



Western Surgical Association 2020 Annual Meeting

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4:00pm – 6:15pm Pacific Time
– Virtual Meeting --

www.westernsurg.org | wsa@lp-etc.com | 913.402.7102

4. IMPACT OF TRIMESTER ON CLINICAL OUTCOMES FOLLOWING LAPAROSCOPIC CHOLECYSTECTOMY DURING PREGNANCY

Presenter: Vincent Cheng MD | Los Angeles County + University of Southern California Medical Center

V Cheng, K Matsushima, M Ashbrook, K Matsuo, M Schellenberg, K Inaba, K Sandhu

Background: Laparoscopic cholecystectomy during pregnancy has been shown to be both safe and effective. Conventional philosophy promotes the second trimester as the ideal time for surgical intervention. However, literature supporting this belief is sparse. The purpose of the present study is to examine the impact of trimester on clinical outcomes following laparoscopic cholecystectomy during pregnancy.

Methods: The National Inpatient Sample was queried for all pregnant women who underwent laparoscopic cholecystectomy between October 2015 and December 2017. Patients were categorized by trimester using the International Classification of Diseases (Tenth Revision) codes. Univariate analysis was used to compare baseline patient and hospital characteristics. Multivariate regression analysis adjusted for differences in baseline patient and hospital characteristics to quantify the impact of trimester on clinical outcomes.

Results: A total of 780 pregnant women who underwent laparoscopic cholecystectomy satisfied inclusion criteria. Of these patients, 210 (26.9%) women underwent cholecystectomy during the first trimester while 373 (47.8%) and 197 (25.2%) underwent cholecystectomy during the second and third trimesters, respectively. The median age of all patients was 27 years (interquartile range 23-31). Compared to cholecystectomy during the second trimester, cholecystectomy during the first trimester was not associated with higher rates of maternal or fetal complications (odds ratio [OR] 0.831, $p=0.568$). However, cholecystectomy during the third trimester was associated with a higher rate of preterm delivery (OR 41.908, $p<0.001$) and overall complications (2.902, $p<0.001$). Similarly, no difference between the first and second trimesters was identified for total hospital charges (regression coefficient [RC] 0.042, $p=0.154$), but the third trimester was associated with higher total hospital charges (RC 0.094, $p=0.001$).

Conclusion: Our data suggest that laparoscopic cholecystectomy can be performed in the first trimester without an increased risk of postoperative maternal and fetal complications. In contrast, laparoscopic cholecystectomy during pregnancy should not be delayed until the third trimester.