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EFFECTIVENESS OF DECOCTION OF PIPER BETLE L. LEAVES IN PREVENTING PERINEAL WOUND INFECTION IN POST-PARTUM AT POLINDES WARI 2025

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Background : Postpartum period is phase critically vulnerable to occurrence infection perineal wounds due to decline Power stand body mother and limitations maintenance optimal wound . Boiled water leaf betel green (*Piper betle* L.) which contains compound antibacterial , antiseptic , and anti-inflammatory potential effective in prevent infection perineal wounds , so that need analyzed in a way scientific through study For prove benefits for mothers postpartum **Research Method :** This type of research uses. One group pretest design and observation were made through pretest first, then given treatment, then given a posttest so that it can find out the changes that occur before and after giving treatment **Research Results :** Based statistical test results p value $0.000 < \alpha (0.05)$ can concluded that There is significant difference in prevention infection perineal wound between group experiments and groups *control* with average difference 4.3333. **Conclusion :** Giving boiled water leaf betel green proven effective in prevent infection perineal wounds in mothers postpartum . Intervention This can made into alternative maintenance safe , easy , and wound - based material experience .

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PRELIMINARY

Healing perineal wounds in mothers postpartum is part crucial from the recovery process after giving birth. Postpartum period or postpartum is phase important thing that marks return condition physiological, emotional, and anatomical Mother in a way gradually going to normal conditions.

At this time, the reproductive organs Mother in a way slowly return going to condition before pregnancy, concurrently with the adaptation process to change physique consequence labor as well as demands role new in nurse baby. On the other hand, perineal trauma is good in the form of laceration spontaneous and consequence episiotomy be one of most frequent complications found in the postpartum period.¹

According to data from the World Health Organization (WHO) in 2019, almost 90% of births were carried out normally experience tear in the perineum in a way impulsive and episiotomy. Cases of perineal tears occur worldwide nearly 2.7 million in mothers childbirth. Perineal lacerations episiotomy with maintenance less wound Good as well as condition moisture caused Because existence expenditure lochia is something place or good media for development germs that become reason condition postpartum infection.²

Perineal tears are risky experience infection if Mother own lack of knowledge about perineal care. Risks the can increase consequence behavior care that is not right, like No wash hand before cleaning the genital area, no dry the genital area after urination and defecate, as well as error in method cleaning (cleaning) as it should be done from direction front to back . Condition This can bother

cleanliness personal hygiene, especially in perineal wounds, and is aggravated with existence decline Power stand body Mother after the delivery process.³

In Indonesia, the leaves betel Green (*Piper betle*) has long been used in treatment traditional, especially in maintenance health women, including maintenance area femininity and wounds postpartum. Utilization leaf betel in study health show that content antiseptic, antibacterial, and anti-inflammatory potential lower risk infection as well as speed up the healing process perineal wounds, so that relevant For reviewed as intervention supporters in maintenance postpartum mothers.⁴

Betel leaf green contain compound active like oil essential oils (chavicol and chavibetol) which have characteristic antiseptic, as well as compound phenolics and phytochemicals can oppose infection bacteria. In addition, the compound This help reduce stress oxidative, which play a role important in speed up wound healing.⁵

Based on phenomena that occur, efforts prevention infection in the mother postpartum consequence perineal wounds need get attention special. With consider various benefit leaf betel green (*Piper crocatum*), known own characteristic antibiotics and antiseptics experience as well as is plant easy local found, especially in the Regency North Halmahera, researcher interested For do something study with Title: "Effectiveness of Green *Betel* Leaf *Decoction* (*Piper Betle* L. Leaves) in Preventing Perineal Wound Infection in Postpartum Mothers at the Wari Village Health Center in 2025

METHOD

Study This is studies experimental with design quasi-experimental with test pre-post. Research objectives This is For analyze influence Green *Betel* Leaf Decoction (*Piper Betle L. Leaves*) for Prevention Perineal Wound Infection in Postpartum Mothers at the Wari 2025 Village Health Center, District Central Tobelo, North Halmahera Regency. Group intervention in study This is patients who will undergo procedure intervention with Green *Betel* Leaf Decoction (*Piper Betle L. Leaves*).

Study This conducted at Polindes Wari, District Tobelo, North Halmahera Regency, from June to August 2025. Total population in study This is 20 postpartum mothers. Size sample For study This are 20 postpartum mothers who fulfill it criteria inclusion.

RESULTS

Univariate analysis

Analysis univariate is distribution frequency incident prevention infection healing wound maternal *perineum* postpartum in groups intervention, obtained the results are presented in the following table This:

Table 1. Distribution Frequency incident prevention infection wound maternal *perineum* postpartum in groups intervention

	Category	Pretest		Posttest	
		Frequency	(%)	Frequency	(%)
1	Healthy Network Wound Regenerati	0	0	20	100%
2	on	20	100	0	0%

Wound Degenerati					
3	on	0	0	0	0%
Total		20	100	20	100

From the results study obtained that incident healing maternal perineal wound postpartum in groups intervention, with results of the pretest from 20 respondents No There is respondents who have network healthy and degenerative wound .

