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The effect of giving cherry leaves boiled water (*muntingia calabura l*) on the healing of perineal wounds in postpartum mothers at the Dorara Primary Clinic, Sunggal Kanan Village, Deli Serdang Regency

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ABSTRACT

Perineal tears often occur in normal labor, whose normal healing occurs 6-7 days postpartum. Improper handling of perineal wounds can cause infection, so it will increase the number of pain in the mother. The purpose of the study was to determine the effect of giving Kersen leaf boiled water (Muntingia calabura L) on the healing of perineal wounds in postpartum mothers.This study used quantitative data analysis and quasi-experimental research design with two groups, namely the control group and the intervention group. The study population was 10 postpartum mothers who gave birth starting from week 3 in July – week 2 in August at Pratama Dorara Clinic. The results showed that the intervention group given boiled water kersen leaves showed rapid wound healing as much as 5 (100.0%), and the control group showed normal wound healing as much as 4 (80%), and slow wound healing as much as 1 (20%). The results of the Wilcoxon Test obtained p value = 0.034 < 0.05 so that there is an effect of giving kersen leaf boiled water on perineal wound healing in postpartum mothers. The conclusion of the study is the effect of giving kersen leaf boiled water on the healing of perineal wounds in postpartum mothers at the Dorara Pratama Clinic, Sunggal Kanan Village, Deli Serdang Regency in 2023. It is recommended that puerperal mothers wash perineal wounds with water boiled cherry leaves to speed up the healing process of perineal wounds.

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1. Introduction

Childbirth often causes tears or injuries to the birth canal, both in the first delivery and not infrequently also occurs in subsequent labors. Perineal wound is a tear in the birth canal spontaneously or due to episotomy at the time of fetal delivery. As a result of the occurrence of perineal wounds in the mother, among others, infection in the suture wound, and can propagate to the bladder tract or in the birth canal so that it can result in complications of bladder infections and infections in the birth canal. Long handling of complications can result in the death of postpartum mothers considering the condition of postpartum mothers is still weak. Try one of these alternatives or see Help for hints on refining your

search. Puerperal infection is a morbidity and mortality for mothers during the puerperium.(Astuti & Hartinah, 2021)

According to the World Health Organization (WHO) in 2020, 800 women died during pregnancy and childbirth. In 2020, about 287,000 women died during pregnancy and after childbirth. Nearly 95% of all maternal deaths occurred in low- and middle-income countries in 2020, and most were preventable. The morbidity rate of mothers and babies is a benchmark in looking at the health status of a nation, therefore the government places great emphasis on reducing maternal and infant mortality through health programs. In the implementation of health programs, competent human resources are needed, so that what is the goal can be achieved. (Sulaiman, 2021)

The Sustainable Development Goals (SDGs) are used here. Africa and South Asia accounted for about 87% (253,000) of the estimated global maternal deaths in 2020. Africa alone accounts for about 70% of maternal deaths (202,000), while South Asia accounts for about 16% (47 000). (RI, 2017)

At the same time, between 2000 and 2020, Eastern Europe and South Asia achieved the largest declines in the Maternal Mortality Rate (MMR), decreasing by 70% (from MMR of 38 to 11) and 67% (from MMR of 408 to 134). Women die from complications during and after pregnancy and childbirth. Most of these complications develop during pregnancy and most can be prevented or treated. (Primadevi & Indriani, 2022)

Other complications may be present before pregnancy but worsen during pregnancy, especially if not managed as part of a woman's care. The main complications that cause nearly 75% of all maternal deaths are severe bleeding (mostly postpartum bleeding), infections (usually after childbirth), high blood pressure during pregnancy (pre-eclampsia and eclampsia), complications from childbirth, and unsafe abortions. (Justian, 2022)

According to the 2021 Indonesian Health Profile, the maternal mortality rate collected from the recording of family health programs at the Indonesian Ministry of Health increases every year. In 2021 there were 7,389 deaths in Indonesia, this number shows an increase compared to 2020 of 4,627 deaths. Maternal mortality is caused by COVID-19 (2,982 people), bleeding (1,320 people), others (1,309 people), hypertension in pregnancy (1,077 people), heart (335 people), infections (207 people), metabolic disorders (80 people), circulatory system disorders (65 people), and abortion (14 people). (Supartini, n.d.)

The highest maternal mortality rate according to the Health Profile of North Sumatera. In 2020 it was caused by bleeding (73 people), hypertension in pregnancy (54 people), other causes that are not detailed and the exact cause is unknown (47 people), infections (4 people), circulatory system disorders (8 people), and metabolic disorders 1 person. (Simanjuntak & Syafitri, 2020)

In labor can cause injury to the genitals where the most common is injury during labor, can occur in the uterus, cervix, vagina and perineum. The degree of injury can be minor only in the form of abrasions to severe in the form of extensive tearing and accompanied by severe bleeding, can be classified based on the degree of laceration, namely degree I, degree II, degree III and degree IV. (Oktarina, 2015)

