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NURSING CARE OF CONTINUOUS URINARY INCONTINENCE IN THE ELDERLY POST-ISCHEMIC STROKE : A CASE REPORT

Case Study

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ABSTRACT

Introduction *: Continuous urinary incontinence is the continued and uncontrolled passing of urine without distension and a feeling of fullness in the bladder due to neurological dysfunction. This condition is often found in the elderly post-ischemic stroke. The study aimed to describe nursing care of continuous urinary incontinence in the elderly post-ischemic stroke in Lamongan.* ***Methods*** *: This study used a case study approach (case report) on a participant through the nursing process approach. The sample in this study is one patient, an elderly post-ischemic stroke. This research was conducted in 2021 in Lamongan with three visits to patients' homes for seven days. Data collection techniques include interviews, observation, and physical examination. This research instrument uses the gerontic nursing care format and sandvik severity index.* ***Results*** *: Continuous urinary incontinence nursing care with the main intervention for urinary incontinence treatment (I.04163) and the supporting intervention is pelvic muscle exercises (I.07215) can be applied to elderly post-ischemic stroke according to the expected outcomes. The continuous urinary incontinence has a partially resolved on the third home visit. The client can hold urine several times when the bladder feels full, reduced the frequency of night urination, and rarely wakes up because of wet diapers. Sandvik Severity Index shows a value of 4 (moderate incontinence).* ***Conclusions****: Improving nursing care need for collaboration between patients, families, and health workers in performing pelvic muscle exercises independently, continuously, and regularly to increase the strength of the detrusor-sphincter muscles and showed improvement in urinary continence.*

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INTRODUCTION

Urinary incontinence, lower urinary tract symptoms, and fecal incontinence are common in older adults, the prevalence increasing with age. Most epidemiological studies have reported that the prevalence of urinary incontinence in women is 25-45 and in men is 5-35% (Shaw & Wagg, 2021). Urinary incontinence is a common problem among the elderly, estimated to affect about 11-21% of the elderly in the community and 77% of the elderly in nursing homes. Although urinary incontinence is a common problem among the elderly, it cannot be considered the same as the normal aging process. Urinary incontinence in the elderly is often caused by lower bladder disorders and factors not related to the urinary tract (LIM, 2017).

Urinary incontinence is one of the complications that often occur in post-ischemic stroke clients because if there is a brain lesion that occurs above the pontine micturition center, especially with bilateral lesions during a stroke, it will result in the occurrence of a spastic neurogenic bladder cause urinary incontinence. On admission to the hospital, stroke clients had urinary incontinence prevalence ranging from 40-60%, when leaving the hospital around 25%, and 37.7% remained incontinent one year after stroke onset (Li et al., 2021).

World Stroke Organization (2019) shows that every year there are 13.7 million new cases of stroke and about 5.5 million deaths occur due to stroke. Based on the results of the 2018 Basic Health Research

based on a doctor's diagnosis, the population of the 65-74 year age group had a stroke prevalence of 45.3‰ and the 75+ year age group had a stroke prevalence of 50.2. East Java is the 8th province with the highest prevalence of stroke, which is 12.4‰ in 2018 (Kementerian Kesehatan Republik Indonesia, 2018).

Urinary incontinence is one of the clinical manifestations of the spastic neurogenic bladder which usually has the same cause as stroke, namely deficiency that occurs in the brain and spinal cord, especially above the T12 level. This causes involuntary bladder contractions followed by loss of coordination due to the dyssynergia energy of the detrusor sphincter. These contractions activate urine production, even though the volume of urine is still small (Wulandari & Sudira, 2016). Continuous urinary incontinence is common post-stroke. This can be caused by neurological dysfunction and results in impaired detrusor contraction reflex with symptoms that often appear, namely the patient is urinating involuntarily and nocturia more than 2 times during sleep (Li *et al*., 2021).

Urinary incontinence has a negative effect on sleep quality, daily life, physical comfort, and social life. Seeing this, the researcher wants to present a case study (case report) to find out nursing care for urinary incontinence continues in the elderly with post-ischemic stroke.

MATERIALS AND METHODS

This study uses a case study approach (case reports) on participants through the nursing process approach. The sample in this study is one patient, an elderly post-ischemic stroke. The research was conducted in Bogobabadan Village, Karangbinangun District, Lamongan Regency in 2021. This research was conducted three times home visits for seven days. Data collection techniques include interviews, observation, and physical examination. The research instrument uses the gerontic nursing care format and the Sandvik severity index. The Sandvik severity scale is an incontinence measurement tool consisting of two questions. The first question is about when the patient experiences urinary incontinence, second question is about how much urine comes out when incontinence occurs. The scores are added up, a score of 0 means that the patient does not experience urinary incontinence, a score of 1-2 patients has mild incontinence, a score of 3-5 moderate incontinence, and 6-8 severe incontinence. In conducting this study, the researcher was guided by ethical principles by giving informed consent and maintaining the confidentiality of patient data.