Table 2. Distribution incident prevention infection as well as healing wound *perineum* Mother postpartum in groups control

Category	Pretest		Posttest	
	Frequency	(%)	Frequency	(%)
1 Healthy Network	0	0	10	50 %
2 Wound Regeneratio n	20	0	10	50 %
3 Wound Degeneratio n	0	0	0	0%
Total	20	100	20	100

Based on Table 2, the incident prevention infection maternal perineal wound postpartum in groups control, with results at the time *pretest* from 20 respondents No There is respondents who have network healthy and degenerative wound. However, at the time *posttest* obtained the results that have been own network healthy as many as 10 respondents (50%) and those who are still experience regeneration wound

Bivariate Analysis

Table 3. Influence stew leaf betel to prevention infection wound *perineum* in postpartum mothers in the group interventions and groups control

Group	n	Median (minimum maximum)	Mean SD	Std. Deviation
Experiment Pretest	20	15.00- 16.00	15,4667	0.51640
Posttest Experiment	20	9.00- 10.00	9,4000	0.50709
Pretest Control	20	15.00- 17.00	15,8000	0.86189
Posttest Control	20	13.00- 14.00	13,7333	0.45774

Based on Table 3 , it is obtained average results of perineal wounds in *the pretest* experiment is 15.4667 with standard deviation 0.51640 and average wound results perineal healing in *posttest* experiment is 9,4000 with standard deviation 0.50709. Meanwhile in the group control obtained average results of perineal wounds in *the pretest control* is 15,8000 with standard deviation 0.86189 and average wound results perineal healing in *posttest control* is 13.7333 with standard 0.45774

Then normality test was carried out obtained data results are not normally distributed. Then the researcher using other alternatives, namely use *Mann Whitney test* .

Table 3. Mann-Whitney Test Statistics ^a

	Bjwat Results
Mann-Whitney University	.000
Wilcoxon W	120,000
Z	-4,827
Asymp . Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^b

Table 3. From the results of *statistical* tests obtained mark *p-value* $0.000 < 0.05$ then can concluded that H_0 is rejected while H_a is accepted which means that there is significant difference in average prevention infection perineal wound after done maintenance perineal wounds with personal hygiene stew leaf betel in groups experiments and groups control that is not given stew leaf betel green.

DISCUSSION

From the results study obtained that incident prevention infection maternal perineal wound postpartum in groups intervention, with results of the pretest from 20 respondents No There is respondents who have network healthy and degenerative wounds. However, during the posttest, it was found all respondents has own network Healthy after maternal perineal wound postpartum given stew leaf betel.

This is proven that with giving stew leaf betel leaf for prevention infection wound *perineum* in postpartum mothers can speed up unification network *perineum* . Because of the decoction leaf betel contain various supportive nutrition health body, start from iodine, vitamin A, potassium, vitamin B1, B2, and *acid nicotinate*. In addition, the leaves betel also contains oil *essential oils* Work with help oppose infection that appears Because bacteria. In addition, there are also *phenolic* and *phytochemicals*, compounds active that can oppose gram positive and negative bacteria, sugar, starch, *phenyl propane*, *terpennene*, *estragol* And *kavicol*. betel own characteristic antidiabetic, antioxidant and antimicrobial.^{6,9,10}

The result, after 7 days use betel, wound experience significant improvement.

This herbal plant Work with lower stress *oxidative* in body that affects the wound healing process.⁹

Maintenance perineal wounds with stew leaf betel can started after 2 hours *post* normal delivery with method *vulva hygiene* twice a day. Oil essential oils contained in leaf betel, including *chavicol* and *chavibetol* that is compounds that have properties *antiseptic* can hinder growth bacteria in wounds.⁶

Based on statistical test results obtained existence effectiveness given stew leaf betel leaf on perineal wounds in mothers postpartum period at the village health post wari subdistrict tobelo 2025 with p value $0.000 < \alpha (0.05)$.

CONCLUSION

1. In the group experiment after given stew leaf betel For prevention infection on maternal perineal wound postpartum, with results at the time *pretest* from 20 respondents No There is respondents who have network healthy and degenerative wounds . However, during the *posttest*, it was found all respondents has own network Healthy.
2. In the group *control* that is not given stew leaf betel For prevention infection maternal perineal wound postpartum, with results at the time *pretest* of 20 respondents No There is respondents who have network healthy and degenerative wounds. However, during the *posttest*, it was found the results that have been own network Healthy as many as 10 respondents (50%) and still experience regeneration wound as many as 10 respondents (50%).

3. Based on statistical test results p value $0.000 < \alpha (0.05)$ can concluded that There is significant difference in prevention infection perineal wound between group experiments and groups *control* with the average difference is 4.3333. So use stew leaf betel leaf in healing as well as prevention infection more perineal wounds effective compared to without use stew leaf betel leaf for prevention infection or healing perineal wounds in mothers postpartum at the Wari Village Health Center.

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