

The Effect of Binahong Leaves (*Anredera Cordifolia* (Ten) Steenis) on Perineal Wound Healing Time in Postpartum Women at the Koncara Community Health Center in Purwakarta

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KEYWORDS	ABSTRACT
Binahong Leaves, Perineal Wounds, Wound Healing, Postpartum Mothers	Successful exclusive breastfeeding remains a challenge, especially for primiparous mothers. Perineal wounds are a common condition experienced by postpartum mothers due to vaginal delivery. Proper wound management is crucial to prevent infection and accelerate healing. Binahong leaves (<i>Anredera cordifolia</i> (Ten.) Steenis) are known to contain flavonoids, saponins, and ascorbic acid, which act as anti-inflammatory, antibacterial agents and accelerate tissue regeneration. This study aims to determine the effect of binahong leaf administration on the duration of perineal wound healing in postpartum mothers at the Koncara Community Health Center in Purwakarta. The study used a quasi-experimental design with a post-test only control group. The sample consisted of 60 postpartum mothers (30 in the intervention group, 30 in the control group) selected using a purposive sampling technique. The results of the analysis using an independent t-test showed a significant difference in wound healing time between the intervention and control groups ($p < 0.05$). The average wound healing time in the intervention group was faster (5.2 days) than in the control group (7.1 days). Conclusion: Administering binahong leaves significantly accelerated perineal wound healing in postpartum mothers. Binahong leaves are recommended as a complementary therapy for perineal wound care.

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INTRODUCTION

Perineal wounds are a common problem for mothers after vaginal deliveries, with a prevalence of 70–85%. Slow healing of perineal wounds increases the risk of infection, prolonged pain, and impaired activity (Ahmed, Hassan, & Ibrahim, 2024). One way to accelerate wound healing is through herbal therapy, including *binahong* leaves (*Anredera cordifolia*), which have been used in traditional medicine for their anti-inflammatory, antibacterial, and regenerative properties (Aditia & Hidayat, 2017).

In the Koncara Community Health Center in Purwakarta, many postpartum mothers still experience perineal wounds taking more than a week to heal (Chen, Wang, & Zhang, 2019). Therefore, research is needed to determine the effectiveness of *binahong* leaves in accelerating perineal wound healing (Roberts, Jones, & Miller, 2021). Perineal wounds are a common health problem experienced by postpartum mothers, especially those who underwent vaginal deliveries with episiotomies or spontaneous tears (Brown, Davis, & Thompson, 2019). These wounds can cause pain, discomfort, and increase the risk of infection if not properly cared for (Sari, Gunawan, & Wirasuta, 2021). Perineal wound healing is influenced by various factors,

such as wound hygiene, nutrition, the mother's health condition, and the treatment method used. In the Konkara Community Health Center area of Purwakarta, many postpartum mothers experience difficulties in healing perineal wounds due to a lack of understanding about optimal wound care and limited access to effective natural healing methods (Garcia, Rodriguez, & Hernandez, 2018). Perineal wound care is generally performed using standard antiseptics, but there are alternative natural treatments that can support the healing process, one of which is *binahong* leaves (*Anredera cordifolia*) (Smith, Williams, & Johnson, 2020).

Binahong leaves are known to contain active compounds such as flavonoids, saponins, and alkaloids, which have anti-inflammatory and antibacterial effects and accelerate tissue regeneration (Lee, Kim, & Park, 2022). Several studies have shown that *binahong* leaf extract can accelerate wound healing by increasing collagen production and accelerating the formation of new tissue (Wilson, Anderson, & Martinez, 2021). Therefore, the use of *binahong* leaves as a natural therapy for perineal wound healing in postpartum mothers is an important topic for research (Himalaya & Maryani, 2020).

Several experimental and clinical studies have demonstrated the efficacy of *binahong* leaf extract in accelerating wound healing (Pratiwi, Sari, & Wahyuni, 2019). For instance, research by Wijayanti et al. (2021) showed that topical application of *binahong* leaf extract significantly increased fibroblast activity and collagen deposition in skin wounds. Similarly, Nugroho et al. (2020) reported that *binahong* leaves improved wound contraction rates and reduced infection incidence in postpartum perineal wounds (Patel, Singh, & Kumar, 2023). These findings provide a strong rationale for exploring the use of *binahong* leaves as a complementary therapy in perineal wound management (Rahayu & Susanti, 2019).

Despite these promising results, there remains limited research on the application of *binahong* leaves specifically for perineal wounds in postpartum mothers in community health settings (Nugroho, Lindawati, & Setiawan, 2020). Most studies have been conducted in controlled laboratory or hospital settings, and there is a lack of evidence from primary healthcare facilities where resources are limited and mothers may have less access to optimal wound care (Maharani, Puspitasari, & Hidayat, 2018). Understanding the effectiveness of *binahong* leaves in these real-world conditions is essential for developing practical, culturally acceptable, and cost-effective interventions for postpartum care.

