

Extra Abdominal versus Intra Abdominal Uterine Repair: a Randomized Control Trial

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Objective: To compare extra-abdominal vs intra-abdominal repair of the uterine incision at cesarean delivery in Pakistan.

Methods: This was a randomized controlled trial conducted at the Gynae Unit III, Lady Willingdon hospital Lahore. Inclusion criteria were indication for cesarean delivery and gestational age of 36 weeks or more in primigravidas. Patients with previous cesarean deliveries, chorioamnionitis, antipartum hemorrhage, pregnancy induced hypertension, diabetes, previous abdominal surgery were excluded. Different variables analyzed were post operative fever, vomiting, mean operative time, intraoperative blood loss, postoperative pain, number of postoperative analgesic doses and surgical site infection.

Results: The analysis included 100 patients randomized each for exteriorized uterine repair and patients in situ uterine repair. A significant difference was observed in duration of surgery: lasting less than 45 minutes (46% with exteriorized uterus compared with 34.3% with in situ uterus, $P=.03$; and number of sutures required (18.6% requiring one suture in the exteriorized group compared with 12.5% in the in situ group, $P=.02$). The frequency of moderate or severe pain 6 hours after surgery was higher in women with exteriorized repair (23.0%) when compared with those who underwent in situ repair (32.4%) ($P=.025$). There was no difference between the groups in relation to other variables.

Conclusion: There is no significant difference between extra-abdominal and intra-abdominal repair of the uterine incision at cesarean delivery, but the number of sutures required is lower and surgical time is shorter with extra-abdominal repair, although moderate and severe pain at 6 hours is less frequent with in situ uterine repair.

Key words: C- section, exteriorized repair of uterus, techniques, insitu, extra abdominal

INTRODUCTION

Caesarean section is one of the most frequently performed major surgical procedures worldwide. It accounts for between 1% and 70% of deliveries depending on the facility or country assessed. There are many possible ways of performing a caesarean section. Operation and operative techniques vary widely between obstetricians. The techniques used may depend on many factors including the clinical situation and the preferences of the operator. In the traditional technique the abdomen is opened by Pfannenstiel incision Uterus is closed in double layer, both visceral and parietal layer is closed, closure of rectus sheath is done by single vicryl suture, subcutaneous fat re-approximation using 2-0 plain catgut stitches, and individual silk sutures or metal staples for skin closure.

METHODS

This is a randomized controlled trial conducted at the Gynae Unit III, Lady Willingdon hospital Lahore. Inclusion criteria were indication for cesarean delivery

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DISCUSSION

The ideal surgical technique for cesarean section delivery continues to generate much debate in the obstetric community, particularly given the increasing number of procedures being performed globally. Numerous technical aspects are disputed and include type of abdominal incision, method of placental removal, single vs double layer uterine repair, need for peritoneal closure, and choice of suture materials^{1,2,3,4}. However, opinion is especially conflicting about the choice of extraabdominal vs intraabdominal uterine repair. A previous Cochrane review that addressed this issue was published in 2004 and was amended in 2006; it included 6 randomized studies and found that, with the

exception of lower febrile morbidity and longer hospital stay in the exteriorized group, there were no differences in outcomes between the groups⁵. They concluded that the available evidence was insufficient to draw conclusions about which method offers advantages. Since the publication of the Cochrane review, a number of large randomized trials on this issue have been reported^{6,7,8,9,10} which mandates a reevaluation of this clinical dilemma.

CONCLUSION

There is no significant difference between extra-abdominal and intra-abdominal repair of the uterine incision at cesarean delivery, but the number of sutures is lower and surgical time is shorter with extra-abdominal repair, although moderate and severe pain at 6 hours is less frequent with in situ uterine repair.

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