

**THE EFFECTIVENESS OF RED BETEL LEAVES ON HEALING
PERINEAL WOUNDS AT THE KENANGAN HEALTH CENTER
DELISERDANG REGENCY
YEAR 2022**

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ABSTRACT

The use of betel leaves can accelerate the healing of perinium wounds, there is a significant difference in the healing time of perimetry wounds between the experimental and control groups. Based on these results, it can be said that the use of betel leaves is effective in accelerating the healing of periamium wounds. The effectiveness of red betel leaf in the treatment of perineal wounds can be concluded that the average healing time of perineal wounds using red betel leaf infusion is 3-4 days, while the average healing time using iodine is 5-6 days. This means that the treatment of perineal wounds in postpartum mothers is more effective using red betel infusion than iodine. This type of research is a Quasi experiment (pseudo-experiment) research using a quantitative approach that aims to explain, test the relationship between variables and to find the effectiveness of red betel leaf on the healing of perineal wounds. The research design that the author will use in this study is a Pretest-posttest design using two research groups (One Group Pretest-posttest Design). The development is by means of one measurement in front (pretest) before the treatment and after that another measurement is carried out (post-test). The initial measurement provides a pre-test using the observation method to see directly how wide the birth canal wound is. It is known that of the 19 respondents, the majority of respondents are in the age group of 19 years - 30 years, namely as many as 17 respondents (89.5%) and 2 respondents (10.5%) in the age group of 31 years - 45 years.

Keywords: betel leaf, healing perineal wounds

INTRODUCTION

Perineal treatment in postpartum mothers is best done in the bathroom with the mother in a squatting position, if the mother is able to stand then the treatment can be done with the legs open. How to treat perineal wounds is to wash your hands on the tap or running water with soap then remove the pads from the face to the back to avoid spreading bacteria from the anus to the vagina, after that drain or rinse with warm water or antiseptic liquid to the erineum area after urinating or defecating, dry with a towel and do not hold the area before recovering, Itching in normal sutures, is a sign of healing. However, to relieve the unpleasant taste, overcome it by soaking in warm or cold water using a towel (Rukiyah, 2013). Then lie down on your sides, avoid standing or sitting for long periods of time to reduce pressure on the area, change sanitary napkins that are clean for 4-6 hours or at least 4 times a day. Place it well so that it does not shift (Rukiyah, 2013).

According to the results of a study conducted by juliantina et al. 2010 stated that ethanol extract of red betel leaf (*piper crocatum*) at a concentration of 25% can inhibit the growth of gram-positive bacteria (*Staphylococcus aureus*) and at a concentration of 6.25% can inhibit the growth and kill gram-negative bacteria (*Escherichia coli*) and ethanol extract of red betel leaf can reduce physiological symptoms of vaginal discharge which one of the causes is *Staphylococcus aureus* bacteria (Zubaer, 2010). The active content of the red betel plant has not been studied in detail. From the chromatogram results, it is known that red betel leaves contain

flavonoids, plevenolad compounds, tannins and oils atsiri (Sudewo, 2010). Flavonoids are polyphenolic compounds that have 15 carbon atoms, consisting of two benzene rings connected together by a linear chain consisting of three carbon atoms. Flavonoid compounds are actually found in all parts of the plant including leaves, roots, wood, bark, pollen, flowers, fruits, and seeds. Most of these flavonoids are in plants, except algae. Flavonoids function as antibacterial by forming complex compounds against extracellular proteins that interfere with the integrity of bacterial cell membranes⁴ (Doloksaribu, 2011).

The effectiveness of red betel leaf in the treatment of perineal wounds can be concluded that the average healing time of perineal wounds using red betel leaf infusion is 3-4 days, while the average healing time using iodine is 5-6 days. This means that the treatment of perineal wounds in postpartum mothers is more effective using red betel infusion than iodine.

METHOD

3.1 Types of Research

This type of research is a quasi-experimental research using a quantitative approach that aims to explained, to test the relationship between variables and to find the effectiveness of red betel leaves on the healing of perineal wounds.

