

Early wound dressing removal after scheduled cesarean delivery: a randomized controlled trial



David Peleg, MD; Esther Eberstark; Steven L. Warsof, MD; Nadav Cohen; Inbar Ben Shachar, MD

BACKGROUND: Following cesarean delivery, wound dressings are typically left over the incision for 24-48 hours.

OBJECTIVE: The objective of this study was to determine if early removal of the wound dressing at 6 hours postsurgery has any effect on wound complications.

STUDY DESIGN: This was a randomized, controlled study from August 2013 through January 2015 in which 320 low-risk women aged 18-44 years having scheduled primary, first repeat, or second repeat cesarean delivery were randomized for wound dressing removal at either 6 or 24 hours postsurgery. Skin closure was with staples in all cases. The primary outcome was postoperative wound complications, defined as infection, disruption (skin dehiscence or deeper), or seroma/hematoma. Also examined was patient satisfaction with timing of their ability to wash or shower after wound dressing removal. A sample size of 160 women in each group was needed to show a 100% increase in the wound complication incidence from 12-24%.

RESULTS: A total of 320 women were randomized, 160 in the 6-hour group and 160 in the 24-hour group. The proportion of primary and repeat cesarean deliveries was similar. The incidence of wound complications was not significantly different between the groups, 13.8% in the 6-hour group and 12.5% in the 24-hour group (odds ratio, 1.16; 95% confidence interval, 0.58–2.14). More women were pleased and satisfied with their ability to wash or shower soon after wound dressing removal in the 6-hour group (75.6%) compared to the 24-hour group (56.9%; odds ratio, 2.35; 95% confidence interval, 1.46–3.79).

CONCLUSION: Early removal of the wound dressing at 6 hours following cesarean delivery has no detrimental effect on incision healing. Early removal permits the woman to attend to personal hygiene earlier, making her more satisfied with her postoperative recovery.

Key words: cesarean delivery, hematoma, patient satisfaction, seroma, wound complications, wound dehiscence, wound dressing, wound infections

Introduction

The US cesarean delivery rate released by the National Center for Health Statistics for 2013 was 32.7%, making it the most frequent operation in women aged 18-44 years performed in the United States.¹ There are several methods of skin closure, one of which involves staples over which an abdominal wound dressing is placed. Wound dressings are important to absorb serous leakage, which protects against infection and maintains an environment conducive to healing.^{2,3}

The incidence of wound complications after cesarean delivery ranges from 2.8-26.6%.⁴ Centers for Disease Control and Prevention (CDC) guidelines in 1999 for prevention control of surgical site infections recommended that the primarily closed surgical incision should

be covered with a sterile dressing for 24-48 hours.^{2,3} However, it is undetermined whether dressing removal <24 hours increases the risk of surgical site complications.

The purpose of this study was to determine whether early wound dressing removal has an effect on wound complications such as infection, disruption, hematoma, or seroma. Early removal would allow women to wash or shower sooner, and therefore, we were also interested in determining if this increased their satisfaction with their postoperative recovery.

Materials and Methods

This was a randomized, controlled study that was performed from August 2013 through January 2015. Included were low-risk women aged 18-44 years at term with singleton pregnancies having a scheduled nonlabored primary, first repeat, or second repeat cesarean delivery and failed inductions. All patients gave informed written consent. All surgeries were performed under spinal anesthesia. Excluded were women with known pregnancy complications such as fever, diabetes, or preeclampsia,

and patients who had labored or with prelabor rupture of membranes. To further decrease confounders, also excluded were women with a body mass index ≥ 35 .

Randomization was by computer-generated blocks of 2. Women were randomized for wound dressing removal at either 6 or 24 hours postsurgery. Six hours was chosen as this is the time all women were routinely moved from their bed to a chair. The primary outcome was the incidence of a wound complication, defined as infection, wound disruption (skin dehiscence or deeper), or seroma/hematoma. Women having >1 complication were categorized as the more significant in the order given above. Women were permitted to wash or shower after wound dressing removal, and our secondary outcome was patient satisfaction with their postoperative care measured by a questionnaire.

All cesarean deliveries were performed in a similar fashion. All women received a single-dose prophylactic antibiotic within 1 hour of skin incision. All abdominal preparations were by povidone iodine 7.5% soap scrub followed by povidone iodine 10%, ethanol 65%