Wounds in the perineum due to lacerations are areas that are not easy to keep clean and dry, if the wound healing process is not handled properly, it can cause not optimal healing of the wound. This can cause bleeding can not stop properly or cause infection which can eventually cause death in the mother. As a result of improper perineal care can cause the condition of the perineum affected by lochea and moist is very supportive for the proliferation of bacteria that can cause infection in the perineum.(Wulandari & Rahayuningsih, 2022)

Efforts to prevent the occurrence of perineal laceration infection can be given with pharmacological therapy. Pharmacological therapy is by giving antibiotics and antiseptics (povodine iodine) to treat perineal wounds, but these drugs and ingredients have side effects such as allergies, inhibiting the manufacture of collagen that functions for wound healing. (Yuliana, 2022)

In addition to pharmacological therapy, efforts to prevent the occurrence of perineal laceration infection can be given nonpharmacological therapy, namely by giving boiled water of cherry leaves to perineal wounds. Kersen leaves have antimicrobial activity, namely flavonoids that can kill

Staphylococcus aureus bacteria. Staphylococcus aureus is an important pathogen in humans that can cause various cases of diseases such as skin infections to sepsis. Most healthy individuals Staphylococcus aureus can be found in the respiratory tract, hair and skin. (Widyastuti, 2019)

Flavonoids work by damaging the permeability of bacterial cell walls, microsomes and lysosomes as a result of the interaction between flavonoids and bacterial DNA, releasing transduction energy against the bacterial cytoplasmic membrane and inhibiting bacterial motility, besides flavonoids are also able to facilitate blood circulation throughout the body, prevent blockage of blood vessels, contain anti-inflammatory and help reduce pain in the event of bleeding or swelling. (Wardani, 2020)

In binahong leaves, flavonoid content is as much as (2S)-5'hydroxy- 7,3',4'-trimethoxyflavan(10). Kersen leaves can help the healing process of perineal wounds because they contain flavonoids, tannins, and saponins (11). Kersen leaves contain flavonoid compounds consisting of 2,4 dihydroxy, 3 methoxydihydrochalcone, 8 hydroxy, and 6 methoxyflavone. (32) In betel leaves, flavonoid content is 6.09 mg / g.(Salsabila, 2021)

2. Research methods

The research design used was post test only control group design. This design allows researchers to measure the effect of treatment on the experimental group by comparing the group with the control group. (Payadnya & Jayantika, 2018)

The population targeted for research relates to a group of subjects, both humans, symptoms, test values of objects, and events. In this study, the population taken was 10 postpartum mothers who gave birth at the Dorara Pratama Clinic in Sunggal Kanan Village. The sampling technique in this study was purposive sampling. The number of samples used in this study was 10 postpartum mothers

Inclusion Criteria: Postpartum mothers start on the second day who give birth at Dorara Pratama Clinic in Sunggal Kanan Village starting from the 3rd week of July – the 2nd week of August. Spontaneous postpartum mothers who undergo perineal lacerations of 1st and 2nd degree. Spontaneous postpartum mother with hecting (perineal suture). Spontaneous postpartum mothers who are willing to fill out informed consent.

Exclusion Criteria: Spontaneous postpartum mothers who undergo 3rd and 4th degree lacerations. Postpartum mothers with childbirth complications. Spontaneous postpartum mothers who have diseases that can interfere with wound healing such as diabetes mellitus. Spontaneous postpartum mothers who are unwilling to fill in informed consent.

3. Analysis and Results

Based on research, healing perineal wounds in postpartum mothers who were given treatment by washing boiled water from cherry leaves and those who were not given cherry leaves can be seen in the following table.

Table 1
Frequency distribution of cherry leaf decoction water and perineal wound healing in postpartum mothers at Dorara Pratama Clinic, Sunggal Kanan Village

No	Perineal wound healing	Giving cherry leaf water				Sum	
		Given		Not given			
		f	%	f	%	F	%
1	Fast	5	100	0	0	5	50
2	Normal	0	0	4	4	4	40
3	Slow	0	0	1	1	1	10
	Sum	5	100	5	100	10	100

Based on table 1, showed that in the intervention group, those given treatment with kersen leaf boiled water showed rapid perineal wound healing as many as 5 people (100%), and in the control group showed normal perineal wound healing as many as 4 people (80.0%), and slow wound healing as much as 1 person (20.0%).

Table 2
The results of the normality test data on the duration of healing perineal wounds in postpartum mothers who were given treatment with boiled water from cherry leaves and those who were not given treatment.

Kolmogorov-Smirnov[a]			Shapiro-wilk		
Statistic	Df	Sig.	Statistic	df	Sig.
.473	5	.001	.552	5	.000

Based on table 2, the normality test results showed that the frequency of perineal wound healing in the intervention group and the control group was not normally distributed with a Sig. value of >0.05 which is 0.000

Table 3
Wilcoxon test results the effect of giving cherry leaves boiled water (muntingia calabura l) on perineal wound healing in postpartum mothers at Dorara Primary Clinic in 2023

Healing Control Group - Healing Intervention Group	
Z	-2.121
Asymp. Sig. (2-tailed)	.034

Based on table 3, indicates that the value of Sig is obtained. (2-tailed) in the comparison of the control group and the intervention group of 0.034. Therefore, it can be said that the healing of perineal wounds given boiled water treatment of cherry leaves is faster than the healing of perineal wounds that are not given boiled water of cherry leaves. The results of the Wilcoxon test analysis obtained a significant value p = 0.034 < 0.05, this means that there is an effect of giving kersen leaf boiled water (muntingia calabura l) on perineal wound healing at the Dorara Pratama Clinic, Sunggal Kanan Village, Deli Serdang Regency in 2023.