The research design that the author will use in this study is rancangan Pretest-posttest using two research groups (One Group Pretest-posttest Design). The development

is by means of one measurement in front (pretest) before the treatment and after that another measurement is carried out (post-test). The initial measurement provides a pre-test using the observation method to see directly how wide the birth canal wound is.

3.2 Location and time of research

3.2.1 Research Location

This research was carried out at the Kenangan Health Center, Deli Serdang Regency.

3.2.2 Research Time

This research was carried out in April 2022.

3.3 Population and sample

3.3.1 Population

The population in this study is all postpartum mothers at the Kenangan Health Center, Deli Serdang Regency with a total of 20 people.

3.3.2 Samples

The sampling technique is carried out by purposive sampling by taking samples that have criteria including,

1. Inclusion Criteria
 - Postpartum mothers with perineal lesions of the first to third degree
 - Postpartum mothers with a body weight of 45 to 65 kg
 - Mothers are willing to be respondents
2. Exclusion Data
 - Postpartum mothers with fourth-degree perineal wounds
 - Post partum mom with a bad weight > 65 Kg

- Mom is not willing to be a respondent

Rumus purposive sampling

n= Number of samples

N= Number of population

e= Tolerance limit

$$\text{Population} = 20 \text{ people} \quad = 20$$

$$e = 5\% \text{ or } 0.05 \quad 1 + 20 \cdot 0.052$$

$$n = ? \quad = 20$$

$$1 + (20 \times 0.0025)$$

$$= 20$$

$$1 + 0,05$$

$$= 20$$

$$1,05$$

$$= 19$$

The data was obtained through a formula by calculating the size of the population in which the number of samples was 19 people.

RESULT AND DISCUSSION

4.1 Univariate results

From the results of the data research obtained based on filling out a questionnaire for 19 respondents regarding the Effectiveness of Red Betel Leaves on the Healing of Perineal Wounds at the Kenangan Health Center, Deli Serdang Regency in 2022, the following results were obtained :

Table 4.1.1 Perineal Wound Healing Process (cm)

Diameter Luka_H1 _Pretes	Diameter Luka_H7 _Postes
2.5	1.2
2.3	1.1
1.5	0.3
1.5	0.5
1.2	0.2
1.3	0.2
2.2	0.8
2.3	0.7
1.4	0.4
1.3	0.2
0.9	0.1
1.1	0.2
3.5	2.2
1.5	3.0
1.3	0.2
1.8	0.8
1.4	0.2
1.9	0.7
1.3	0.1

From table 4.5 above, it is known that from 19 respondents it can be known that All respondents experienced healing of perineal wounds.

Tabel 4.1.2 Average Frequency of Pre test and Post test Giving betel leaves

Wound Healing Effectiveness		Mean + 2 SD
Pretest	0.62758	2,62750
Postes	0.7629	2,76296

Based on the table above, it can be seen that the standard of preparation in the pretest is 2.62750 while the standard of definition in the post test is 2.76296, so there is a difference in the effect of treatment in the administration of red betel leaves for the healing of perineal wounds at the Memories Health Center, Deli Serdang Regency in 2022

4.2 Discussion

From the results of research that has been carried out by researchers, about the Effectiveness of Red Betel Leaves on Perineal Wound Healing at the Kenangan Health Center of Deli Serdang Regency in 2022, the discussion can be seen below.

A. Age

Based on the results of research at the Memories Health Center, Deli Serdang Regency 2022 that of the 19 respondents, the majority of respondents were in the age group of 19 years - 30 years, namely 17 respondents (89.5%) and 2 respondents (10.5%) in the age group of 31 years - 45 years.

B. Occupation

Based on the results of research at the Kenangan Health Center in Deli Serdang Regency in 2022, it was obtained that of the 19 respondents, the majority of respondents worked as IRTs, namely 17 respondents (89.5%) and a minority of respondents worked as civil servants, namely 2 respondents (10.5%).

