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Laparoscopic Cholecystectomy During Pregnancy: A Case Report

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Abstract
Cholelithiasis is one of the common biliary disorders that may complicate pregnancy, leading to significant maternal and fetal morbidity if not identified and treated in time. Hormonal and physiological changes during pregnancy increase the risk of gallstone formation and biliary stasis. This case report describes a 29-year-old female with acute abdominal pain and biliary colic diagnosed as cholelithiasis with adhesions, cholecystoduodenal fistula, and pericholecystic collection. She successfully underwent laparoscopic cholecystectomy with adhesiolysis, fistula repair, omentectomy, and drainage of the collection. Comprehensive postoperative nursing care and obstetric monitoring were provided, resulting in a smooth recovery and safe discharge. This case highlights the importance of multidisciplinary management and evidence-based nursing interventions for surgical conditions in pregnancy.

Keywords: *Cholelithiasis, Pregnancy, Laparoscopic cholecystectomy, Nursing Interventions, Fistula.*

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I. Introduction

Cholelithiasis, or gallstone formation in the gallbladder, is a common gastrointestinal disorder during pregnancy due to elevated estrogen and progesterone levels, which promote biliary stasis. The prevalence of gallstone disease in pregnant women varies but poses unique challenges due to potential complications for both mother and fetus. Management requires careful planning between surgical and obstetric teams. While conservative management is often attempted, surgical intervention such as laparoscopic cholecystectomy is considered safe in the second trimester. This case presents a pregnant woman with symptomatic cholelithiasis complicated by adhesions and cholecystoduodenal fistula, managed successfully with surgical and nursing interventions.

II. Case Report

A 29-year-old female, gravida 4 para 1 live 1 abortion 2 (G4P1L1A2), presented with severe right hypochondrial pain for 2 days, vomiting, flatulence, and fatty dyspepsia. She had a history of previous LSCS 2.5 years back and no chronic medical illness. The patient was 13+4 weeks pregnant with a single live intrauterine fetus and was Rh negative. She had received prophylactic injection Proluton 500 mg intramuscularly. On examination, her vitals were stable with abdominal tenderness in the right hypochondrium. Ultrasound findings suggested gallstones, and further evaluation confirmed **cholelithiasis with adhesions, cholecystoduodenal fistula, and pericholecystic collection**.

She underwent **laparoscopic cholecystectomy with adhesiolysis, cholecystoduodenal fistula repair, omentectomy (benign tumor excision), and drainage of pericholecystic collection** under obstetric support. Postoperatively, she was managed with IV fluids, antibiotics (Inj. Augmentin, Inj. Neomal), proton pump inhibitors, analgesics, and kept NPO initially. Obstetric prophylaxis was continued with Cap. Susten, Tab. Duvadilan, and Inj. Proluton. At discharge, she was prescribed **T. Metrogyl 200 mg BD for 3 days, T. Taxim-O 200 mg, T. Crocin, T. Duvadilan Retard 40 mg BD, T. Dyroboon 10 mg BD, Cap. Susten 300 mg BD for 10 days, and Inj. Proluton Depot 500 mg IM every Tuesday and Friday**. She was advised a **fat-free diet avoiding fatty meals for 4 weeks**. The patient recovered uneventfully, with stable maternal and fetal condition.

III. Nursing Interventions

1. **Acute Pain related to inflammatory process**
   - Assessed pain intensity, duration, and location.
   - Encourage relaxation and deep breathing techniques.

o Provide comfort measures such as semi-Fowler's position.
o Administered prescribed analgesics and provided comfortable positioning
2. **Risk for Infection related to surgical incision and invasive devices**
o Monitored vital signs and lab values.
o Maintained aseptic technique during dressing changes.
o Educated the patient on wound care and hand hygiene.
o Avoid visitors frequently
3. **Imbalanced Nutrition: Less than body requirement related to NPO status**
o Administer IV fluids as per order, Monitor I/O chart
o Monitored dietary intake and initiated a soft, fat-free diet post-surgery.
o Encouraged small, frequent meals and dietary counseling.
o Monitor weight gain in relation to pregnancy.
4. **Risk for Preterm Labour related to surgical stress**
o Monitored uterine activity and fetal well-being.
o Collaborated with obstetrician for prophylactic medications (susten, duvadilan, proluton).
o Provided reassurance and emotional support.
5. **Knowledge Deficit related to disease condition and lifestyle modification**
o Educated the patient and family on gallstone disease, surgery, and pregnancy precautions.
o Reinforced compliance with medications.
o Counseled on low-fat diet and long-term lifestyle modifications.

IV. Conclusion

Cholelithiasis during pregnancy is a challenging clinical condition that requires prompt recognition and a multidisciplinary approach. This case emphasizes that laparoscopic cholecystectomy in the second trimester, even in complicated cases with adhesions and fistula, can be performed safely with good outcomes. Effective nursing interventions focusing on pain relief, infection prevention, nutritional support, and maternal–fetal monitoring play a vital role in recovery. Comprehensive care contributed to successful maternal and fetal outcomes in this case.

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Nil.

Conflict of Interest
The authors declare no conflict of interest.

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