

Effect of Kersen (*Muntingia calabura* l) leaf decoction on perineal wound healing in postpartum women at Murniati Clinic, Kisaran

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ABSTRACT

Kersen is a traditional medicine. Kersen leaves have properties as antipyretic, anti-inflammatory, and even harmful antimicrobials and can be used as a natural antiseptic (Noorhamdani Yosef & Rosalia, cited by Salsabila. F, 2021). This research method uses the pre-experimental method, with the design of One Group Pretest-Posttest Without Control. The population of this study amounted to 32 postpartum women using the total sampling technique. The research instrument used an observation sheet. Data analysis techniques using descriptive analysis and chi-square test. The results of the study There is an effect of Kersen leaf decoction on perineal wound healing in postpartum women at the Murniati clinic in Kisaran in 2023, with a p-value = 0.000 ($p < 0.05$). These results prove that kersen leaf decoction is effective in accelerating the healing of perineal wounds in postpartum women at the Murniati clinic in Kisaran, 2023. It is concluded that there is an effect of Kersen leaf decoction on the healing of perineal wounds in postpartum women. The suggestion of this study is that health services and health workers, especially midwives, are expected to provide education and practice to postpartum women about the use of Kersen leaf decoction for healing perineal wounds so that postpartum women can understand the benefits and disadvantages of not treating perineal wounds.

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INTRODUCTION

Childbirth often results in tears in the birth canal, both in the first delivery and in subsequent deliveries. Perineal wounds are defined as tears in the birth canal spontaneously or with episiotomy during fetal delivery, the impact of perineal wounds on the mother includes infection of the suture wound and can spread to the bladder or birth canal so that it can cause complications of bladder infection and birth canal infection (Retno Setyo Iswati and Yefi Marliandiani, quoted by Salsabila, 2021).

Postpartum infections are still the main cause of maternal death, especially in developing countries such as Indonesia, this problem is due to the fact that health services are far from perfect (Widyastuti 2016, cited by Ratih. R.H, 2020). Factors that cause puerperal infections include a weak immune system, poor postpartum care, malnutrition, poor personal hygiene, and fatigue. The main

cause of puerperal infection is an opening in the perineum (Widyastuti et al., cited by Ratih. R.H, 2020).

According to the World Health Organization (WHO) in 2020 the Maternal Mortality Rate (MMR) worldwide will be 295,000 deaths with the causes of maternal deaths being high blood pressure during pregnancy (pre-eclampsia and eclampsia), bleeding, postpartum infection, and unsafe abortion (WHO, 2021 cited by Nurhidayah, et al, 2022). According to ASEAN data, the highest MMR is in Myanmar at 282,00/100,000 KH in 2020 and the lowest MMR is in Singapore in 2020 there are no maternal deaths in Singapore (ASEAN Secretariat, cited by Nurhidayah, et al., 2022). In the Asian continent alone 50% of mothers giving birth experience perineal wounds (Rita, 2021 cited by Misrina & Silvia, 2022).

Several factors can accelerate the healing of perineal wounds, including the mother's condition, nutritional status, socio-culture, personal hygiene, facilities and infrastructure (Rukiyah, in Salsabila.F, 2021). The wound can heal within 6-7 days if the mother can take good care, otherwise the wound healing process will take longer and can cause infection if the wound is not properly cared for (Mochtar, cited in Salsabila.F, 2021). Pengobatan luka perenium ditujukan untuk menekan respon inflamasi dengan menggunakan obat-obat anti inflamasi secara peroral yang dapat menimbulkan berbagai efek pada ibu nifas. Oleh karena itu, perlu dikembangkan penatalaksanaan luka perineum yang tepat pada masa nifas. Berdasarkan beberapa penelitian, daun kersen dapat digunakan sebagai obat karena daun kersen mengandung senyawa flavonoid, saponin, polifenol dan tanin sehingga dapat digunakan sebagai antioksidan, antibakteri dan antiinflamasi (Retno Setyo Iswati & Yefi Marliandiani, dikutip Salsabila.F, 2021).

The puerperium is a crucial period for a mother after childbirth. This period begins after the birth of the placenta and ends when the uterine organs return to their pre-pregnancy condition. The process of recovery and adjustment of the mother's body lasts for about 6 weeks or 42 days, although overall recovery can last up to 3 months (Anggraini. Y, 2021). The puerperium includes three different periods, namely early puerperium, intermedial puerperium, and remote puerperium.