C. Education

Based on the results of research at the Memories Health Center of Deli Serdang Regency in 2022, it was found that of the 19 respondents, it can be known that the education of the respondents is the highest in respondents who graduated from secondary education (SMA/SMK) as many as 14 respondents (73.7%), 3 respondents (15.8%) who graduated from primary education (SD/SMP), and a minority of respondents who graduated from higher education (D3/S1) as many as 2 respondents (10.5%).

D. Number of Children

Based on the results of research at the Memories Health Center of Deli Serdang Regency in 2022, it can be known that of the 19 respondents, the most respondents are mothers who have 2-3 children, as many as 13 respondents (68.4%), and the smallest mothers who have 1 child, which is 6 respondents (31.6%).

4.2.1 Effect of Betel Leaf Feeding on Perineal Wounds

The Effect of Giving Betel Leaves on Postpartum Mothers is one of the plants that has so many benefits and is often used as herbal ingredients in health, among them is for the healing of perineal wounds. Betel plants have a variety of species, including ivory betel, black betel, yellow betel, green betel and red betel. Betel leaves that are usually used for feminine problems are green betel leaves (*piper betle*. l) and red betel leaves (*piper crocatum*) (Elshabrina, 2019).

In research that has been carried out by Susilo Damarini, Eliana, Mariati said that the infection case occurred due to *Streptococcus aureus* germs which were initially pathogenic, but there was a wound in the perineal area caused by a tear in the episiotomy process, *Streptococcus aureus* has great potential to cause infection in the birth canal, the biochemical elements contained in betel leaves have the power to kill germs and bacteria, It is also an antioxidant that accelerates the wound healing process because it contains essential oils, hydroxyavicol, cavicol, cavibetol, alilprocatechol, carvacrol, eugenol, cineole, terpenes, cariofelen, cadence estragol, p-cymene, tannins and phenyl propada. Carvakrol is a disinfectant and antifungal so it is used as an antiseptic drug. (Andareto, 2019).

Perineal wounds, if not properly cared for and improper perineal care, can result in perineal conditions affected by damp locea will greatly support the proliferation of bacteria that can cause infections in the perineum. The appearance of infection in the perineum can spread to

bladder tract and infections in the birth canal. Infections are not only inhibits the wound healing process but can also cause damage to cell tissue (Prawirohardjo, 2020).

CONCLUSION

Based on the results of data analysis and discussion on the Effectiveness of Red Betel Leaves on Healing Perineal Wounds at the Kenangan Health Center of Deli Serdang Regency in 2022, the following conclusions can be drawn:

1. The average result was obtained in the pretest of 1.6947 and in the postes of 0.6895. Where there is the Effectiveness of Red Betel Leaves on Perineal Wound Healing at the Memories Health Center, Deli Serdang Regency in 2022.
2. Using the T Test, it is known that in mothers who experience postpartum and who have perineal wounds, it can be concluded that the use of red betel leaves pre-test and post-test with a sample of 19 respondents obtained a significant value of (0.007) ($p < 0.05$), then H_0 is rejected H_a is accepted, which means that there is an influence of pre-test and post-test on the use of red betel leaves in the healing of perineal wounds at the Memories Health Center, Deli Serdang Regency in 2022.
3. The results of statistical tests show that Red Betel Leaves are Effective in Healing Perineal Wounds at the Kenangan Health Center, Deli Serdang Regency in 2022.

REFERENCES

- Ambarwati, E. R. and Wulandari. D. 2010. *Postpartum Midwifery Care*. Yogyakarta: Nuha Medika.
- Anas, R et al. 2018. *Difference in Inhibition Between Red Sirrh Leaf Extract (Piper Crocatum) And Green Betel Leaf Extract (Piper Betle L.) Against Streptococcus mutants bacteria (Experimental Study of Microbiology Laboratory, Faculty of Pharmacy, Umi 2016)*: Faculty of Dentistry, Muslim University of Indonesia: Makassar
- Andareto, O. 2015. *Herbal Pharmacies Near You*, Universal Science Library Banda Aceh: U'budiyah College of Health Sciences
- Ceuruh Kupula, Delima District, Pidie Regency, *Journal*. Banda Aceh, Stikes Ubudiyah Banda Aceh
- Doloksaribu, R. (2009). *Isolation of flavonoid compounds from leaves of the Harimonting plant*. Medan: University of North Sumatra.
- Elshabrina. 2013. *The Greatness of Medicinal Leaves All Time*. Yogyakarta: CV.
- Fitri, E. 2013. *Factors Affecting the Length of Wound Healing*
- Gunawan et al. 2015. *Effect of Leaf Extract Administration*

