

# Honey-lidocaine versus honey-povidone iodine: A randomised controlled trial on second-degree perineal wound healing

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## ABSTRACT

**Introduction:** Second-degree perineal rupture involves vaginal mucosa and perineal muscle injury, influenced by factors like primiparity, macrosomia, and prolonged labor. Wound healing follows stages of hemostasis, inflammation, proliferation, and remodelling. To accelerate wound healing, honey has been used as an alternative due to its antimicrobial, anti-inflammatory, and antioxidant properties. **Objective:** This study evaluates the effectiveness of honey-lidocaine and honey-povidone iodine combinations in healing perineal wounds. **Materials and Methods:** This double-blind randomised controlled trial was conducted at Siti Khadijah 1 Mother and Child Hospital (February–August 2024) on postpartum women with second-degree perineal rupture. Participants were randomly assigned to three groups receiving Cream Code A, B, or C, applied twice daily for 14 days. Wound healing was assessed using the REEDA scale on days 0, 1, 7, and 14. Statistical analysis included ANOVA and Tukey's test for normally distributed data and Kruskal-Wallis with Mann-Whitney tests for non-normal data. Further, paired T-tests and Wilcoxon tests were used to compare the results of pre- and post-intervention. Analyses in this study were performed using IBM SPSS 24 with  $p < 0.05$ . **Results:** After 14 days of intervention, this study observed a significant decrease in the total REEDA scale for all types of creams. Among honey-povidone iodine and placebo, the honey-lidocaine combination cream was reported to have the lowest scale ( $p < 0.01$ ). The study also found that most participants with normal BMI were nulliparous, aged 20–35. **Conclusion:** This study concludes that honey-lidocaine cream demonstrates faster healing than honey-povidone iodine and placebo. This finding offers a promising postpartum wound care option.