Oshada; Jurnal Kesehatan
https://nawalaeducation.com/index.php/O/index
Volume 2 Nomor 1, February 2025
e-ISSN : 3047-017X
DOI : https://doi.org/10.62872/81g8qz14

The Effect of Aloe Vera on Perineal Wound Healing in Postpartum Mothers at PMB A Jatisampurna Bekasi in 2024

Desy Qomarasari[1]✉, Anita Wulandari[2]

Kebidanan, Politeknik Tiara Bunda[1,2]

e-mail: * desy.qomarasari@gmail.com [1]

Input	: January 05, 2025	Revised	: January 18, 2025
Accepted	: February 05, 2025	Published	: February 28, 2025

ABSTRACT

In 2020, of a total of 1,951 spontaneous vaginal births, 57% of mothers received perineal sutures, 28% due to episiotomy and 29% due to spontaneous tears. Aloe vera is a plant that has been used to treat various diseases since ancient times. Aloe vera also contains polysaccharides that stimulate wound healing and new skin growth. To determine the effect of aloe vera on healing perineal wounds in postpartum mothers at PMB A Jatisampurna Bekasi in 2024. This research uses a two group pretest and posttest design. The sample in this study was postpartum mothers who experienced perineal wounds, totaling 30 people. Sampling used total sampling. The research instrument uses an observation sheet. Data analysis used univariate and bivariate analysis using sample t test. Of the 30 respondents, based on the results of univariate analysis, the majority of respondents were aged 20-35 years (90%), had a high school education (50%), and working mothers (60%). Bivariate analysis showed that there was an effect of aloe vera on perineal wound healing in postpartum women (p value 0.000). There is an effect of aloe vera on healing perineal wounds in postpartum mothers.

Keywords: Aloe Vera, Perineal Wounds, Episiotomy, Spontaneous tears, Spontaneous vaginal births

INTRODUCTION

Perineal rupture is a cause of postpartum maternal bleeding. Postpartum hemorrhage is the leading cause of 40% of maternal deaths in Indonesia. In Australia, 20,000 mothers experience perineal rupture during childbirth. In Asia, perineal rupture is a significant issue, with 50% of cases worldwide occurring in Asia. In 2020, out of a total of 1,951 spontaneous vaginal births, 57% of mothers received perineal sutures, 28% due to episiotomy, and 29% due to spontaneous tears (Ministry of Health, 2021).

Perineal tears are obstetric injuries that occur in the perineal area due to the inability of pelvic muscles and soft tissues to accommodate fetal birth.

Childbirth often causes injuries to the birth canal. Aloe vera can enhance wound healing and reduce pain due to its flavonoid and tannin content, which helps the inflammatory process and accelerates granulation in perineal wound healing in postpartum mothers.

Injuries in the birth canal provide an ideal environment for bacterial growth. Such injuries allow pathogenic bacteria to enter and potentially cause infections. Poorly managed perineal wounds in postpartum mothers are highly susceptible to infections, which significantly impact the healing process. The healing time for perineal tears varies; some heal normally, while others experience delayed recovery. The normal healing process for perineal wounds takes around 6 to 7 days postpartum. Normal healing of sutured wounds typically occurs between the 5th and 7th day, or even faster within 5 days, indicated by dry wounds. One of the factors influencing wound healing is perineal care. Improper perineal care can result in the perineum being exposed to lochia and moisture, creating a breeding ground for bacteria that may lead to infections. Wound care can be enhanced using antimicrobial wound dressings. The development of wound dressing formulations can aid in wound healing, with active natural ingredients increasingly being used as alternative treatments (Purnama et al., 2017).

Several herbal extracts can be used for perineal wound care, including lavender, turmeric, cinnamon, olive oil, calendula, chamomile, betel leaf, binahong leaf, aloe vera, and others. One of the traditional remedies used for perineal wound healing is aloe vera (Aloe vera). Aloe vera (family Liliaceae) belongs to the group of monocot flowering plants native to North Africa and is one of the most important medicinal plant species, used to treat various ailments since 1500 BC (Kumia & Ratnapuri, 2019).

