

# Potency moringa oleifera on perineal wound healing

Yulia Fitri<sup>1</sup> Putri Santy<sup>2</sup>

<sup>1,2</sup>Department of Midwifery Poltekkes Kemenkes Aceh

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## ABSTRACT

Complications perineal wound can cause morbidity on significant mother including painful chronic, infection, shame, depression, loss function sexual and in condition more heavy cause incontinence defecate. Moringa Oleifera contain compound stimulating phytochemicals healing wound. This study aims to determine influence gift capsule *Moringa oleifera* on healing time mother's perineal wound childbirth. Design used is Quasi Experimental with nonrandomized pretest-posttest design. The research sample is 30 mothers childbirth (15 case groups and 15 control groups). Giving capsule Moringa 500 mg/day for 10 days. Measurement healing wound done 2 times ie day to 3 and day to 5 post partum with use REEDA scale. Data analysis using the T test. The results of the study showed the provision of capsules Moringa 500 mg for 5 days post partum significantly accelerated healing wound perineum (P=0.00). Moringa can accelerate healing post perineal wound childbirth. Further research is needed regarding about content potential compound active especially those who play a role in healing wound.

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### Corresponding Author:

Yulia Fitri,  
Department of Midwifery,  
Ministry of Health Polytechnic aceh,  
Banda Aceh, Indonesia  
Email: fitriyulia@gmail.com

## INTRODUCTION

Number incident current perineal injury labor vaginal Still Enough high, reaching 53-79% [1]. Several factors increase risk development perineal lacerations among other things increase heavy body birth, use of episiotomy and augmentation labor (Pergialiotis et al., 2020). Agreed that wound I must healed in time four Sunday (Frykberg & Banks, 2015), more from time such, shows exists delay healing wound (Lewicky-Gaupp et al., 2015) which can indicate exists complications. Infection data And dehiscence associated perineal wounds labor part big Still Not yet is known And Not yet get attention special (Jones et al., 2019) whereas, Complications perineal wound can cause morbidity on significant mother including painful chronic, infection, shame, depression, loss function sexual and in condition more heavy cause incontinence moment poop [4].

Study on woman with infection post perineal wound labor show, after dehiscence process, perineum wound need average time 4 weeks Then For healed [6]. Experienced woman complications wound have more pain significant than woman with normal healing, and pain increase. This endure up to 12 weeks postpartum (Lewicky-Gaupp et al., 2015). Healing process wound involve coordinated interactions between molecule And resulting cells inflammation, epithelialization repeat, formation network and remodeling (Broughton et al., 2006) Healing

wound need good oxygenation for phosphorylation oxidative , respiration leukocytes And synthesis collagen . Healing wound is an anabolic process with enhancement need metabolism so that need proper nutrition [8] .

In the last few decades , have appear a number of known plants own molecule active potential biologics very good in healing wound . Moringa oleifera is nutrient rich plants , family Moringaceae Where is known whole part from plant This that is leaves , stems , roots , flowers , and the seeds , have function nutraceuticals or pharmacological as anti-inflammatory , antioxidant , anticancer , hypoglycemic , and lower lipid profile [9] .

Moringa oleifera (M. oleifera ) contains compound stimulating phytochemicals healing wound (Mohammad Shafie et al., 2022) Healing This especially associated with compound contained polyphenols in plant This [11] . On skin , Moringa give effect protection against epidermal oxidative stress and by mediated ultra violet radiation through enhancement defense antioxidant and PPAR activation in keratinocytes skin (Zhou et al., 2018) Moringa aloivera have . activity very antibacterial strong And durable against bacteria pathogen infection wound so that increase mechanism repair skin And Possible give very potential Good For maintenance skin , especially in healing wound [13] . Therefore, this study aims to find out influence gift K capsule Moringa ( *Moringa oleifera* ) on healing time mother's perineal wound childbirth .