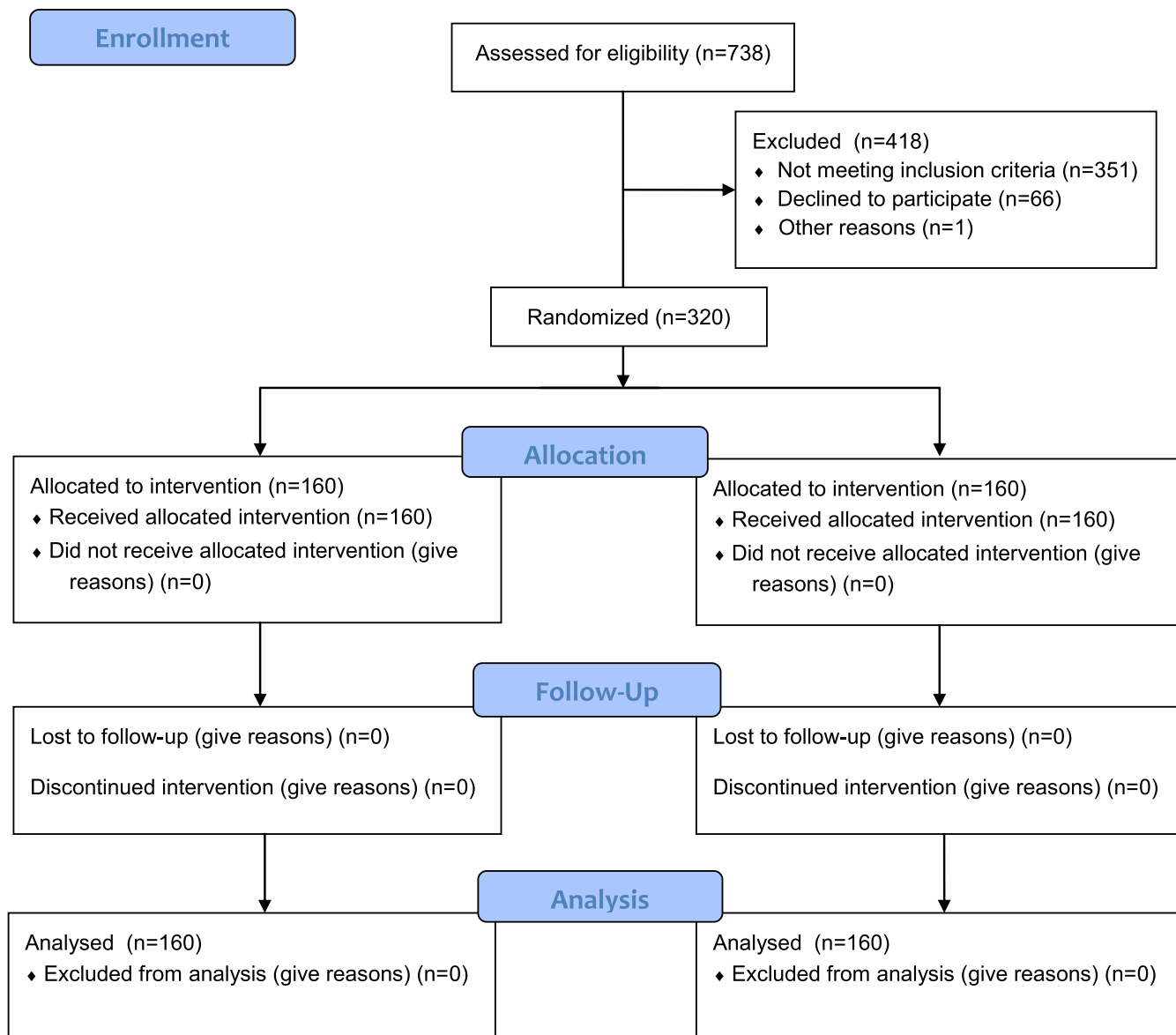
Cite this article as: Peleg D, Eberstark E, Warsof SL, et al. Early wound dressing removal after scheduled cesarean delivery: a randomized controlled trial. *Am J Obstet Gynecol* 2016;215:388.e1-5.

0002-9378/\$36.00

© 2016 Elsevier Inc. All rights reserved.

<http://dx.doi.org/10.1016/j.ajog.2016.03.035>

FIGURE
CONSORT flow diagram



Consolidated Standards of reporting Trials (CONSORT) flow diagram.¹²

Peleg et al. Early vs late wound dressing removal. *Am J Obstet Gynecol* 2016.

wash. Skin incisions were all Pfannenstiel. Intraabdominal adhesion barriers were not used. The bladder flap, rectus muscles, and parietal peritoneum were not closed. Closure of the fascia was by Vicryl (Ethicon, Somerville, NJ) for first cesarean deliveries and polydioxanone (Ethicon) for repeat cesarean deliveries. Subcutaneous tissue was closed if the depth was >2 cm. Skin incisions were closed using staples. A standard

adhesive nonwoven wound dressing (Pharmapore Sterile; Pharmaplast, Alexandria, Egypt) was applied.

Nurses removed the wound dressing at the designated time. All women were moved to a chair at 6 hours post-operatively. Bladder catheters were removed at 6-12 hours. Use of the bathroom for personal hygiene (washing or showering) was permitted only after wound dressing removal (6 or 24 hours).

Nurses recorded the time of bathroom use for washing or showering. Women were routinely discharged on post-operative day 3 or 4 unless requiring intravenous antibiotics.

Prior to discharge, women were reminded of the 2 arms of this study, and were asked "What is the level of satisfaction with the timing of your dressing removal and your ability to wash or shower thereafter." The 3

Download English Version:

<https://daneshyari.com/en/article/3432153>

Download Persian Version:

<https://daneshyari.com/article/3432153>

[Daneshyari.com](https://daneshyari.com)