

Risk Factors and Rates of Cholecystectomy During Readmission Following Bariatric Surgery

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Background: With the increasing prevalence of obesity and the rise of bariatric surgery procedures being performed, quality metrics such as associated hospital readmission and complications are of significant clinical interest. Symptomatic biliary disease is a well-established sequela of the rapid weight loss following bariatric surgery. We sought to assess the rate of cholecystectomy performed during readmission after bariatric surgery and to identify associated risk factors and comorbidities.

Methods: The Nationwide Readmission Database from 2010-2015 was queried for patients who previously had bariatric surgery and underwent a cholecystectomy during hospital readmission. Multivariate logistic regression was used to determine the odds ratios (OR) for the outcomes of interest.

Results: A total of 886,596 patients who had bariatric surgery were reviewed and of which, 5,390 patients (0.6%) had a cholecystectomy performed during readmission. There were 1,240 patients (23.0%) who had a cholecystectomy during readmission at a different hospital. The majority of patients readmitted who underwent a cholecystectomy were female (84.5%) and had private insurance (57.9%). The comorbidities associated with the highest OR for cholecystectomy during readmission were chronic anemia (OR 2.11, $p=0.007$), diabetes with chronic complications (OR 1.86, $p<0.001$), and coagulopathy (OR 1.82, $p<0.001$). Patients ≥ 65 years of age (OR 0.42, $p<0.001$), sleeve gastrectomy patients (OR 0.72, $p<0.001$), and patients with a CCI ≥ 2 (OR 0.83, $p=0.002$) were less likely to have a cholecystectomy during readmission.

Conclusion: Only a small percentage of bariatric surgery patients will undergo a cholecystectomy in their readmission period even when accounting for readmissions across other hospitals. This study elucidates those patients at higher risk for needing a cholecystectomy, however prophylactic cholecystectomy during bariatric surgery would not provide significant benefit or improve resource utilization.