## RESEARCH METHOD

This research is a quasi- experimental research by design nonrandomized pre-post control. Calculation of the number of samples using the formula for the proportion of two populations obtained results of 15 people on group case and 15 people on control group . Total \_ sample totaling 30 mothers childbirth . Sampling technique using purposive sampling technique with inclusion criteria : mother childbirth aged 20-35 years , have history labor vaginal with grade 2 and 3 perineal rupture, no consume drugs traditional except Fe tablets . Exclusion criteria: mother childbirth with severe anemia , diabetes mellitus, disorders freezing blood And disease infection certain.

The data collection technique was in the form of an assessment of perineal wound healing with the REEDA scale. The data collection instrument used is sheet observation observation healing wound .screening done on beginning research , followed by a review of medical history. On group cases , given tablets fed and powder Moringa is given in capsule form with weight 500 mg after breakfast Morning for 10 days in post partum. whereas on the control group was given Fe tablets without addition moringa .

Observation healing wound use REEDA scale on day 3rd and 5th post partum. Results measurement written down into the sheet observation . The research was conducted in the working area of the Darul Public Health Center Greater Aceh Emirate . Data analysis was performed by T-test.

## RESULTS AND DISCUSSIONS

**Table 1.** Measurement Time Perineal Wound Healing Postpartum Women

No	Variable	Z	P Value
1	REEDA ( Case )	-3,535	0.0 0*
2	REEDA ( Control )	-3,493	0.0 0*

Table 1 above show there is meaningful difference statistically on measurement ever time healing wound Good on group case, as well on control group .

**Table 2.** Influence gift Capsule Old Moringa Wound Healing Perinium Postpartum Women

No	Variable	Means	P Value
1	REEDA score day 3		0.84*
	Case	2.67	
2	REEDA score day 5		0.00*
	Case	0.27	
	Control	2.60	
	Control	0.93	

\*Independent T Test

From table 2 above can seen on measurement day 3rd time time healing wound with use the REEDA scale was obtained average score REEDA scale on group case tend more tall compared the control group is 2.67 and 2.60. whereas on measurement day to 5, average score REEDA scale on group case tend more low compared to control group with value 0.27 and 0.93 . And after done statistical test , obtained P value < 0.05 . Results This show that healing wound on group given mother capsule moringa more fast in a manner significant compared to group that doesn't given . On moment measurement day to 3, second group new given intervention for 2 days . this also ensure that difference time healing that occurs on measurement furthermore on group case , no Because as it happens only However Because possibility big is Because interventions carried out.

Decline REEDA score shows recovery growing wound getting better from day day . The total score on the REEDA scale is in the range of 0-15, which indicates that the higher the score, the weaker or slower the wound healing [14] .

Moringa own composition These include calcium, potassium, iron, vitamin A, vitamin B, vitamin C and protein digested body with easy . It has iron 25 times higher than spinach (laiskodat). Besides that , Moringa it is also rich in essential amino acids, minerals, and polyphenols . while the phytochemical content possessed plant This including flavonoids . , oil volatiles , anthraquinones , isothiocyanates , terpenoids , anthocyanins, alkaloids, saponins, steroids, , , tannic acid, terpenoids [15] .

M. oleifera own ability gather Collagen , the most important protein For recovery wound (Herman & Herman, 2020) Enhancement content collagen Also correlated with enhancement content hydroxyproline , which accelerates healing wound (Lambole & Kumar, 2012) Accumulation collagen Also influenced produced by the minerals and vitamins plant . Element copper on M. oleifera leaves has reported involved direct in synthesis collagen , meanwhile substance iron is cofactor . Stability And strength on network given by vitamins C and A with create bond fiber collagen , besides it's Vitamin A too involved in proliferation cell epithelium [18] (Aaliya Ali , Prakrati Garg , Rohit Goyal , Gurjot Kaur, Xiangkai Li , Poonam Negi , Martin Valis, 2020)

## CONCLUSION

Giving capsule Moringa 500 mg/day for 7 days can speed up healing perineal wound . Furthermore need done study about content potential compound active in plant presented moringa \_ in form preparations besides capsule And powder so that can utilized as alternative therapy for healing wound .

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