In the early puerperium, which is 0-24 hours postpartum, the mother has been allowed to stand and walk, and in some religious traditions, has been considered clean and can return to her usual activities after 40 days. In the intermedial puerperium period, which is 1-7 days postpartum, the mother's genitals take 6-8 weeks to fully heal. Meanwhile, in the remote puerperium, which is 1-6 weeks postpartum, recovery and health depend entirely on the mother's condition, especially if there are complications during pregnancy and childbirth.

Midwifery care in the puerperium aims to maintain the health of the mother and baby, both physically and psychologically. In addition, midwifery care also involves comprehensive screening for early detection of complications in mothers and babies, providing health education on self-care, nutrition, family planning, breastfeeding, immunization, and baby care, as well as providing family planning services and emotional care (Mastiningsih. P & Agustina. Y.C, 2019).

Midwives have important roles and responsibilities in providing postpartum care. They should provide continuous support to mothers to reduce physical and psychological strain during the puerperium. Midwives also encourage mothers to breastfeed their babies comfortably and carry out care management by collecting data, determining diagnoses, and planning actions to accelerate the recovery process and prevent complications.

During the postpartum period, some of the problems often encountered are postpartum hemorrhage, which occurs due to abnormal blood loss after childbirth, and preeclampsia, which is characterized by high blood pressure. In addition, this study will also focus on the role and benefits of kersen (*Muntingia calabura*) leaf extract as an herbal medicine plant that has the potential as an antibiotic, antinociceptive, anti-ulcer, and anti-inflammatory (Rahamatia. D.A, (2022).

RESEARCH METHOD

This study used the Pre-Experimental method with a Group Pretest-Posttest Without Control design (Sugiyono, cited by Agustina. Y, 2018). The study population consisted of 32 postpartum mothers who experienced perineal wounds and underwent treatment at the Murniati clinic in Kisaran in 2023, using the Total Sampling technique. The data collected is primary data, which involves the use of observation sheets to record the administration of Kersen leaf decoction and questionnaire sheets to measure the level of perineal wound healing in postpartum mothers. The data will be processed using SPSS version 20 statistical software, with quantitative analysis in order to obtain research results that can be interpreted objectively.

RESULTS AND DISCUSSIONS

Respondent Characteristics

Based on the results of research at the Murniati Clinic Kisaran in 2023, data on the characteristics of respondents based on age, education, occupation, and parity were obtained from 32 respondents. The results of the respondent's characteristic data are presented in tabular form below:

Table 1. Data on Respondents' Characteristics at Murniati Clinic, Kisaran, 2023

No	Demographic Data	Frequency	Percentage (%)
1	Age		
	≤20 years	3	9,4
	21-35 years	27	84,4
	>35 years	2	6,2
	Total	32	100
2	Education		
	Junior High	8	25,0
	High School	22	68,8
	Higher Education	2	6,2
	Total	32	100
3	Jobs		
	Working at home	8	25,0
	Working outside the home	5	15,6
	Not working	19	59,4
	Total	32	100
4	Parity		
	Primiparous	19	59,4
	Multiparous	13	40,6
	Total	32	100

Characteristics of respondents based on demographic data based on the age of the majority aged 21-35 years as many as 27 people (84.4%), with the majority of high school education as many as 22 people (68.8%), and not working or housewives as many as 19 people (59.4%) with primiparous parity as many as 19 people (59.4%).

Perineal Wound Healing in Postpartum Women Before Giving Kersen Leaf Decoction at Murniati Clinic, Kisaran, 2023

Data on perineal wound healing in postpartum women before giving kersen leaf decoction at the Murniati clinic in Kisaran in 2023 can be seen in Table 1 below:

Table 2: Data on the Frequency of Perineal Wound Healing in Postpartum Women Before Giving Kersen Leaf Decoction at the Murniati Clinic, Kisaran, 2023.

