Intraoperative Insertion of Copper T380A IUCD During Cesarean Section: A Prospective Study on Safety and Outcomes

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Introduction

Postpartum contraception is a critical component of maternal healthcare. Immediate insertion of intrauterine contraceptive devices (IUCDs) during cesarean section presents a convenient opportunity to address unmet contraceptive needs.
This study assesses the efficacy, safety, and outcomes of Copper T380A IUCDs placed intraoperatively.

Methods

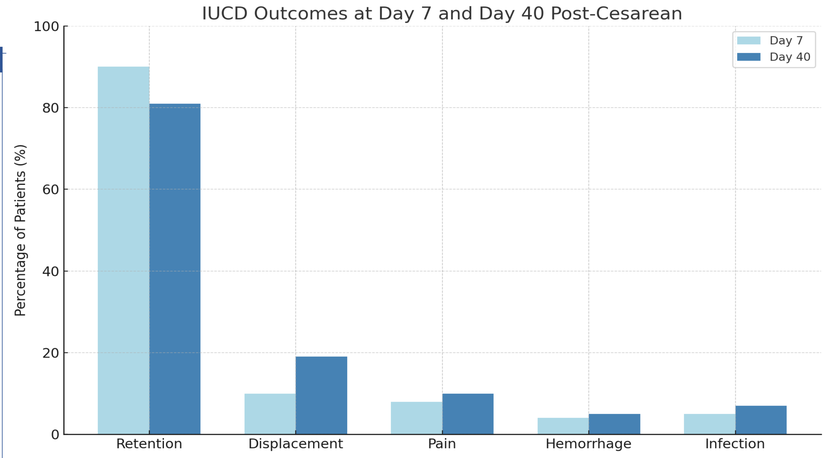
Design: Prospective study
Location: Ahmed Maher Teaching Hospital, Cairo, Egypt
Sample: 100 women undergoing caesarean section
Exclusion criteria: Uterine fibroids, uterine anomalies or any contraindication of Copper IUCD
Procedure: Counselling and informed consent obtained preoperatively for an IUCD to be inserted post-placental delivery.
Follow-up at 1 week and 40 days
Outcomes Measured: Retention rate, expulsion/displacement, pain, haemorrhage, infection
Analysis: Identification of risk factors for displacement

Step by step Technique

1. Preparation
Load the IUCD onto the inserter without trimming the threads.
Use a non-dominant hand to stabilise the uterus externally at the fundus
2. Access via hysterotomy
After delivering the baby and placenta, ensure uterine haemostasis and suture angles
3. IUCD placement at the fundus
Insert the IUCD through the hysterotomy directly to the fundus.
Pull back the inserter 2 cm, then push it firmly to the fundus, holding for ~10 seconds before releasing
4. Assistant stabilization
An assistant places a finger at the fundus to maintain IUCD position during inserter withdrawal
5. Thread guidance
While the assistant holds the IUCD, guide the threads through the lower uterine segment into the cervix using ring forceps.
Carefully remove the forceps, keeping them open to avoid dragging strings upward
6. Closure
Complete uterine and abdominal closure carefully, ensuring IUCD threads are not included in sutures
7. Trimming threads
Trim the threads in lithotomy position at ~ 2cm fro the external os.

results

- **IUCD Retention**:
  - Day 7: 90% in place
  - Day 40: 81% retained
- **Significant Risk Factors for Displacement**:
  - Maternal age ≥30
  - History of haemorrhage
  - Multiparity
  - Previous caesarean delivery
- **Complications**:
  - Infections: 7%
  - Severe haemorrhage: Rare
  - No significant influence from fundal height, fetal presentation, or previous surgeries



Conclusion

Intraoperative insertion of Copper T380A during caesarean section is safe, effective, and convenient. It shows high retention and minimal complications. Key predictive factors for displacement include maternal age, prior CS, and perioperative haemorrhage. Further multicentre research is recommended.

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