- Betel (Piper Sp.) Against the growth of Candida albicans fungus.* Proceedings of the National Seminar on Biology. Faculty Terbiyah and Teacher Training of Uin Ar-Raniry
- Harman, D.T.A. 2013. Anti-Bacterial Effectiveness of Betel Leaf Extract (*Piper betle* Hasanuddin Maqsar. 61 Halaman.
- Kustanti, Ceciliya. 2017. *Effect of Green Betel Leaf Decoction on the Incidence of Vaginal Discharge.* Yogyakarta: Notokusumo Nursing Linn.) against *Enterococcus faecalis* bacteria. Thesis. University
- Lockhart, Anita. 2014. *Midwifery Care for the Physiological and Pathological Postpartum Period*, Jakarta: Bina Rupa Aksara.
- Ma'arifah. 2014. *The Relationship between Perineal Wound Care in Postpartum Mothers and the Healing Time of Perineal Suture Wounds in Postpartum Mothers.* BPM Sanadah. SST Mojogeneng
- Manuaba. 2010. *Obstetrics, Obstetrics, Obstetrics, Diseases and Family Planning.* Jakarta: EGC
- Mochtar, R. 2012. *Synopsis of Obstetrics, Physiology and Pathology.* Jakarta : EGC.
- Nugroho, T. 2012. *Obstetric Pathology.* Yogyakarta: Nuha Medika
- Oxorn, H. 2010. *Pathology & Physiology of Childbirth.* Yogyakarta: Yayaz is Essentia Medica (Yem)
- Perineum in postpartum mothers at dr. Zainoel Abidin General Hospital.*
- Rasyad, E M. 1995. *Comparative Study of the Effects of Infusion and betel decoction against the growth of candida albicans.* Postgraduate Program of Airlangga University, Surabaya.
- Rosmawar, C. 2013. Factors Associated with Early Marriage in Women in Villages
- Rukiyah, A. Y. et al. 2013. *Obstetric Care IV (Obstetric Pathology).* Jakarta: Trans Info Medika
- Rukiyah, A.Y. dkk. 2010. *Asuhan Kebidanan III (Nifas).* Jakarta: Trans Info Medika
- Saifuddin. 2012. *National Reference Book for Maternal and Neonatal Health Services.* Jakarta: Bina Pustaka Sarwono Prawirohardjo Foundation
- Sari, E. 2012. *Postpartum Midwifery Care.* Jakarta: TEAM
- Sudewo, B. 2010. *eradicate diseases with red betel.* Jakarta: Argomedia Pustaka
- Sulistiyowati, & Amalia, A. (2016). *Differences in the Effectiveness of the Use of Betel Leaves and Garlic*

- Syafrudin, et al. 2011. *KIA (Maternal and Child Health) Counseling*. Jakarta : CV. Trans Info Media
- Walyani, E. 2016. *Midwifery Care for Postpartum and Breastfeeding*.

Edition I. Yogyakarta: PT. New Library

Walyani, E. S. 2017. *Midwifery Care in Pregnancy*. Yogyakarta: Barupess Library

Wiknjosastro, H. 2011. *Ilmu Kebidanan*. Jakarta : Yayasan Bina Pustaka Prawirohardjo

Wiknjosastro, H. 2014. *Ilmu Kebidanan*. Jakarta : Yayasan Bina Pustaka Prawirohardjo.

Zubier F. et al., 2010. *The efficacy of red betel extract soap in reducing physiological vaginal discharge symptoms*. Indonesian Medical Magazine.