Perineal Wound Healing (Pre)	Frequency	%
Good Condition (0-2)	0	0,0
Moderate Condition (3-5)	11	34,4
Unhealthy condition (6-8)	20	62,5
Poor Condition (9-15)	1	3,1
Total	32	100,0

Based on Table 2 shows that out of 32 postpartum women before being given Kersen leaf decoction water, as many as 20 respondents (62.5%) with perineal wound conditions in an unhealthy condition, 11 respondents (34.4%) with perineal wound conditions in a moderate condition and 1 respondent (3.1%) with perineal wound conditions in poor condition.

Healing of Perineal Wounds in Postpartum Women After Giving Kersen Leaf Decoction at Murniati Clinic, Kisaran, 2023

Data on perineal wound healing in postpartum women after giving a decoction of Kersen leaves at the Murniati clinic in Kisaran in 2023 can be seen in Table 2 below:

Table 3. Frequency Distribution of Perineal Wound Healing in Postpartum Women After Giving Kersen Leaf Decoction at the Murniati Clinic, Kisaran, 2023

Perineal Wound Healing (given Kersen leaf decoction)	Frequency	%
Good Condition (0-2)	13	40,6
Moderate Condition (3-5)	18	56,3
Unhealthy condition (6-8)	1	3,1
Poor Condition (9-15)	0	0,0
Total	10	100,0

Based on Table 3 shows that of the 32 postpartum women who have been given therapy using Kersen leaf decoction water, as many as 18 respondents (56.3%) with perineal wounds in moderate condition, 13 respondents (40.6%) with perineal wound conditions in good condition and 1 respondent (3.1%) with unhealthy perineal wound conditions.

Bivariate Analysis

Effect of Kersen Leaf Decoction on Perineal Wound Healing in Postpartum Women at the Murniati Clinic in Kisaran in 2023. Data on the effect of Kersen leaf decoction on perineal wound healing in postpartum women at the Murniati clinic in Kisaran in 2023 can be seen in Table 4 below:

Table 4. Effect of Kersen Leaf Decoction on Perineal Wound Healing in Postpartum Mothers at Murniati Clinic, Kisaran, 2023

Perineal Wound Healing Data	N	Mean	Z	p-value
Pre-test	32	5,91	-5,203	0,000
Post-test	32	3,00		

Based on Table 4, the average healing of perineal wounds in postpartum women before and after being given kersen leaf decoction water has increased significantly, whereas before being given kersen leaf decoction water, the results of observations of perineal wound healing are in moderate and unhealthy conditions, namely 5.91. After being given kersen leaf decoction water, the results of

observations of perineal wound healing were in good and moderate conditions, namely with an average observation of 3.0.

Discussions

Perineal Wound Healing in Postpartum Women Before Giving Kersen Leaf Decoction Water at Murniati Clinic, Kisaran, 2023

Based on Table 2 shows that out of 32 postpartum women before being given Kersen leaf decoction water, as many as 20 respondents (62.5%) with perineal wound conditions in an unhealthy condition, 11 respondents (34.4%) with perineal wound conditions in a moderate condition and 1 respondent (3.1%) with perineal wound conditions in poor condition.

Perineal wounds are divisions (ruptures, injuries, abrasions) on the skin due to exposure to sharp items, friction, and pressure, in the perineal area (Anggraeni, 2012). Poor perineal wound care leads to infection. The condition of the perineum that is exposed to lokea and moisture will greatly support the proliferation of bacteria that can cause infection in the perineum. According to the researchers, perineal wound healing before being given Kersen leaf decoction water was still classified as unhealthy and moderate. This occurs due to the lack of vitamin and nutrient intake consumed by the mother during wound healing. So, it is expected that postpartum mothers consume foods that have a balanced nutritional content so that the perineal wound heals faster.

Healing of Perineal Wounds in Postpartum Women After Giving Kersen Leaf Decoction at Murniati Clinic, Kisaran, 2023

Based on the results of the post-test study, it shows that out of 32 postpartum women who have been given therapy using kersen leaf decoction water, 18 respondents (56.3%) experienced perineal wounds in a moderate condition, 13 respondents (40.6%) with perineal wounds in good condition and 1 respondent (3.1%) with perineal wounds still unhealthy.

