

Management of Acute Cholecystitis During Pregnancy



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INTRODUCTION: Management of cholecystitis during pregnancy balances the risk of adverse obstetric outcomes (AOO; fetal loss and preterm delivery) with or without operation. Guidelines recommend early cholecystectomy (EC), but the risk of AOO across trimesters has not been characterized. We compared AOO between patients presenting with cholecystitis in different trimesters who did and did not receive EC.

METHODS: Retrospective cohort study of cholecystitis during pregnancy using the Truven MarketScan Databases (2007-2016). AOO, trimesters (T1, T2, T3), and EC (≤ 7 days of presentation) were defined by outpatient and inpatient claims. Propensity score adjustment was used to account for selection bias.

RESULTS: Among 5,123 pregnant patients with cholecystitis, 36.8% underwent EC (45.1% of those presenting in T1, 48.5% in T2, and 15.5% in T3). In the unadjusted analysis, AOO rates were similar between patients presenting in T1 and T3 who did and did not receive EC (38.9% vs 36.6%, 12.2% vs 14.7%, T1, T3, respectively; $p > 0.05$). However, EC in patients presenting in T2 was associated with lower rates of AOO (12% vs 21.3%; $p < 0.001$). Propensity adjustment also found that the odds of AOO were lower in EC group only in T2 (odds ratio, 0.59; 95% CI, 0.45 to 0.79; $p < 0.001$). Similar results were found comparing EC with delayed cholecystectomy (> 7 days) or no operation during pregnancy.

CONCLUSIONS: The effect of EC on AOO appears to vary across trimesters with a significant effect identified in T2 and the potential for an underpowered analysis (T1 and T3). These findings can help individualize obstetric risk assessment related to cholecystectomy in different trimesters.

Management of Complicated Appendicitis During Pregnancy: A Nationwide Analysis



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INTRODUCTION: Nonoperative management of complicated appendicitis has been accepted as an alternative to immediate operation in the general population. However, no consensus exists on optimal management in pregnant patients. This study aimed to compare clinical outcomes for nonoperative and operative management in complicated appendicitis during pregnancy.

METHODS: The National Inpatient Sample data (2003-2015) were extracted for analysis. Pregnant patients with complicated appendicitis were categorized into 3 groups: immediate operation < 24 hours (IO), successful nonoperative management (SNO), and failed nonoperative management with delayed operation (FNO). Fetal and maternal complications, as well as length of stay (LOS) were compared using multivariate analyses adjusting for patient and institutional characteristics.

RESULTS: A total of 8,938 pregnant women with complicated appendicitis satisfied inclusion criteria (median age 27 years, interquartile range 22 to 32 years). Of those, 82.1% underwent IO, 10.6% SNO, and 7.2% FNO. In multivariate analysis, pregnant patients were more likely to develop preterm labor, delivery, and abortion with SNO (odds ratio [OR] 1.322; $p = 0.001$) and FNO (OR 3.178; $p < 0.001$) compared with IO. Maternal sepsis was more common in patients with SNO (OR 2.200; $p < 0.001$) and FNO (OR 4.468; $p < 0.001$). Compared with IO, LOS was longer for both SNO (regression coefficient = 0.084; $p < 0.001$) and FNO (regression coefficient = 0.355; $p < 0.001$).

CONCLUSIONS: Significantly better fetal and maternal outcomes were observed in the IO group compared with nonoperative management for complicated appendicitis during pregnancy. In addition, nonoperative management often failed and required delayed appendectomy, which was significantly associated with worse clinical outcomes.

Mesh: A Four-Letter Word When Performing Abdominal Surgery in Prior Hernia Repair Patients?



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INTRODUCTION: Mesh reinforcement of hernia defects protects against recurrence but might confer increased risk for complications during subsequent abdominal surgery (AS). We sought to evaluate the risks associated with prior incisional hernia repair (prior-IHR) and mesh on outcomes after common AS operations.

METHODS: Patients undergoing AS operations, including bariatric, small/large bowel resection, cholecystectomy, prostatectomy,