

### **Laparoscopic Cholecystectomy in Cirrhotic Patients: A Retrospective Study**

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#### **Abstract**

*Introduction:* Cirrhosis is a leading cause of morbidity and mortality around the world. Although cirrhotic patients are considered to have a higher risk for surgical procedures than non-cirrhotic ones, there are certain pathologies such as gallstones cholecystitis that cannot be treated otherwise. The focus of this study is to evaluate the main characteristics of the patients with lithiasic cholecystitis and liver cirrhosis and to assess if there is a correlation between them and postoperative morbidity evaluated with Dindo-Clavien classification.

*Material and methods:* This is a retrospective study. The database from General Surgery Department of Fundeni Clinical Institute was queried between 2014-2018 using as key words “cirrhosis” and “cholecystitis”. The initial interrogation revealed 57 cases out of which 3 were excluded since other resections were associated.

*Results:* This study identified that Dindo-Clavien classification positively correlates with the open approach (0.405, p=0.002), emergency surgery (0.599, p=0.000), acute cholecystitis (0.476, p=0.000), high MELD score (0.291, p=0.008) and Child score (0.346, p=0.007) and furthermore with high levels of total bilirubin (0.220, p=0.047), high INR (0.286, p=0.010), the presence of ascites (0.303, p=0.022) and portal hypertension (0.266, p=0.044). It also correlates negatively with the levels of hemoglobin (-0.295, p=0.044).

*Conclusion:* Adequate estimation of perioperative mortality and morbidity is generally limited by the retrospective nature of most studies and the patient’s selection criteria. Emergency surgery, acute cholecystitis and the open approach carry the highest risk for unfavorable results of cholecystectomy in cirrhotic patients.

**Key words:** cirrhosis, cholecystitis, laparoscopy, Child-Pugh, MELD