

## DIFFERENCES IN THE EFFECTIVENESS OF BINAHONG LEAF BOILED COMPRESSES AND RED BETEL LEAF BOILING FOR HEALING PERINEAL WOUNDS IN POST PARTUM MOTHERS

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### ABSTRAK : EFEKTIFITAS KOMPRES REBUSAN DAUN BINAHONG DAN REBUSAN DAUN SIRIH MERAH TERHADAP PENYEMBUHAN LUKA PERINEUM PADA IBU NIFAS

Latar Belakang: Ruptur perineum merupakan perlukaan jalan lahir yang terjadi saat kelahiran bayi baik menggunakan alat maupun tidak menggunakan alat. Dampak apabila luka perineum tidak dirawat dengan baik adalah terjadi infeksi pada ibu nifas. Infeksi pada ibu nifas merupakan salah satu penyebab kematian pada ibu post partum

Tujuan: Untuk melihat perbedaan efektifitas penyembuhan luka perineum dengan menggunakan air rebusan daun binahong dan air rebusan sirih merah di TPMB Kiswari Kota Metro

Metode: Penelitian *quasi experiment* dengan rancangan *Non equivalent control group design*. Populasi semua ibu nifas dengan robekan perineum dengan sampel 12 orang tiap kelompok intervensi diambil secara random. Analisis Bivariat akan menggunakan uji *t test* independen

Hasil: Terdapat perbedaan efektifitas air rebusan binahong dan air rebusan sirih merah dalam penyembuhan luka robekan perineum dengan *p value* sebesar 0,002

Kesimpulan: Penggunaan kompres air rebusan binahong lebih efektif dibandingkan dengan kompres air rebusan sirih merah dalam penyembuhan luka robekan perineum

Saran : kepada bidan praktik mandiri agar mulai menggunakan terapi non farmakologi dalam penyembuhan luka robekan perineum terutama menggunakan kompres air rebusan binahong

Kata Kunci : Luka Robekan Perineum, Binahong, Sirih Merah

### ABSTRACT

Background: Perineal rupture is a birth canal injury that occurs during the birth of a baby, whether using tools or not using tools. The impact if the perineal wound is not treated properly is that infection occurs in the postpartum mother. Infection in postpartum mothers is one of the causes of death in postpartum mothers

Purpose: To see the difference in the effectiveness of healing perineal wounds using boiled water from binahong leaves and boiled water from red betel at TPMB Kiswari Metro City

Method: Quasi experimental research with a non-equivalent control group design. The population of all postpartum mothers with perineal tears with a sample of 12 people per intervention group were taken randomly. Bivariate analysis will use the independent t test

Results: There is a difference in the effectiveness of binahong boiled water and red betel boiled water in healing perineal lacerations with a p value of 0.002

Conclusion: Using binahong boiled water compresses is more effective than red betel boiled water compresses in healing perineal lacerations

Suggestion: for independent practicing midwives to start using non-pharmacological therapy in healing perineal lacerations, especially using binahong boiled water compresses

Keywords: Perineal Tears, Binahong, Red Betel

### INTRODUCTION

Perineal rupture is an injury to the birth canal that occurs during the birth of a baby, whether using tools or not using tools. According to World Health (WHO), there are 2.7 million cases of perineal

rupture in mothers giving birth, it is estimated that it will reach 6.3 million in 2050. In Asia, perineal rupture in society accounts for 50% of the incidence of perineal rupture in the world. Based on the results of a preliminary survey at PMB Kiswari Metro City, the

incidence of perineal tears during 2021 was 35% and from January to February 15 2022 it was 30% and at PMB there has never been a patient who has treated/treated perineal tears using boiled water from binahong leaves. as well as boiled water from red betel leaves (PMB Kiswari, 2022).

The impact if the perineal wound is not treated properly is that infection occurs in the postpartum mother. Infection in postpartum mothers is one of the causes of death in postpartum mothers. There are several factors that influence the healing of perineal wounds in postpartum mothers, namely the characteristics of the mother giving birth, early mobilization, nutrition, type of wound, and how to care for it. There are many ways to treat perineal lacerations, for example with pharmacological and non-pharmacological treatment (Rukiah, 2011).

