

Anesthetic Management and Surgical Outcome of Open Appendectomy with Incidental Salpingectomy in a 28-Week Pregnant Patient



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INTRODUCTION

- Non-obstetric surgery in pregnancy requires careful anesthetic planning that accounts for gestational age, pregnancy-related physiologic changes, and maternal-fetal risk. Regional anesthesia (RA) offers benefits over general anesthesia by reducing fetal drug exposure, avoiding airway complications, and maintaining maternal hemodynamic stability.¹
- We present a 28-week pregnant patient undergoing open appendectomy under combined spinal–epidural anesthesia, during which a necrotic fallopian tube was incidentally identified and removed.
- This case highlights key anesthetic considerations, including selection of regional anesthesia, perioperative fetal monitoring strategies, and the advantages and limitations of regional techniques for abdominal surgery in pregnancy.

CASE DESCRIPTION

- 32-year-old woman, 28 weeks gestation presented with acute abdominal pain, nausea, and fever.
- Imaging confirmed acute appendicitis, prompting urgent open appendectomy.
- Multidisciplinary decision (Anesthesia + OB + Surgery) to use combined spinal-epidural (CSE) to minimize fetal anesthetic exposure and avoid difficult airway risks associated with pregnancy.
- Intraoperatively, the surgical team identified a necrotic fallopian tube, prompting immediate salpingectomy due to infection and sepsis risk.
- Continuous fetal heart rate monitoring remained reassuring throughout the procedure.
- Postoperative recovery was uneventful with stable maternal and fetal outcomes.

DISCUSSION

- **Anesthetic Considerations in Non-Obstetric Surgery in Pregnancy**
 - Pregnancy-induced physiologic changes can mask hypovolemia in the setting of increased blood pressure and cardiac output.²
 - Aortocaval compression in the supine position can compromise venous return, thus correct positioning should be emphasized.³
 - Regional anesthesia reduces fetal exposure to volatile agents and avoids complications associated with complex airway management due to pregnancy-related airway edema.⁴
- **Fetal Monitoring During Non-Obstetric Surgery**
 - Although there are variations in guidelines, continuous fetal monitoring is recommended, particularly in the third trimester, to promptly identify fetal compromise.
- **Risk-Benefit Analysis of Surgical Timing and Anesthetic Choice**
 - Acute appendicitis during pregnancy requires prompt surgical management with increase in fetal morbidity and mortality when intervention is delayed.⁵
 - Regional anesthesia offers the advantages of maternal stability and decreased fetal exposure to anesthetic agents.⁶
- **Incidental Findings and Expanded Surgical Interventions**
 - Incidental finding of the necrotic fallopian tube posed significant infection risk.
 - Regional anesthesia ensured both maternal and fetal stability when the choice to remove the necrotic fallopian tube was made.
- **Maternal and Fetal Outcomes**
 - Hypotension is a risk of spinal anesthesia, which can be effectively managed with IV fluids and vasopressors to preserve ureteral perfusion.⁷
 - Pregnant patients who undergo regional anesthesia have lower rates of fetal distress compared to those receiving general anesthesia.¹

CONCLUSION

- Individualized anesthetic management and diligent monitoring are imperative in pregnant patients undergoing non-obstetric surgery.
- The use of spinal-epidural anesthesia in this 28-week pregnant patient provided optimal fetal and maternal stability, in an open appendectomy with incidental salpingectomy.
- Use of regional anesthesia, good positioning, and continuous fetal monitoring in this case ensured minimal risks while ensuring surgical success.

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