Aloe vera is a plant that has been used for treating various diseases since ancient times. In vitro studies have shown that aloe vera extracts or components stimulate the proliferation of certain cell types. Aloe vera gel contains various glycoproteins that can reduce inflammation and pain, thereby accelerating wound healing. Moreover, aloe vera can be used for both internal and external wound treatment. It also contains polysaccharides that stimulate wound healing and new skin growth. Aloe vera is commonly available in gel form. Numerous studies indicate that the use of pure gel and aloe vera extracts accelerates wound healing (Novyana R.M, 2016). Due to its beneficial properties, aloe vera is expected to aid in speeding up perineal wound healing.

This aligns with research conducted by Essa (2020), which found that wound healing in the aloe vera gel group was faster than in the normal saline group. Similarly, a study by Walash et al. (2019) showed that the treatment group experienced faster healing, reduced pain levels, and shorter hospital stays after applying aloe vera gel dressings compared to the control group.

Research by Mira et al. (2019) concluded that perineal wound healing in postpartum mothers using aloe vera was mostly fast (75%), whereas those receiving dry clean care had a healing rate of 55%. The Mann-Whitney test showed that the average healing time in the aloe vera group was 4 days,

compared to 6 days in the dry clean group. Statistically, the p-value was 0.028 (<0.05), indicating that aloe vera gel significantly influences perineal wound healing duration in postpartum mothers.

Based on a preliminary study conducted by the author at PMB A Jatisampurna, data from April to June 2024 showed that out of 35 spontaneous vaginal births, 19 mothers (54%) experienced first-degree perineal tears, 7 mothers (20%) had second-degree perineal tears, and 9 mothers (26%) did not experience perineal tears. Many of these mothers reported pain after childbirth, leading to fear of movement. Changes in reproductive organs caused discomfort, making urination and defecation painful, which resulted in anxiety and discomfort among postpartum mothers.

METODOLOGI

The type of research used is a quasi experiment (quasi experiment) by using pre and posttest research design two group design. The research subjects were divided into two groups, namely the group that received the intervention (group intervention) and the group that did not get the intervention (group control) as a comparison (Sugiyono, 2018). The design of this study aims to determine the effect of aloe vera on perineal wound healing in puerperal mothers.

Location of research in PMB AW Jatisampurna, Bekasi. The population in this study were all puerperal patients in PMB AW Jatisampurna amounting to 30 people and the entire population was sampled (total sampling). The sample will be divided into 2 groups, namely 15 treatment groups and 15 control groups. The independent variable in this study is the administration of aloe vera (aloe vera) and for the dependent variable is the healing of perineal wounds in puerperal mothers. Data analysis using Paired Sample T-test.

RESULT

Univariate Analysis

Univariate analysis is used to see the frequency distribution of the characteristics of respondents in the study by using numbers or values of the number and percentage of each.

Table 1. Characteristics of respondents by age, education and occupation

No	Variabel		n	(%)
1.	**Usia**			
	-	20-35 Tahun	27	90
	-	>35 Tahun	3	10
2.	**Pendidikan**			
	-	SMA	15	50,0
	-	D3	7	23,3
	-	Sarjana	8	26,7

3.	**Pekerjaan**			
	-	Tidak Bekerja	12	40
	-	Bekerja	28	60
			30	**100**
	Total			

Source : Data Processed in 2025

Based on table 1, it can be seen that of the 30 mothers who were respondents in this study, most of the respondents were aged 20-35 years, namely 27 people (90%), had a high school education, namely 15 people (50%), and the respondents worked, namely 28 people (60%).

Bivariate Analysis

Bivariate analysis is an analysis of the relationship between two variables to determine whether there is a significant relationship between the dependent variable and the independent variable. Before the bivariate analysis conducted data normality test first against the existing data. The normality test used is Shapiro-Wilk. To see the effect of perineal wound healing before and after given aloe vera in the intervention group and control group with Independent t test samples.