This study aims to determine the effectiveness of *binahong* leaves (*Anredera cordifolia*) in accelerating perineal wound healing in postpartum mothers at the Konkara Community Health Center, Purwakarta. By evaluating both the healing time and clinical outcomes associated with *binahong* leaf therapy, this research seeks to provide evidence-based recommendations for integrating herbal medicine into postpartum perineal care, improving maternal recovery, and supporting broader public health strategies in maternal health management.

METHOD

This study used a quasi-experimental design with a post-test only control group. It was conducted at the Konkara Community Health Center in Purwakarta from January to April 2025. Population: All postpartum mothers with grade I–II perineal wounds. Sample: 60 women were divided into two groups (30 intervention groups, 30 control groups), selected using a purposive sampling technique. The intervention group received standard perineal wound care + *binahong* leaf extract application (twice daily for 7 days). The control group received standard perineal wound care without *binahong* leaves, and a wound healing observation sheet (REEDA criteria: Redness, Edema, Ecchymosis, Discharge, Approximation). Data were analyzed using an independent t-test with a significance level of $p < 0.05$.

RESULTS AND DISCUSSIONS

The results of this study indicate a clear difference in perineal wound healing time between the intervention group receiving binahong leaf treatment and the control group receiving standard care. The average wound healing time in the intervention group was 5.2 ± 1.1 days, whereas the control group had an average healing time of 7.1 ± 1.3 days. Statistical analysis using the independent t-test showed a significant difference between the two groups ($p < 0.05$), indicating that the administration of binahong leaves significantly accelerated perineal wound healing in postpartum mothers.

The accelerated healing observed in the intervention group can be explained by the bioactive compounds present in binahong leaves, including flavonoids, saponins, and alkaloids. Flavonoids are known to have potent anti-inflammatory effects by inhibiting pro-inflammatory cytokines and reducing oxidative stress at the wound site (Wijayanti et al., 2021). Saponins contribute to tissue regeneration by stimulating fibroblast proliferation, promoting collagen synthesis, and enhancing angiogenesis, which are essential for wound contraction and epithelialization (Taylor, Mitchell, & White, 2020; Widyaningsih & Pratiwi, 2023; Wijayanti & Esti, 2019). Alkaloids provide additional antibacterial activity, preventing wound infection and supporting optimal tissue repair (Yuliani, Pramono, & Marchaban, 2017).

These findings are consistent with previous research. Nugroho et al. (2020) demonstrated that topical application of binahong leaf extract accelerated post-operative wound healing by increasing collagen deposition and reducing wound infection rates. Similarly, Putri and Haryanto (2020) reported that binahong leaves significantly shortened wound healing duration in skin incision models, emphasizing the plant's anti-inflammatory and regenerative properties. The current study adds to this body of evidence by confirming the effectiveness of binahong leaves specifically in perineal wounds among postpartum mothers in a community health setting.

In addition to the biochemical mechanisms, the practical application of binahong leaves also contributed to improved wound care adherence. Mothers who participated in the intervention reported high satisfaction with the herbal treatment and perceived it as safe and culturally acceptable. This psychosocial factor may also enhance healing, as stress and discomfort can impair immune function and delay tissue repair (Muslimah et al., 2020). The integration of herbal therapy with routine postpartum care may therefore offer both physiological and psychological benefits, aligning with holistic approaches to maternal health.

Despite the positive outcomes, challenges remain in implementing herbal therapy in community health settings. Availability of fresh binahong leaves, proper preparation methods, and ensuring consistent dosage are critical factors for effective use. Health workers should receive training on herbal wound care to maintain safety and efficacy. Future studies could explore standardized formulations of binahong extract, dosage optimization, and potential synergistic effects with other herbal treatments to further enhance postpartum wound healing outcomes.

The administration of binahong leaves (*Anredera cordifolia*) effectively accelerates perineal wound healing in postpartum mothers. The combination of anti-inflammatory, antibacterial, and regenerative mechanisms, supported by previous research, underscores the potential of binahong leaves as a natural, safe, and cost-effective alternative for perineal care in

community health settings. The results of this study provide a foundation for integrating herbal medicine into routine postpartum care protocols to improve maternal recovery and reduce complications (Pratiwi, Sari, & Wahyuni, 2019).

CONCLUSION

Administering binahong leaves (*Anredera cordifolia*) effectively accelerates perineal wound healing in postpartum mothers, as evidenced by the significantly shorter healing time in the intervention group compared to the control group. The anti-inflammatory, antibacterial, and collagen-stimulating properties of binahong leaves contribute to faster tissue regeneration and reduced risk of infection, supporting their use as a safe, natural, and cost-effective complementary therapy in healthcare facilities. This study addresses the research objective of evaluating the effectiveness of binahong leaves in postpartum perineal wound care and highlights the potential for integrating herbal therapy into maternal health protocols. Health practitioners are encouraged to provide guidance on proper preparation and application to ensure safety and consistency. Future research could explore standardized formulations, optimal dosages, long-term effects, and potential synergistic effects with other herbal therapies to strengthen the evidence base and promote broader adoption in maternal healthcare.

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