



COMPARATIVE STUDY BETWEEN UTERINE EXTERIORIZATION AND IN SITU REPAIR AT CESAREAN SECTION

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ABSTRACT

Aim of the study: To compare the influence of the two methods of cesarean- exteriorization and in-situ repair of uterus on cesarean morbidity.

Materials and Methods: A randomized prospective study was done over a period of one year (2011 – 2012) at the Institute of Obstetrics and Gynaecology Chennai. About 200 women undergoing primary cesarean section belonging to a lower social economic status were taken as subjects.

Results: 200 women were included in the study based on the inclusion and exclusion criteria. 100 women were randomized to exteriorization group and 100 women to in-situ repair of uterus. The mean age of the women in exteriorization group and in-situ group has no significant difference.

Conclusion: From our study, we concluded that exteriorization of uterus was better than in-situ repair in terms of reducing the duration of surgery and blood loss, while providing better visualization and early identification of atonicity, hematoma and tears. Hence, exteriorization of uterus seems to be preferred except in conditions like adhesions or surgeons inexperience.

KEYWORDS

cesarean sections, exteriorization, in-situ repair.

AIM OF THE STUDY:

To compare the influence of the two methods of cesarean- exteriorization and in-situ repair of uterus on cesarean morbidity.

MATERIALS AND METHODS:

This was randomized prospective study done over a period of one year (2011 – 2012) at the Institute of Obstetrics and Gynaecology Chennai. About 200 women under going primary cesarean section belonging to a lower social economic status were taken as subjects.

All the surgeries were through a Pfannensteil skin incision and a lower segment cesarean was performed. Uterus was closed in two layers using 2 chromic catgut. Rectus and skin were closed with one prolene.

Exclusion Criteria:

The exclusion criteria includes placenta previa, abruption placenta, anemia – Hb<10g/dl, previous cesarean, multiple pregnancy, chorioamnionitis. Rupture uterus, obstructed labour, prolonged rupture of membranes.

Ethical clearance:

The institutions ethical committee of Madras Medical College clearance was obtained before the commencement of study.

Repair and Exteriorisation:

After the delivery of the fetus and placenta, uterus is taken out of the abdominal cavity and placed over the mother's anterior abdominal wall and closure is done.

In-situ Repair:

After the delivery of the fetus and placenta, uterine incision is closed with uterus inside the abdominal cavity.

Intraoperative monitoring:

Two readings of pulse rate, mean arterial pressure, oxygen saturation were noted. The first reading was taken at the time of skin incision and the second at the time of uterine closure.

Postoperative Monitoring:

Half hourly pulse chart, second hourly temperature and blood pressure were monitored. Any excessive bleeding per vaginum was

looked for in the first 24 hours. Patients were given intravenous fluids, intravenous antibiotics. Clear fluids started 6 hours after surgery.

RESULT AND ANALYSIS:

200 women were included in the study based on the inclusion and exclusion criteria. 100 women were randomized to exteriorization group and 100 women to in-situ repair of uterus. The mean age of the women in exteriorization group and in-situ group has no significant difference.

DISCUSSION:

79% were primi and 21% were multigravida in the exteriorization group. 83% were primi and 17% were multi in in-situ group. Both the groups were similar in mean gestational age (38.5) with insignificant p value of 0.857. The mean pulse rate in the exteriorization group was 75.71 and 75.43 in in-situ group during skin incision. The mean pulse rate was 86.49 after exteriorization and 86.34 with in situ repair. Oxygen saturation of the tissue didn't have significance difference.

The average time taken for surgery in the exteriorization group was 32.81 minutes and for in-situ group it was 36.56 minutes. The average duration of hospital stay was almost the same and didn't have any significance.

Exteriorization technique was found to be associated with less postoperative hemoglobin fall which indicate less intraoperative blood loss and less time for surgery.

CONCLUSION:

While Edi-Osagie, Hershey and Quilligan reported similar blood loss and duration of surgery, we were able to demonstrate that exteriorization shortens duration of surgery and also reduces blood loss. There was better visualization of the lower uterine segment especially when perform during advance labour. Collection of blood obscured the surgical field in the in situ group. Any atonicity could be identified early and uterine massage could be directly given in exteriorization. Posterior surface of the uterus could be visualized easily for hematoma or tears. The presence of uterine anomalies might go unnoticed during in situ repair. During exteriorization uterine artery gets kinked and thus reducing the blood loss.

In conclusion with similar profile, but shorter operation time and less blood loss, exteriorization of uterus seems to be preferred except in conditions like adhesions or surgeons inexperience.

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