Table 2. Data normality test results

	Shapiro-Wilk		
Kelompok	Statistic	df	Sig. Ket
Pre_Intervensi	.928	15.253	Normal
Post_Intervensi	.413	15.024	Normal
Pre_Kontrol	.965	15.786	Normal
Post_Kontrol	.874	15.038	Normal

Source : Data Processed in 2025

From Table 2. The result of the normality test value obtained for the intervention group before being given aloe vera gel (aloe vera) (pre-test) is 0.253 and after being given aloe vera gel (aloe vera) (post-test) is 0.024, this indicates that the normality test results are normally distributed data (p>0, 05), while the normality test results in the control group were not given aloe vera gel (aloe vera) (pre-test) was 0.786 and (post-control) was 0.038 this also shows that the results of the normality test data are normally distributed (p>0.05).

Table 3. Effect Of Aloe Vera On Perineal Wound Healing In Puerperal Mothers

Kelompok	N	*Mean*	*SD*	*Selisih Mean*	*P value*
Intervensi	15	5.53	1.959	1.80	0.000
Kontrol	15	7.33	2.610		

Source : Data Processed in 2025

From the results of Table 3. shows that the healing of perineal wounds given aloe vera (aloe vera) obtained the mean or average value of perineal wound healing is 5.53. While in the control group the mean or average value of perineal wound healing was 7.33. This means that wound healing in the control group is longer than the intervention group. In the intervention group given aloe vera gel (aloe vera) has a sig value < α = 0.05, namely a p value of 0.000, which means that it shows that there is an effect on perineal wound healing in postpartum women for the pretest of the intervention group with the posttest of the intervention group. While in the control group that was not given aloe vera gel (aloe vera) had a sig value < α = 0.05, namely a p value of 0.000, which means it shows that there is an effect on perineal wound healing in postpartum women for the control group pretest with the control group posttest.

DISCUSSION

The results of the analysis showed that there was an average difference of 1.80 between the intervention group and the control group, which indicated that the intervention group had faster perineal wound healing than the control group. The bivariate analysis results that have a sig value < α = 0.05, namely a p value of 0.000, which means that it shows that there is an effect of aloe vera on perineal wound healing in postpartum women at PMB A Jatisampurna Bekasi in 2024.

The results of this study are in line with research conducted by Dainty Maternity (2022) which states that there is an effectiveness of the use of aloe vera (Aloevera) on perineal wound healing in postpartum women in the Karang Anyar South Lampung Health Center Working Area. This is further strengthened by research conducted by Essa (2020), which states that wound healing in the aloe vera gel group is faster than the normal saline group. Similarly, the results of research by Renny Dwijayanti, et al (2024) state that the results of the study show that there is an effectiveness of using aloe vera (aloevera) on perineal wound healing in postpartum women.

According to Liesmayani et al., (2021) states that wound healing is a quality of tissue life, it is also related to tissue regeneration. Age, position, tissue handling, proper diet, hygiene, rest, hypovolemia, edema, lack of oxygen, accumulated drainage, medications, overactivity, systemic diseases, and immunosuppressed conditions can affect how quickly the wound heals. Nutritional Status, smoking, increasing age, obesity, diabetes mellitus (DM), corticosteroids, medications, poor oxygenation, infections, and wound stress are some of the factors that affect perineal wound healing. Antini et al, (2017) explain many factors that can affect the way the perineum wound healing puerperal mother, both internal and external factors. The Environment, Traditions, knowledge, socioeconomic situation, maternal health, diet, medicine and personal hygiene are examples of external factors that influence wound healing. Meanwhile, age, tissue damage or infection, tissue manipulation, bleeding, hypovolemia, local determinants of edema, dietary deficiency, personal hygiene, oxygen deficit, mode of delivery, type of perineal suture wound, and hemoglobin levels are internal factors that affect wound healing.

According to, Indriaty et al (2016) explained that aloe vera is commonly used as a hair fertilizer, wound healing, and skin care. Wound healing is a dynamic and complex process with the aim of restoring the anatomical structure and functions of the skin. To achieve these objectives, the diverse immunological and biological systems participate in a coordinated way, through three different phases, which are the inflammatory response (which consists of hemostasis and swelling), the proliferative phase (consisting of protein synthesis and wound contraction) and the remodeling phase.

