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**File: ■ Lavender (*Lavandula* spp.)
■ Povidone-iodine
■ Episiotomy**

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RE: Lavender Essential Oil and Povidone-iodine Are Similarly Effective Treatments for Episiotomy Wound Healing

Vakilian K, Atarha M, Bekhradi R, Chaman R. Healing advantages of lavender essential oil during episiotomy recovery: a clinical trial. *Complement Ther Clin Pract.* Feb 2011;17(1):50-53. doi:10.1016/j.ctcp.2010.05.006.

Episiotomy is a perineal incision that is performed to prevent vaginal lacerations during childbirth. Antiseptic sitz baths are routinely used in postpartum episiotomy wound care, and povidone-iodine topical antiseptics are used in particular in Iran. Spanish lavender (*Lavandula stoechas*) has a long history of traditional medicinal use. Constituents of lavender (*Lavandula* spp.) essential oil have anti-inflammatory, antifungal, and antibacterial effects, including activity against gram-negative and gram-positive bacteria, as well as pathogenic fungi. Two clinical trials have found that lavender oil added to bathwater reduces postpartum perineal discomfort.^{1,2} The purpose of this randomized, controlled clinical trial was to examine the effect of lavender (species not stated) essential oil baths compared to povidone-iodine treatment on episiotomy wound healing.

The study was conducted by researchers at Barij Essence Pharmaceutical Co. (Delijan, Iran), Arak University of Medical Sciences (Tehran, Iran), and Shahrood University of Medical Sciences (Shahrood, Iran). Lavender essential oil was extracted from fresh flowers and inflorescences collected immediately before blooming and diluted with olive oil to produce a 1.5% lavender essential oil product. The researchers enrolled 120 subjects, including primiparous women with singleton pregnancies who had received mediolateral episiotomies during spontaneous vaginal deliveries. None of the subjects had allergies or chronic diseases. The researchers used computerized block randomization to divide the subjects into 2 groups: lavender oil (n=60) and control (n=60). The control group received povidone-iodine antiseptic (exact treatment protocol not discussed). The lavender oil group took sitz baths with 5-7 drops lavender essential oil in 4 L of water twice daily for 10 days. On the tenth day after childbirth, the subjects came to Taleghani clinic (location not stated) for an episiotomy evaluation by a trained, blinded midwife. The evaluation included an assessment of 6 criteria: pain (visual analogue scale), edema (cm), redness (mm), dehiscence (wound opening), number of sutures, and infection. Retest (r=0.8) was used to assess reliability.

The authors did not discuss study withdrawals. There were no significant differences between the groups in age, occupation, education, duration of the first and second stages of labor, number of pregnancies, and newborn weight. At 10 days, there was no significant difference between the groups in pain, with 17 subjects in the control group and 25 subjects in the lavender oil group reporting no pain ($P=0.063$). However, more subjects in the control group reported severe pain compared to the lavender oil group (18 vs. 8, respectively). None of the lavender oil subjects showed edema greater than 2 cm, while 7 control group subjects did. There were also no significant differences in edema, leaved suture, or dehiscence.

Redness was significantly reduced in the lavender oil group compared to the control group. After 10 days, 13 control group subjects and 31 lavender oil group subjects had no redness ($P=0.001$), and 28 subjects in the control group and 8 subjects in the lavender oil group showed redness greater than 7 mm (the greatest level measured). The researchers report no complications, with the exception of "a little irritation" in 2 subjects (treatment group not stated). There were 5 subjects with mild infections treated by antibiotics (control: $n=2$, lavender oil: $n=3$).

The authors conclude that lavender essential oil is "a suitable therapy for postpartum episiotomy wound care." The results show that subjects using lavender oil sitz baths had a similar experience to those using povidone-iodine antiseptics in treating postpartum episiotomy pain and edema and preventing infection, though lavender oil was more effective in treating redness. The authors suggest future clinical trials with larger subject samples and careful follow-up to confirm these results.

—*Marissa Oppel-Sutter, MS*

References

¹Dale A, Cornwell S. The role of lavender oil in relieving perineal discomfort following childbirth: a blind randomized clinical trial. *J Adv Nurs*. Jan 1994;19(1):89-96.

²Cornwell S, Dale A. Lavender oil and perineal repair. *Mod Midwife*. Mar 1995;5(3):31-33.

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