

Midwifery Care for Menopausal Women with Hypertension through Beet Juice Therapy at the Ujung Kubu Community Health Center

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ABSTRACT

Menopause increases the risk of hypertension in women due to a decrease in estrogen hormones, which affects blood vessel elasticity. This study aims to describe the implementation of midwifery care for menopausal women with hypertension through the application of beet juice therapy as a complementary therapy. The research method used was qualitative with a descriptive case study design on one subject (Mrs. L, 55 years old) with grade 1 hypertension in the working area of the Ujung Kubu Community Health Center. Care was provided using Varney's midwifery management and SOAP documentation, with the intervention of administering 250 ml of beet juice per day for seven consecutive days. The results showed a significant decrease in blood pressure, from an initial reading of 160/100 mmHg to 140/85 mmHg after the intervention. In addition to clinical improvement, the subject also reported improvement in subjective complaints such as reduced dizziness, anxiety, and improved sleep quality. This reduction in blood pressure is supported by the natural nitrate content in beetroot, which is converted into nitric oxide to aid vasodilation of blood vessels. The conclusion of this study is that beetroot juice therapy has the potential to be an effective, safe, and economical non-pharmacological alternative therapy in midwifery care to help control blood pressure in menopausal women.

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INTRODUCTION

Menopause is a physiological stage in a woman's life characterized by the permanent cessation of the menstrual cycle due to decreased ovarian activity and reduced estrogen production. This decrease in estrogen levels plays a major role in various physiological changes, particularly in the cardiovascular system. Physiologically, estrogen has a protective effect on blood vessels by maintaining vascular elasticity and stimulating the formation of nitric oxide, which acts as a vasodilator. Estrogen deficiency during menopause can cause increased blood vessel stiffness, thereby contributing to an increased risk of hypertension and cardiovascular disease.

Hypertension in menopausal women is a health issue that requires serious attention because it often develops without specific symptoms and is known as a silent killer. If not managed optimally, hypertension can lead to various complications, such as coronary heart disease, stroke, and kidney dysfunction. The incidence of hypertension in menopausal women tends to increase with age and hormonal changes, necessitating comprehensive management efforts in healthcare services, including in obstetric practice.

The management of hypertension is generally carried out through pharmacological therapy. However, long-term use of antihypertensive drugs has the potential to cause side effects and dependence. Therefore, alternative supportive therapies that are non-pharmacological and complementary are needed. In the context of midwifery care, the application of non-pharmacological interventions that are safe, easy to apply, and supported by scientific evidence is an important option in helping to control blood pressure in menopausal women.

Midwives play a strategic role in managing hypertension through a promotive and preventive approach, especially among menopausal women. Midwifery care is focused on providing health education, controlling risk factors, monitoring blood pressure regularly, and implementing safe and evidence-based complementary therapies. This approach is expected to prevent complications, improve quality of life, and support holistic management of hypertension.

Beets (*Beta vulgaris*) are a natural ingredient with potential for use as a complementary therapy for people with hypertension due to their high natural nitrate content. These nitrates are converted in the body into nitric oxide, which plays a role in dilating blood vessels, thereby lowering blood pressure. Several studies have reported that regular consumption of beetroot juice can lower both systolic and diastolic blood pressure in hypertensive patients. Therefore, beetroot juice therapy is considered safe, easy to implement, and relevant as a supportive non-pharmacological therapy in midwifery care.

Although much research has been conducted on complementary therapies in the management of hypertension, case study-based midwifery care reports on menopausal women with hypertension are still relatively limited. In addition, there has been little publication of midwifery practices that systematically and structurally integrate complementary therapies. This indicates the need for research that describes the application of midwifery care with a complementary therapy approach as part of evidence-based midwifery services.

This study aims to describe the implementation of midwifery care in menopausal women with hypertension through the application of beetroot juice therapy as a complementary therapy. Specifically, this study aims to describe the stages of midwifery care, which include assessment, diagnosis, planning, implementation, and evaluation of care in accordance with midwifery management. In addition, this study also aims to determine changes in blood pressure before and after the administration of beetroot juice therapy as part of non-pharmacological intervention in menopausal women with hypertension.

METHODS

This study used a qualitative method with a descriptive case study design that aimed to describe the implementation of midwifery care for menopausal women with hypertension through the application of beetroot juice therapy. The research approach was conducted using comprehensive midwifery care based on Varney's midwifery management, which includes seven steps, with SOAP (Subjective, Objective, Assessment, Plan) documentation.

The study was conducted in the working area of the Ujung Kubu Community Health Center, Batubara Regency. The research subject was a 55-year-old menopausal woman with a diagnosis of grade 1 hypertension who was selected using purposive sampling techniques in accordance with the research inclusion criteria. The research population was all menopausal women with hypertension who received health services in the area.

Data collection was conducted through anamnesis, physical examination, clinical observation, and midwifery care documentation. Subjective data were obtained through interviews, while objective data were obtained from vital sign measurements, particularly blood pressure using a standard tensiometer. The intervention given was beet juice therapy of 250 ml per day with a composition of 70% beetroot and 30% water for seven consecutive days.