Renny Dwijayanti, et al (2024) research that through the administration of aloe vera can provide vitamin E nutrients to support the healing process of perineal wounds can run well. Perineal lacerations that occur during vaginal delivery will require suturing. After suturing the perineal wound examination needs to be done to assess the results of stitches that may cause problems during the postpartum period. Therefore, it is necessary to take good care of the wound so as not to cause problems to the mother after giving birth.

Researchers assume that aloe vera plays an important role in every phase of wound healing. One of the dosage forms of hydrogel is aloe vera gel. Aloe vera is known to have many active compounds. Aloe vera Gel contains lignin which is able to penetrate and seep into the skin and plays an important role in the proliferation phase, so that cell repair occurs by forming new cells and can withstand the loss of excess fluid due to injury from the skin surface. So it can be concluded that the administration of aloe vera gel can accelerate the healing process of episiotomy wounds, so it can be used as an alternative choice in wound care.

Giving aloe vera can help in accelerating wound healing and accelerate the process of replacement and repair of damaged tissue function, aloe vera mucus also consists of several glycoproteins, which prevent inflation of pain and accelerate repair so that skin tissues will recover quickly. REEDA assesses the five components of the perineal healing process and trauma of each individual (Windary, 2019).

CONCLUSION

This study shows the effect of aloe vera (Aloe vera) on perineal wound healing in postpartum women. The results showed that the intervention group given aloe vera gel had a faster average wound healing (5.53 days) than the control group that was not given the intervention (7.33 days). Statistical analysis showed that this difference was significant with a p-value of 0.000, indicating that the use of aloe vera is effective in accelerating the healing process of perineal wounds in postpartum women.

REFERENCE

Alvarenga, et al. 2015. Episiotomy healing assessment: Redness, Oedema, Ecchymosis, Discharge, Approximation (REEDA) scale reliability. Rev. Latino-Am. Enfermagem. 23(1):162-8.

Antini, A., I. Trisnawati & J. Darwanty. (2016). Efektivitas Senam Kegel Terhadap Waktu Penyembuhan Luka Perineum pada Ibu Post Partum Normal. *Jurnal Penelitian Kesehatan Suara Forikes*

Aprilia. (2021). Faktor-faktor Yang Mempengaruhi Penyembuhan Luka Perineum Pada Ibu Nifas Di PMB Kota Palangka Raya. Palangka Raya: Politeknik Kesehatan Palangka Raya

Arikunto, S. (2018). *Prosedur Penelitian: Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta. 2018

Dwijayanti, Renny., Susilawati., Dainty. Maternity & Devi, Kurnia. (2024). Efektivitas Penggunaan Lidah Buaya (*Aloe vera*) Terhadap Penyembuhan Luka Perineum pada Ibu Nifas. *MJ (Midwifery Journal), Vol 4, No.1. XISSN (Online) 2746-7953, Hal 5-12*

Essa R, Mohamed N, K.H. (2020). *Effect of Aloe vera Gel Versus Normal Saline on Pain Relief and Healing Process of Episiotomy*. JHMN

Indah, S. & S. I. Putri. (2021). Pengaruh Posisi Miring dan Setengah Duduk Saat Persalinan Terhadap Robekan Perineum Derajat I dan II. Biomed Science

Indryati, S., Indrawati, T., Taurhesia S. (2016). Uji Aktivitas Kombinasi Ekstrak Air Lidah Buaya (Aloe Vera L.) dan Akar Manis (Glycyrrhiza glabra L.) Sebagai Penyubur Rambut. Pharmaciana, 6 (1), 55-62.

Kemenkes, R. (2021). *Profil Kesehatan Indonesia 2021*

Kurnia, D., & Ratnapuri, P. H. (2019). Review: Aktivitas Farmakologi Dan Perkembangan Produk Dari Lidah Buaya (Aloe vera L.). *Jurnal Pharmascience.*

Kusuma, P. & S. Dian. (2020). Perawatan Luka Perineum Dengan Menggunakan Air Rebusan Daun Binahong Pada Ibu Postpartum. Diploma Thesis. Lampung Selatan: Poltekkes Tanjungkarang.

