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Nursing Care with A Medical Diagnosis of Non-hemorrhagic Stroke in High Care Unit of Banjarnegara Islamic Hospital: A Case Study

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ABSTRACT

Objective: The purpose of this study was to determine the development of non-hemorrhagic stroke patients by maximizing the implementation of ROM during treatment.
Method: The method used is descriptive method with a case study approach in non-haemorrhagic stroke patients with decreased consciousness. The case study process was carried out by finding patient data and classified according to continued inclusion criteria. interviews (to the family) and secondary data collection from medical records, observation of the patient's condition and periodic physical examinations. After obtaining the data, further documentation of the nursing process is carried out from assessment, data analysis, nursing problems, nursing interventions, nursing implementation and evaluation.
Result: Nursing problems that arise include: risk of ineffective cerebral perfusion related to hypertension, ineffective airway clearance related to retained secretions and impaired physical mobility associated with decreased muscle strength, Three nursing problems have not been resolved because stroke is a brain tissue damage that is characterized by irreversible (cannot be returned) and it takes a long time for the recovery process.
Conclusion: Stroke management by practicing ROM can be effectively carried out in patients who are conscious as a form of recovery. Three nursing problems have not been resolved because stroke is irreversible damage to brain tissue and takes a long time to recover. The stroke management process is not easy, but the patient's condition in this study can be an appeal to further improve the quality of care.

Keywords: case study, nursing care, stroke

Introduction

Stroke is a neurological disease or syndrome characterized by rapidly developing functional disorders due to brain disorders (Widianti et al., 2021). Stroke is a primary neurological problem in the world. Acute stroke can cause physical, mental disability and even a sudden high rate of death, both at productive age and old age (Andriani et al., 2022). It is estimated that one in three people will have a stroke and one in seven will die from a stroke. Stroke will be a burden for the sufferer himself and his family. This will be an inhibiting factor for development (Ghani, Mihardja, & Sumber Daya dan Pelayanan Kesehatan Jl Percetakan, 2016)

According to WHO in 2016, 15 million people worldwide suffer a stroke each year. Of that number, 5 million people die and another 5 million will experience permanent disability. In Indonesia, the results of the 2013 Basic Health Research (Riset Kesehatan Dasar, 2013) found that the prevalence of stroke patients based on the prevalence of stroke patients based on the diagnosis of health workers was 7 per mile and those diagnosed by health workers or symptoms were 12.1 per mile. the highest is in North Suloawei up to 10.8%. Meanwhile, in the province of Papua, the lowest position was 2.3%.

Post-stroke sensory and motor disturbances cause balance disorders including muscle weakness, motor control disorders which can cause permanent physical disability. Physical disabilities can make a person less productive (Ganong, 2012). If not anticipated, the physical weakness that occurs causes dependence in carrying out daily activities, for example hand disorders such as weakness that occurs in non-hemorrhagic post-stroke patients can interfere with meeting daily needs (disability) such as eating, dressing, picking up objects, using the bathroom. dll, so it will limit and block the role normally (Costa et al., 2010).

The nurse's role here is to anticipate the things mentioned above, and as early as possible to train patients to be able to do gradual mobilization, as well as involve and train families to assist patients in fulfilling ADL, especially when the patient is home (Faadilah et al., 2021; Rahayu et al., 2021).

Objective

The purpose of this study was to describe the experience of directly observing and caring for patients with non-hemorrhagic stroke at the Banjarnegara Islamic Hospital by providing ROM exercise interventions.

Method

The method used in this scientific paper is a descriptive method with a case study approach in non-haemorrhagic stroke patients who experience decreased consciousness (Setiadi, 2013). The case study process was carried out by finding data on non-hemorrhagic stroke patients and selecting respondents based on the inclusion criteria desired by the author. After finding the case study respondents, the authors conducted interviews (to the family), medical record data, observations, physical examinations to carry out the nursing care process starting from the assessment process to evaluation. The author uses an assessment format instrument, sphygnomanometer, thermometer, and stethoscope to assist in the data collection process (Sherina, Ramdan, & Hidayat, 2022).

The process of data analysis is carried out by the author by grouping some of the data that has been obtained from the results of the assessment and physical examination. The results of the data grouping will be analyzed based on subjective and objective data so that a nursing

diagnosis can be established. The author will develop a nursing plan, carry out implementation, to carry out an evaluation (Potter Patricia A, 2005).

Results

Case Presentation

The assessment process was carried out on March 17, 2022 in the HCU room of the Banjarnegara Islamic Hospital on the patient with the initials Mrs. S. which was carried out by observing the patient's condition, then secondary data from medical records and interviews with Mr. M who was 53 years old as the patient's child. The patient came with decreased consciousness with GCS E1M2V, after being observed the patient was transferred to the HCU room. The family said that in the morning the patient was sitting at the back of the house chatting, suddenly the patient leaned back against the side of the chair with his hands as a support. When checked the patient was unconscious, then transferred to the bed, but when he was lifted the patient felt stiff and snored. In addition, the family also said that the patient had a history of controlled hypertension by participating in posbindu activities in the village where he lived and used to take the drug amlodipine 10 mg every day.