Cherry leaves can help the wound healing process because they contain flavonoids, tannins, and saponins. (Anisa, 2022) The content of tannins and flavonoids can inhibit and even kill bacteria that infect wounds. Flavonoids are compounds that are disinfectants that work to denature proteins that can cause cell metabolic activity to stop.(Wahjuni et al., 2022) Flavonoids can function as antimicrobia, antiviral, antioxidant, antihypertensive, stimulate estrogen formation, and treat impaired liver function. (Putra, 2020)

Giving water decoction of cherry leaves is washing the vagina for 7 days at a dose of 250 ml 2 x a day. In this study, there was a control group, namely postpartum mothers who were not given treatment by washing perineal wounds using boiled water from cherry leaves as many as 5 people and an intervention group, namely postpartum mothers who were given treatment by washing perineal wounds using boiled water from cherry leaves. In the control group, for 8 days observation was carried out on the duration of healing of perineal wounds. In the intervention group, for 8 days boiled water was given to the perineal wound and observed on the duration of healing of the perineal wound. Giving boiled water is given to postpartum mothers in the morning as much as 500 ml, and instructing postpartum mothers to wash perineal wounds as much as 250 ml in the morning and evening.

Rupture is a wound to the perineum caused by natural tissue damage due to the process of pushing the fetal head or shoulder during labor. The shape of the rupture is usually irregular, so the torn tissue is difficult to suture. Another impact of perinium rupture or birth canal tear is infection.(Rochmayanti et al., 2019) Perineal wound healing is said to be fast if the healing time is < than 6 days, it is said to be normal if the healing time is 6-7 days, and is said to be slow if the healing time is > 8 days. (Fatimah et al., 2021)

There are external and internal factors that can affect perineal wound healing. External factors that affect wound healing include environment, tradition, knowledge, socio-economy, maternal condition, antibiotic administration, and personal hygiene. While internal factors that affect wound healing are age, tissue trauma or infection, tissue treatment, hemorrhagy, hypovolemia, local edema factors, nutritional deficits, personal hygiene, oxygen deficits, types of labor, types of perineal wound sutures, and hemoglobin levels. (Yuliana, 2022)

According to the researchers' assumptions, perineal wound healing experienced by puerperal mothers in the control group as many as 4 people experienced normal wound healing, while in 1 person experienced slow wound healing, this is because puerperal mothers said that rarely changing pads that cause the genital area to become moist, and do not keep the genital area dry like after urinating. In the intervention group, as many as 5 people. Experiencing rapid wound healing, namely the wound healed on the 5th day post partum with a wound that was well fused, there was no redness, there was no swelling in the wound area and also there was no discharge from the perineal wound.

This is in line with Andayani Boang Manalu and Tetty Junita Purba's research in 2021 on the Effect of Using Breast Milk and Kersen Leaf Decoction on the Length of Treatment Time for Perineal Wound Healing in Nifas Mothers at the Citra Clinic, Patumbak District, Deli Serdang Regency that the results of the analysis are known to heal perineal wounds using breast milk, a sig value of 0.000 is obtained, while in healing perineal wounds using cherry leaves, a sig value of 0.001 < 0.05 is obtained. (Manalu & Purba, 2021)

According to the researchers' assumptions, the healing time of perenium wounds can be influenced by several factors. One of the factors influencing the healing process of perineal wounds is the personal hygene which includes the vulva hygene. This is based on the results of observations that have been made by researchers, namely 9 out of 10 postpartum mothers both in the control group and the intervention carried out Hygene's vulva well, and also keeps the genital area as dry as after urination. The wound healing process can also be helped by using antiseptic liquids pharmacologically and also giving cooking water from plants. Kersen leaves that have many benefits, and also the content in cherry leaves, namely flavonoids can help the healing process of perineal wounds.

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4. Conclusion

Based on the results of research conducted by researchers, it shows that the effect of giving boiled water kersen leaves (muntingia calabura l) on the healing of perineal wounds in postpartum mothers at the Dorara Pratama Clinic, Sunggal Kanan Village, Deli Serdang Regency in 2023. There is an effect of giving kersen leaf boiled water with perineal wound healing in postpartum mothers at Dorara Primary Clinic in 2023, with the results of the Wilcoxon Test test obtained analysis results with p value = 0.034 < 0.05 so that there is an effect of kersen leaf boiled water (muntingia calabura l) on perineal wound healing in postpartum mothers. The limitation of the research is that at first the respondents refused to be given boiled leaves, so researchers needed an approach with community leaders to make it easier to interact and Future researchers can conduct research using boiled cherry leaf water to speed up the healing process of other wounds apart from birth canal wounds.

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