Liesmayani, E. E., Sulastri & N. Oriza. (2021). Efektifitas Air Rebusan Daun Binahong dengan Kesembuhan Luka Perineum pada Ibu Nifas Tahun 2019. *JIDAN: Jurnal Ilmiah Kebidanan*

Maghfuri, A. (2015). *Keterampilan Dasar Perawatan Luka Bagi Pemula*. Trans Info Media

Maternity, Dainty. (2022). Efektivitas Penggunaan Lidah Buaya (*Aloe vera)* terhadap Penyembuhan Luka Perineum pada Ibu Nifas di Wilayah Kerja

Puskesmas Karang Anyar Lampung Selatan Tahun 2021. *Jurnal Ilmiah Bidan Vol. 6 No. 3, p-ISSN: 2502-3144*

Mira, M., Rita Darwati & Hengky Irawan. (2024). Penggunaan *Aloe vera* Berbadenis Milleer (*Aloe vera*) dalam Penyembuhan Luka Perineum Ibu Postpartum. *Jurnal Ilmu Kesehatan Vol. 12 No. 2*

Moghaddasi S dan Verma S. (2011). Aloe vera their chemical composition and applications. *Int J Biol Med Res. 2 (1) : 466-471.*

Morton, L, Phillips J. (2016). Wound healing and treating wounds: differential diagnosis and evaluation of chronic wounds. J. Am. Acad. *Dermatol. 74: 589–605*

Natsir, N. A. (2013). Pengaruh Ekstrak Daun Lidah Buaya (Aloe Vera) sebagai Penghambat Pertumbuhan Bakteri Staphylococcus Aureus. Prosiding FMIPA. Universitas Pattimura.110-112

Noordia, A dan Nurita. (2018). Pelatihan Lidah Buaya Masyarakat Tebo Selatan Kelurahan Mulyorejo. J. Abdi. Vol. 3 (2), 47-84

Novyana R.M, S. (2016). *Lidah Buaya (Aloe vera) untuk Penyembuhan Luka, Majority, IV, pp. 149–53.*

Primadona, P., & Susilowati, D. (2015). Penyembuhan Luka Perineum Fase Proliferasi Pada Ibu Nifas the Process of Healing Proliferation Phase Perineum Lesion. Profesi, 13(1), 1–5.

Purnama, H., Sriwidodo, & Ratnawulan, S. (2017). Review Sistematik : Proses Penyembuhan dan Perawatan Luka. *Farmaka Journal, 15(2), 251–256*

Sanchez, M., Gonzales-Burgos, E., Iglesias, I., Gomez-Serranillos, M. P. (2020). Pharmacological update of aloe vera and its major active constituents. Molecules. 25(6): 1324.

Sugiyono. (2018). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta, CV

Suryowidodo. (2015). Lidah Buaya (Aloe vera) Sebagai Bahan Baku Industry. Warta IHP.

Tarameshloo M, Norouzian M, Zarein-Dolab S. (2012). Aloe vera gel and thyroid hormone cream may improve wound healing in Wistar rats in Anat Cell Biol. (45:170-7)

Walash, A. M., Elhana, O., Abo, K., & El - sol, A. E. H. (2019). Efficacy of Dressing by *Aloe vera* Gel on Healing and Pain among Burned Patients. *American Journal of Nursing Research, 7(6), 1028–1040. https://doi.org/10.12691/ajnr - 7 - 6 -17*

Yulansari Hernita. (2018). *Penerapan Jus Nanas Untuk Mempercepat Penyembuhan Luka Perineum Pada Ibu Nifas Di PMB Sri Rejeki Program Studi D3 Kebidanan STIKes Muhammadiyah Gombong 19*.

Yuli Yanti Anwar. (2017). Pengaruh Pemberian Jus Nanas Dan Madu Terhadap Penyembuhan Luka Perineum Pada Ibu Post Partum Di BPM Ny. Arifin Surabaya. *Jurnal Kebidanan Program Studi D3 Kebidanan STIKes Surabaya.*