

Nursing 2020: Nonpharmacological Evidence-Based Practices That Affect Wound Healing After Cesarean- Fusun Terzioglu, Atilim University

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The purpose of this paper is to summarize the nonpharmacological evidence-based practices that boost wound healing after cesarean delivery. Although the World Health Organization (WHO) had suggested that indications of cesarean should not exceed 15%, the cesarean rate in Turkey is 52%, sadly. Nerve damage, tissue damage, edema, inflammation, muscle tension may develop in the abdominal region due to the surgical procedure following cesarean delivery. The wound healing process yields to prolong when these conditions are not taken seriously. Accelerating the wound healing process is vital in terms of reducing complications, morbidity, mortality, shortening the length of hospital stay, reducing the costs of treatment and care, therefore improving the quality of life, providing adequate breastfeeding and secure attachment between the mother and the newborn.

Although precautions are taken to minimize the factors that delay wound healing after cesarean, pharmacological treatments can cause side effects such as nausea-vomiting, abdominal distention, gas pain, allergies, etc. Hence, many cost-effective nonpharmacological interventions have become the main topic in preventing infection at the incision site, accelerating wound healing, and reducing pain. In the literature, ERAS protocols such as early mobilization, chewing gum, early oral nutrition, and glycemic control as nonpharmacological interventions have been reported to positively affect the wound healing process. Moreover, it is stated that the application of wound care dressings with grape seed oil, aloe vera gel after the cesarean has positive effects on the wound healing process. Though there are limited studies in the literature, Kinesio taping is also used as an effective method to deal with symptoms such as infection, edema, and hematoma might occur in the management of wound healing. It has been concluded that Kinesio taping has positive effects on the wound healing process via increasing lymph and blood flow.

Therefore, in this paper, the levels of evidence and effect mechanisms of evidence-based nonpharmacological interventions applied in the wound healing process will be discussed. In this context, this presentation will include suggestions to increase the patients' quality of life, shortening the length of hospital stay and accelerating the wound healing process, thereby protecting the health of the mother and the newborn, especially with the interventions of nurses who have an important role and independent responsibility in the wound healing process.

Keywords: Cesarean, wound healing, evidence-based practices, nurse

Cesarean conveyance may be a major obstetrical surgical strategy getting to save the lives of mothers and fetuses.¹ The incidence of cesarean deliveries, both replicate and first, has risen dramatically over the previous couple of decades, with an estimated global number of twenty-two .9 million cesarean deliveries in 2012.^{2,3}As a surgical procedure, cesarean delivery may be accompanied by a number of complications, surgical site infection (SSI) being one among them. The rate of SSI ranges from 3% to fifteen worldwide.^{4–6} the difference in incidence may reflect variation in population characteristics and risk factors, perioperative exercise, and therefore the duration from the procedure until ascertainment. The risk for growing SSI has importantly reduce within the last three decades, mainly due to improvements in hygiene conditions, antibiotic prophylaxis, sterile procedures, and other practices.^{7,8} Despite this decrease, the incident of SSI is estimated to extend given the continual rise within the incidence of cesarean deliveries. Postcesarean SSI may increase maternal morbidity and mortality.^{9, 10} additionally, SSI are often frustrating for the mother trying to get over the procedure and at an equivalent time lookout of the newborn. It's going to prolong maternal hospitalization, increase health care costs, and cause other socioeconomic implications

Wound dressing

There are several sorts of bandages available for dressing the surgical wound at the top of a surgery. A meta-analysis of 16 trials found no difference in SSI rate between surgical wounds covered with differing types of dressings and people left uncovered.^{7,3} Two Cochrane reviews regarding early (<48 hours) versus delayed dressing removal and postoperative bathing reported limited data, but no significant difference in SSI rate was shown. Early (6 hours) compared to delayed (24–48 hours) removal of the wound dressing was also recently examined in a RCT. The authors reported comparable wound complications that included infection, disruption, and seroma/hematoma formation. More women were pleased and satisfied with early removal.

Negative pressure wound therapy is the application of suction to healing wounds. The technique is used for the treatment of chronic wounds. Its use on surgical wounds was evaluated in a meta-analysis by Webster which did not find it superior to the traditional dressings in terms of wound complications. There are no available RCTs on its role in cesarean section.

Management

The management of postcesarean wound infection added antibiotic treatment, wound exploration, and debridement as soon as indicated.

When there are signs of pelvic infection, empirical broad-spectrum antibiotic regimen should be initiated, including anaerobic coverage. An acceptable regimen includes clindamycin with an aminoglycoside or aztreonam. For the coverage of Enterococcus, ampicillin may be added to the regimen. Approximately 90% of women will be afebrile within 48–72 hours after initiation of antibiotic treatment. Once the women are afebrile and asymptomatic for 24 hours, parenteral antibiotics may be discontinued. If the infection improves with intravenous antibiotics, there is probably no need to follow the intravenous antibiotics with a course of oral antibiotics

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