The assessment was carried out in the HCU room on March 17, 2022 at 15.00 by focusing on the examination of B1 (Breathing) breathing, B2 (Blood) Cardiovascular, B3 (Brain) innervation, B4 (Bledder) urinary B5 (Bowl) digestion B6 (Bone) musculoskeletal. Based on the results of the study in this case, the focus was on musculoskeletal function, namely very low muscle strength. The data obtained that the ratio of the muscle strength of the right and left extremities is 1:0. Through examination of muscle strength, it can be ascertained that the patient requires Range of Motion (ROM) management to increase muscle strength. In addition to non-pharmacological therapy, the patient also received pharmacological therapy such as piracetam 500 mg, citicolin 500 mg, omeprazole 40 mg, mannitol 250cc, ceftriaxone 1gr, sanmol 500 mg.

Based on the results of the implementation of ROM in patients for two days of treatment, it was obtained that the patient's muscle strength did not change and even tended to decrease. The comparison of the muscle strength of the right and left extremities is 0:0 and the upper extremity compared to the bottom is 0:0 or there is no movement at all. In addition to passive ROM, patients are also monitored vital signs, level of consciousness, maintain a 30-degree head elevation position and reduce movement, monitor breathing patterns and sounds, perform periodic suction and provide oxygenation at 8 liters/minute. After that, an evaluation of the provision of nursing care was carried out by looking at the patient's development where the condition tended to decrease without any change in muscle strength and died on the third day of treatment.

Discussion

Stroke is a neurological disease or syndrome characterized by rapidly developing functional disorders due to brain disorders. Stroke is a primary neurological problem in the world. An acute stroke can cause physical and mental disability and even a sudden high death rate, both in productive age and in old age. Based on previous research, it is estimated that one in three people will have a stroke and one in seven people will die from a stroke (Adha 2017). Stroke is divided into two, namely hemorrhagic stroke and non-hemorrhagic stroke. Non-hemorrhagic ischemic stroke occurs due to obstruction or a clot (thrombus) that forms in a brain vessel or distal organ vessel (Anderson and Wilson 2006).

Based on observations of cases of stroke in patients occurring suddenly and for the first time, however, patients have had hypertension for a long time. This is in accordance with previous research which states that hypertension is one of the factors causing ischemic stroke (Muttaqin 2011). The case that the patient had a history of controlled hypertension by routinely taking the antihypertensive drug amlodipine 10 mg every day and regularly participating in control activities in the village.

Patients with stroke require proper treatment, medically the patient has received therapy with piracetam 500 mg, citicolin 500 mg, omeprazole 40 mg, mannitol 250cc, ceftriaxone 1gr, sanmol 500 mg. The patient's condition Mrs. S who has decreased consciousness requires many other interventions according to the problems that arise, including decreased intracranial adaptive capacity, ineffective airway clearance and impaired physical mobility (DPP PPNI Pokja SDKI Team 2016) Based on Indonesian nursing intervention standards, stroke management is by doing ROM exercises (Range of Motion) to increase muscle strength (Pokja SIKI DPP PPNI 2018 Team; SLKI Pokja Team DPP PPNI 2019). Other interventions provided include monitoring vital signs, monitoring respiratory status and additional breath sounds and oxygenation management (Pokja SIKI DPP PPNI 2018 Team). The provision of oxygenation has been carried out by providing oxygen assistance of 8 liters/minutes through NRM.

In addition to giving the patient oxygen, the head position is also maximized with an elevation position of 30 degrees. This is in accordance with previous studies which stated that positioning the head elevation can help maximize oxygenation in patients. The head-up position of 30 degrees can reduce intracranial pressure so that it can increase oxygen to the brain and increase blood flow to the brain (Kusuma and Anggraeni 2019; Pertami, Munawaroh, and Dwi Rosmala 2019). However, in the condition of the patient, Mrs. S could not walk optimally due to the condition that continued to decline. This is related to stroke that interferes with the neuromuscular which causes nerves and muscles to not work properly, so that one of the impacts is that the patient continues to experience decreased consciousness (Sari et al 2015). Therefore, disorders that occur in nerves and muscles can also be treated by giving patients passive ROM exercises to reduce muscle stiffness.

Based on previous research, it was shown that ROM exercises can increase muscle strength and reduce joint stiffness in patients (Anggriani et al. 2018). However, in the patient's case, the implementation of ROM is not effective due to other conditions that make it impossible to maximize its implementation. This is appropriate due to several things such as the patient's level of consciousness that continues to decline and unstable hemodynamic status. So that the implementation of ROM in patients cannot provide the maximum effect to increase muscle strength and joint flexibility (Sarah et al., 2007).

Conditions that continue to decline also require regular monitoring, namely by looking at the patient's vital signs through the bed site monitor. Periodic observations can increase patient alertness and increase the nurse's response time to the patient's condition. These rights are exercised and well documented by nurses. However, after the treatment was carried out for two days, the patient's condition continued to decline. Medical therapy is also given optimally but has not been able to overcome the patient's condition. On the third day of treatment the patient continued to experience worsening condition and was declared dead.

Stroke management by practicing ROM can be effectively carried out in patients who are conscious as a form of recovery (Syikir, 2015). On the other hand, it cannot be given maximally if the patient's condition is not fully conscious, whose function is only to reduce stiffness and

prevent pressure sores. So that the main function to improve and increase the resistance of normal joint motion cannot be maximally implemented (Murtaqib, 2016). Three nursing problems have not been resolved because stroke is irreversible damage to brain tissue and takes a long time to recover (Axanditya & Kustiowati, 2014; Batticaca, 2011).

Conclusion

Stroke management by practicing ROM can be effectively carried out in patients who are conscious as a form of recovery. Three nursing problems have not been resolved because stroke is irreversible damage to brain tissue and takes a long time to recover. The stroke management process is not easy, but the patient's condition in this study can be an appeal to further improve the quality of care.

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