Data analysis was performed using descriptive comparative methods by comparing blood pressure before and after the intervention. The results of the analysis were presented in tables and narratives to describe changes in blood pressure and the subjective responses of the research subjects. This study took ethical considerations into account by obtaining informed consent from the research subjects and maintaining the confidentiality of the respondents' identities.

RESULTS AND DISCUSSION

The subject of the study was a 55-year-old menopausal woman, Mrs. L, who received health services in the working area of the Ujung Kubu Community Health Center. The subject had experienced menopause and was diagnosed with grade 1 hypertension. In the initial assessment, the subject complained of dizziness, anxiety, and sleep disturbances. Her initial blood pressure before the beet juice therapy intervention was recorded at 160/100 mmHg.

Blood pressure measurements were taken before the intervention and during the seven days of midwifery care with beet juice therapy. Blood pressure data were recorded sequentially to observe changes in blood pressure during the intervention period.

Table 1. Changes in Blood Pressure During Beet Juice Therapy

Day of Measurement	Blood Pressure (mmHg)
Day 1 (Pre-test)	160/100
Day 3	155/95
Day 5	150/90
Day 7	145/88
Day 8 (Post-test)	140/85

After seven days of beet juice therapy, changes in blood pressure were observed in the research subjects. Systolic blood pressure decreased from 160 mmHg at the initial measurement to 140 mmHg at the final measurement. Diastolic blood pressure decreased from 100 mmHg to 85 mmHg after the intervention was completed.

During the midwifery care and intervention process, the subjects reported changes in their subjective conditions. The dizziness complaints felt at the beginning of the assessment decreased during the intervention period. The subjects also stated that their sleep quality had improved and their anxiety had decreased compared to before being given beet juice therapy.

The results of the study show a decrease in blood pressure after seven days of beet juice therapy in menopausal women with hypertension. Systolic and diastolic blood pressure decreased gradually from the initial measurement to the end of the intervention. This decrease indicates a physiological response to the non-pharmacological intervention provided as part of midwifery care and shows that beet juice has the potential to help control blood pressure in menopausal women with hypertension.

This decrease in blood pressure is related to the vasodilation mechanism triggered by the natural nitrate content in beets (*Beta vulgaris*). Nitrates consumed are converted into nitric oxide, which plays a role in widening blood vessels and reducing peripheral vascular resistance. This mechanism is relevant in menopausal women who experience a decrease in estrogen levels, as estrogen deficiency contributes to reduced endogenous nitric oxide production and increased blood vessel stiffness. Thus, beet juice therapy may help support vascular function and contribute to the blood pressure reduction observed in this study.

Beet juice therapy is a form of complementary therapy that is relevant for menopausal women with hypertension. During menopause, hormonal changes, particularly a decrease in estrogen, increase the risk of cardiovascular disorders, requiring a care approach that is not only curative but also preventive and promotive. Beet juice as a complementary therapy is considered appropriate because it is natural, easily available, relatively safe, and has a mechanism of action that supports blood pressure control.

In the management of non-pharmacological hypertension, midwives play an important role in providing health education, monitoring blood pressure regularly, and guiding menopausal women in the application of appropriate complementary therapies. Through continuous midwifery care, midwives can help menopausal women understand the importance of blood pressure control, support adherence to non-pharmacological interventions, and prevent complications of hypertension. The integration of beetroot juice therapy into midwifery care reflects a holistic approach that focuses on improving the quality of life of menopausal women.

Beetroot juice therapy can be used as an easily applied, safe, and economical non-pharmacological intervention in midwifery services, especially for menopausal women with hypertension. Midwives in primary health care can integrate this therapy into blood pressure education and monitoring activities as part of ongoing midwifery care. The application of beetroot juice therapy has the potential to increase menopausal women's compliance with hypertension management and support promotive and preventive efforts in the community.

This study used a single-subject case study design, so the results cannot be generalized. In addition, the influence of lifestyle factors such as diet, physical activity, and stress levels could not be fully controlled during the study, which could potentially affect blood pressure changes.

CONCLUSION

Menopause causes a decrease in estrogen hormones, which leads to increased blood vessel stiffness and the risk of hypertension, thus requiring comprehensive treatment through midwifery care with a complementary therapy approach. This qualitative research with a descriptive case study design was conducted on Mrs. L (55 years old) with grade 1 hypertension at the Ujung Kubu Community Health Center using Varney's midwifery management and SOAP documentation. The intervention consisted of administering 250 ml of beet juice per day for seven consecutive days to utilize the natural nitrate content, which is converted into nitric oxide to aid in blood vessel vasodilation. The results showed a significant decrease in blood pressure from 160/100 mmHg to 140/85 mmHg, accompanied by improvements in subjective conditions such as reduced dizziness, anxiety, and improved sleep quality. Overall, beetroot juice therapy has been shown to have the potential to be an effective, safe, and economical non-pharmacological alternative for controlling blood pressure in menopausal women, although this study has limitations in terms of data generalization as it only involved one subject.

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