Effect of Perineal Massage with Ostrich Oil on the Episiotomy and Lacerations in Nulliparous Women: A Randomized Controlled Clinical Trial

Abstract
Background: Perineal lacerations resulting from vaginal delivery may cause short and long complications, which lead to some problems in women after the delivery. Ostrich oil is safe for use in skincare and beauty products. The aim of this study was to examine the effect of perineal massage with Ostrich oil on the episiotomy and lacerations in nulliparous women. Materials and Methods: This single-blind randomized controlled trial was conducted on 77 nulliparous women referred to Razi Hospital in Qazvin (Iran) from May to December 2018. After screening of potential participants, 80 out of 105 pregnant women were selected by convenience sampling and were assigned into the intervention and control groups by block randomization technique. In the intervention group, participants received a perineal massage with Ostrich oil in the active phase and the second stage of labor. The rates of episiotomy and perineal laceration were compared between the two groups. Data were analyzed using Chi-square, T-test and Mann-Whitney. Results: Perineal massage with Ostrich oil in the intervention group significantly decreased the rate of episiotomy compared to the control group ($\chi^2 = 18.32, df = 1, p < 0.001$). However, there was no statistically significant difference in perineal lacerations between the two groups. Conclusions: The results revealed that perineal massage with Ostrich oil could be recommended as an effective, safe, and inexpensive method to improve the rate of episiotomy in vaginal delivery. Perineal massage can be performed by midwives in the first and second stages of labor.

Keywords: Episiotomy, lacerations, massage, nulliparity, perineum

Introduction
An episiotomy is the most common surgical incision in midwifery. Pain resulting from episiotomy has always been a stressful problem for infertile women, which has negative effects on first maternal experience and performance. Episiotomy pain also results in problems in sitting, walking and raising the baby. In previous studies, the rates of episiotomy and perineal injury have been reported at 30–90%. In nulliparous women, the prevalence of perineal lacerations has been reported by 40%. These injuries may result in complications including hemorrhage, hematoma, infection, vesicovaginal and recto-vaginal fistulas, painful intercourse, and urinary and bowel incontinence, which confront many women with physical, psychological and social health problems. Perineal pain is common in nulliparous women and is associated with complications such as insomnia, anxiety, delay in making a relationship between mother and infant and inappropriate position for breastfeeding. Its prevalence is reported 92% on the first day after the labor.

Perineal massage can enable women to regain function after childbirth. Studies have shown that perineal massage results in reducing episiotomy and increasing the rate of healthy perineum after the delivery. Some studies have shown that perineal massage is associated with a 15–21% reduction in the rate of episiotomy in the intervention group compared to the control one. Perineal massage is also a valuable method to preserve perineum against possible injuries. Women who used perineal massage experience less pain in the perineum when the baby’s head is out.

There are mixed findings of the effect of perineal massage on the prevention of perineal injury. Some studies have shown...