursing implementation has been carried out by routinely applying right and left side-lying position changes every 2 hours, topical wound care therapy, adequate nutritional intake, and providing non-pharmacological therapy to reduce pain from pressure ulcers, thereby increasing patient comfort and accelerating the healing process. The nursing evaluation showed that all nursing diagnoses : acute pain related to physical injury agents, impaired skin integrity related to mechanical factors, risk of infection evidenced by inadequate primary body defenses, and impaired physical mobility related to pain, were resolved. The intervention of routine position changes will be maintained by therapy staff at Daiwakai Nursing Home in Ishikawa, Japan, to prevent the recurrence of pressure ulcers.

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