Kersen leaf (*Muntingia calabura* L.) is a plant that has been utilized by the community for various diseases, including inflammation. One of the chemical contents contained in kersen leaves is flavanoid which provides anti-inflammatory effects. This effect is because of flavonoid effects on arachidonic acid metabolism and the effect of inhibitors of cloosigenases such as prostaglandins and thrombosans, as it is known that prostaglandins in the body are responsible for most symptoms of inflammation (Wahyuni Sariyati, 2016).

This is in line with the research of Retno Setyo Iswati (2017) showing that the group given extra kersen leaves were 9 people who experienced a fast-healing process (45%) and 1 person who experienced a slow healing process (5%). In the group without kersen leaves, there were 3 people who experienced a fast-healing process (15%) and 7 people who experienced a slow healing process (35%).

The wound healing mechanism is also influenced by several factors, such as age because wound healing will occur faster at a younger age. Postpartum women aged less than 35 years showed faster wound healing. This is in line with research showing that postpartum mothers at a young age have relatively fast wound healing because the regeneration process of damaged tissue will be quickly replaced by new tissue (Sari, 2019).

According to the researchers, postpartum mothers who performed perineal wound care using Kersen leaf decoction water mostly experienced a faster perineal wound healing process. This is because the water contains antiseptics that can kill germs increase resistance to infection and accelerate wound healing. Apart from the benefits of kersen leaf content, rapid healing of perineal wounds can also be influenced by the age and nutrition of respondents, Nutrition that contains protein will increase the body's immunity, but the mother's health condition both physically and mentally can cause the length of healing.

The Effect of Kersen Leaf Decoction on the Healing of Perineal Wounds in Postpartum Mothers at the Murniati Clinic, Kisaran, 2023

Based on the results of data analysis, it was found that the average healing of perineal wounds in postpartum women before and after being given Kersen leaf decoction water experienced a significant increase, whereas before being given Kersen leaf decoction water, the results of observations of perineal wound healing were in moderate and unhealthy conditions, namely 5.91. After being given kersen leaf decoction water, the observation results showed an average range of 3.0 or perineal wound healing was in good and moderate conditions.

The existence of significant changes in perineal wound healing before and after being given kersen leaf decoction water can be known by using the Wilcoxon test at a level of significance of 95% ($\alpha = 0.05$). The results of the analysis obtained a value of $p=0.000$ ($p<0.05$). Therefore, the hypothesis is accepted, this means that there is an effect of kersen leaf decoction on perineal wound healing in postpartum women. These results prove that kersen leaf decoction is effective in accelerating perineal wound healing in postpartum women at the Murniati clinic in Kisaran in 2023.

Based on the explanation above, the researcher argues that Kersen leaf decoction can affect the healing of perineal wounds in postpartum women. This is supported by other factors that influence rapid wound healing including nutritional intake obtained by mothers during the postpartum period for the recovery of the mother's physical condition, and also personal hygiene where mothers who diligently change sanitary napkins and perform proper care using betel leaf water will dry the wound more quickly.

According to the researcher's assumption that the healing of perineal wounds in respondents who were given kersen leaf decoction was faster than respondents who were not given it, this was due to the chemical content of binahong leaves which could accelerate the healing process. The healing of perineal wounds is fast because there are several influencing factors such as age, healthy reproductive age is the age of 20-35 for a woman to become pregnant and give birth, and nutritional factors, nutrients that contain protein will increase the body's immunity.

CONCLUSION

Based on the study's findings, the researcher offers several pertinent recommendations. Firstly, health practitioners, especially midwives, should provide education and hands-on training to postpartum women regarding the utilization of Kersen leaf decoction to facilitate perineal wound healing. This initiative aims to enhance postpartum women's comprehension of the advantages and significance of tending to perineal wounds. Moreover, academic institutions can benefit from this study by incorporating insights into the efficacy of Kersen leaf decoction for perineal wound healing into their curricula. Proposing specialized training concerning the application of Kersen decoction for postpartum mothers can augment community services, enabling the wider dissemination of valuable information and benefiting numerous individuals. As a suggestion for future researchers, engaging in direct intervention studies focused on the implementation of Kersen leaf decoction for perineal wound healing is recommended. By conducting firsthand observations, researchers can attain more profound and accurate insights into the intervention's impact on the research subjects. This course of action is anticipated to furnish a more comprehensive understanding of the potential utility of kersen leaf decoction within the realm of postpartum maternal care.

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