There are several factors that influence the healing of perineal wounds, including maternal education, food restrictions, type of suture, knowledge about perineal care, erpeneum care, re-prescription of medication and type of laceration. The most dominant factor is food abstinence. One thing that must be considered is the provision of counseling by midwives to improve wound healing, especially post-partum nutrition which can help wound healing to reduce maternal morbidity (Sulistianingsih and Wijayanti, 2019).

The research aims to see the difference in the effectiveness of healing perineal wounds using boiled water from binahong leaves and boiled water from red betel at TPMB Kiswari, Metro City.

## RESEARCH METHODS

This type of research is a quasi-experimental design with a non-equivalent control group design. The population of all postpartum mothers who experienced perineal tears and a sample of 12 people from each intervention group, were taken randomly from all mothers who experienced perineal tears during childbirth based on estimated delivery visits at TPMB Kiswari during the period May – July 2022 and calculated using the Formula method Lemeshow (Lemeshow, 1990). Where two sample groups were selected for initial measurements before the experimental treatment and after the experiment a final test was carried out but no randomization was carried out (Budiman, 2011). The treatment group was given a compress made from boiled binahong leaves, while the control group was given a compress made from boiled red betel leaves. The sample

determination was that respondents with odd serial numbers were respondents who were given red betel boiled water, then patients with even serial numbers were patients who were given binahong boiled water. Once determined, each respondent who was starting to enter the postpartum period was given 1 bottle (100 ml) of boiled water from binahong or red betel leaves according to the respondent's serial number given until the perineal laceration was dry. each respondent, then assessed when the perineal laceration would dry up for each respondent using the REEDA scale observation sheet which was developed by Davidson (1979) and tested for validity and reliability by Hill (1989). Data analysis used an independent t test to determine the difference in wound healing time between the duan binahong decoction group and the red betel leaf decoction group.

## RESEARCH RESULTS

Based on the results of data collection, the results obtained regarding the characteristics of respondents regarding the effectiveness of compresses from boiled binahong leaves and boiled red betel leaves on healing perineal wounds in postpartum women are as follows:

**Table 1**  
**Characteristics of Respondents Effectiveness of Binahong Leaf Boiled Compress and Decoction of Red Betel Leaves for Healing Perineal Wounds in Postpartum Women**

| Variable   | Amount | Percentage (%) |
|------------|--------|----------------|
| Education  |        |                |
| SD         | 1      | 4,2            |
| SMP        | 1      | 4,2            |
| SMA        | 18     | 75             |
| Diploma    | 1      | 4,2            |
| Sarjana    | 3      | 12,4           |
| Work       |        |                |
| Guru       | 1      | 4,2            |
| IRT        | 22     | 91,6           |
| Wiraswasta | 1      | 4,2            |

Based on characteristic data, it is known that the majority of mothers (75%) have a high school education, the majority of mothers' occupations (91.6%) are housewives..

**Table 2**

**Description of how long it takes for perineal lacerations to heal  
in the Compress Group with boiled water from binahong and red betel**

| Perineal lacerations take a long time to heal | Providing intervention |           | Amount |
|-----------------------------------------------|------------------------|-----------|--------|
|                                               | Binahong               | Red Betel |        |
| Minimum                                       | 3                      | 3         | 3      |
| Maximum                                       | 5                      | 8         | 8      |
| Mean                                          | 3.83                   | 5.83      | 4.83   |
| SD                                            | 0.718                  | 1.697     | 1.633  |

Based on the table, it can be seen that the average wound healing in the group of mothers who were compressed with binahong boiled water was faster, namely 3.83 days, while those who were compressed with boiled red betel water was 5.83 days.

Before carrying out the bivariate test, a data normality test was carried out. The results of the normality test showed that the data distribution was normal, so the statistical test used was the independent t test. Based on the results of the analysis using independent t test analysis, the result was a p value of 0.002, which means that there was a difference in the healing time for perineal lacerations between mothers who were compressed with boiled water from binahong leaves and water boiled with red betel, where compressing using boiled water from binahong was more effective than with water. Red betel decoction accelerates healing/drying of perineal lacerations.