RESULTS

The case study conducted showed that the elderly post-ischemic stroke experienced persistent urinary incontinence. In this case, the client was 70 years old and had a history of hypertension. The client complains that he does not feel like urinating but continues to urinate every day with a lot of urine output, during the day and night he often feels wet in his diaper. Urinary incontinence increases with age. Aging results in changes in the lower urinary tract that cause urinary incontinence in the elderly. With age, bladder capacity and contractility decrease, with a diminished ability to delay urination once the urge arises. Post-void residual urine volume increases with age (LIM, 2017).

Changes associated with aging and cerebrovascular ischemia have been shown to correlate with impaired physical mobility and urinary incontinence and its severity. Urinary incontinence is a condition consisting of storage, voiding, and post-voiding symptoms that often occur in older adults, the prevalence of which increases with age (Shaw & Wagg, 2021). The risk factors for urinary incontinence in the elderly include transient ischemic attacks and strokes (Tsui et al., 2018) and the prevalence of urinary incontinence ranges from 40-60% in stroke patients on admission, 25% on discharge, and 37.7% permanent. bedwetting one year after stroke onset (Li et al., 2021).

The results of the assessment using the Sandvik severity index show the number 8. Sandvik *et al.* (1993) dan Ernawati (2016) stated that the Sandvik severity index was used to measure urinary incontinence. The Sandvik severity index is an incontinence measurement tool that contains two questions. The first question is about when the patient experiences urinary incontinence, the second question is how much urine comes out when incontinence occurs. Then the scores are added up, a score of 0 means the patient does not have urinary incontinence, a score of 1-2 patients has mild incontinence, a score of 3-5 moderate incontinence, and 6-8 severe incontinence.

The nursing diagnosis in this study was continuos urinary incontinence (D.0042) associated with neurological dysfunction characterized by not feeling the urge to urinate but continuing to urinate every day with a lot of urine output, during the day and at night often feeling wet in diapers. Continuous urinary incontinence is an uncontrolled and continuous urine output without a feeling of fullness in the

bladder(Tim Pokja SDKI DPP PPNI, 2018). To overcome continuous urinary incontinence, the researchers carried out urinary incontinence treatment (I.04163) and pelvic muscle exercises (I.07215) (Tim Pokja SIKI DPP PPNI, 2018).

According Harahap & Rangkuti (2020) pelvic muscle exercises can strengthen the levator ani muscles, maintain the endopelvic layer and nerve integrity which can increase awareness of the pelvic floor muscles to adjust the transmission of abdominal pressure, and increase the ability of these muscles to support the bladder, vagina, and rectum which can then increase the resistance of the urethral sphincter so that if done regularly it will be able to increase the continence period of urine.

The evaluation shows that continuous urinary incontinence has a partially resolved because the treatment of urinary incontinence and pelvic muscle exercises were carried out independently by the client for seven days and made three home visits. According to Tibaek et al., (2017), pelvic muscle exercis in post-stroke patients for 3 months with 12 weekly sessions and 60 minutes per session can affect lower urinary tract symptoms, one of which is urinary incontinence. Pelvic muscle exercises that are carried out aim to increase the strength of the pelvic muscles. (Slade et al., 2021). There was a decrease in the frequency of frequent and moderate urinary incontinence to rare incontinence after doing Kegel exercises for three days (Karjoyo et al., 2017).

DISCUSSION

The case study conducted showed that the elderly post-ischemic stroke experienced persistent urinary incontinence. In this case, the client was 70 years old and had a history of hypertension. The client complains that he does not feel like urinating but continues to urinate every day with a lot of urine output, during the day and night he often feels wet in his diaper. Urinary incontinence increases with age. Aging results in changes in the lower urinary tract that cause urinary incontinence in the elderly. With age, bladder capacity and contractility decrease, with a diminished ability to delay urination once the urge arises. Post-void residual urine volume increases with age (LIM, 2017).

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CONCLUSIONS

The provision of urinary incontinence treatment interventions and pelvic muscle exercises to overcome the nursing diagnosis of continuous urinary incontinence (D.0042) is associated with neurological dysfunction characterized by not feeling like urinating but continuing to urinate every day with a lot of urine output, during the day and at night often feeling wet on a diaper. Improving nursing care requires collaboration between patients, families, and health workers in performing pelvic muscle exercises independently, continuously, and regularly to increase detrusor-sphincter muscle strength and show improved urinary continence results.

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