## DISCUSSION

### Average Healing of Perineal Tears

The average healing rate for perineal wounds in the group of postpartum mothers who were compressed with boiled water from binahong leaves was 3.83 days. This result is faster compared to other studies, where the average healing of perineal wounds after compressing with binahong leaf water was 5-7 days (Narsih et al., 2019)(Indrayani et al., 2020). In a study that also compared the effectiveness of water boiled with binahong leaves with water boiled with betel leaves, it was found that the average wound recovery using water boiled with binahong leaves was 6.33 days, this figure is above the average in this study (Herliman et al., 2020)

The average healing rate for perineal wounds in the group of postpartum mothers who were compressed with boiled red betel water was 5.83 days. These results are almost the same as other studies which obtained an average result of healing perineal wounds using red betel compresses for 5.8 days (Rostika et al., 2020). This result is slower when compared to previous research which found an

average healing of perineal wounds using red betel for 3-4 days (Damarini et al., 2013)

### Differences in Healing Perineal Wounds with the use of binahong boiled water compresses and red betel boiled water

Based on the results of the independent t test statistical test, it was found that there was a difference in the healing time for perineal lacerations between post partum mothers who were compressed with binahong boiled water and red betel boiled water with a p value of 0.002. Healing of perineal lacerations was faster in post-partum mothers who were compressed with binahong boiled water compared to mothers who were compressed with red betel boiled water.

These results are in accordance with previous research which stated that using a binahong leaf compress was more effective in healing perineal lacerations than using a compress with boiled water from betel leaves with a p value of 0.000 (Herliman et al., 2020). Based on several studies, it is also known that duan binahong is effective in healing wounds, both perineal lacerations and surgical wounds, because binahong leaves contain antiseptics which can help speed up wound healing because they have the ability to kill germs and increase resistance to infection (Gusnimar et al., 2021; Liesmayani et al., 2021; S et al., 2022; Binahong is also very good for healing injured skin such as perineal wounds. This is supported by several previous studies both on postpartum mothers and trials that have been carried out on white mice 12,13). Binahong leaves contain flavonoids, which are responsible for anti-inflammatory mechanisms, also inhibit free radical activity, and increase the speed of tissue epithelialization. Apart from that, the ascorbic acid content in this substance will help the formation of collagen, by aggregating and activating platelets caused by exposure to fibrillary collagen immediately after the wound occurs and starting the wound healing process by releasing chemotactic factors (Ariani et al., 2014; Yuliana et al., 2020)

Based on the results of this study, researchers assume that compresses with boiled

water from binahong leaves are effective in healing perineal lacerations because of the various chemical substances contained in binahong leaves. These chemical contents include phenolics as antimicrobials, saponins as antioxidants and alkaloid compounds as pain relievers (Tjahjani & Yusniawati, 2017) and flavonoids which function as anti-inflammatory (Ariani et al., 2014).

A wound is a condition where tissue continuity is damaged caused by trauma from sharp or blunt objects, changes in temperature, chemistry, electricity, radiation, or animal bites. The body will try to repair damaged tissue through wound healing mechanisms in response to tissue damage. Treatment with antibiotics and antiseptics to speed up the healing process of perineal wounds currently tends to be avoided because several types of antibiotics need to be avoided during the breastfeeding period. This can be a reason for using traditional (non-pharmacological) medicine (Elisabet, 2017). One effort to help heal wounds can be using binahong leaves. As a wound medicine, binahong contains several chemical ingredients, namely flavonoids, oleanolic acid, protein, saponins and ascorbic acid. The ascorbic acid content in this plant is important for activating the prolyl hydroxylase enzyme which supports the hydroxylation stage in collagen formation, so that it can speed up the wound healing process (Yuliana et al., 2020).

Treatment of perineal lacerations in postpartum mothers caused by episiotomies or lacerations generally takes 6-7 days to heal. Proper wound care can speed up the wound healing process. The principle of treating perineal lacerations is to use aseptic techniques, treatment is carried out while bathing, after urinating and defecating (Puspita I.M., 2022). In this study, treatment of perineal lacerations was carried out at least twice a day, namely after bathing, the mother applied compresses to the lacerations using boiled binahong or red betel liquid for approximately 15 minutes. If the mother urinates or defecates, the mother continues to care for the perineum to maintain aseptic technique. The final results showed that the healing of perineal lacerations, for both postpartum mothers who were compressed with binahong boiled water and red betel, showed that the wounds healed on average before 6 days (3.83 days in the binahong boiled water group and 5.83 days in the boiled water group red betel).

## CONCLUSION

The use of binahong compresses is more effective than compresses made from boiled red betel water in healing perineal lacerations

## SUGGESTION

It is recommended that independent practicing midwives start using non-pharmacological therapy in healing perineal lacerations, especially using binahong boiled water compresses.

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