Incidence of Choledocholithiasis and Its Impact on Outcomes in Patients Hospitalized With Acute Cholecystitis: A Nationwide 5-Year Analysis
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INTRODUCTION: Patients with acute cholecystitis (AC) often present with laboratory and imaging findings suggestive of choledocholithiasis (CDL). There are no population studies to assess the incidence of CDL and its impact on outcomes in patients with AC. In this nationwide study, we examine the frequency of CDL in patients with acute cholecystitis, and examine the effect of choledocholithiasis on in-hospital mortality, costs, and 30-day outcomes.

METHODS: We analyzed the nationwide readmission database (NRD) from 2010 through 2014. We identified all admissions of adult patients with the principal diagnosis of acute cholecystitis. We compared hospitalizations with acute cholecystitis and choledocholithiasis (AC+CDL) with those with AC alone (AC group). Bivariate analysis was performed to compare the demographics, characteristics, and in-hospital and 30-day outcomes between the two groups.

RESULTS: There were total of 552,207 hospitalizations for acute cholecystitis, of which 408,847 (74%) had acute cholecystitis alone (AC group) and 143,360 (26%) had coexistent choledocholithiasis (AC+CDL group). Characteristics of the groups are shown in Table 1. Patients with AC+CDL were more likely males and older than 65 (P, 0.0001). Patients with AC+CDL were more likely to have abnormal liver enzymes (1% vs. 0.7%), cholangitis (4.4% vs. 1.1%), acute pancreatitis (11.6% vs. 7.7%) and septic shock (1.7% vs. 1.1%, all comparisons, P, 0.0001). ERCP was performed more commonly in AC+CDL group compared to the AC group (26.7 vs. 3.7%, P, 0.0001). Same admission cholecystectomy was more common in AC group (84% vs 38%, P, 0.0001). Patients with AC+CDL had longer length of stay (4.9 vs. 4.1 days, P, 0.0001) and higher hospital costs ($15,966 vs $15,202, P, 0.0001). The AC+CDL group had higher in hospital and 30-day post discharge mortality (4.5% vs. 1.2%, P, 0.0001) and 30-day readmission (13.6% vs. 8%, P, 0.0001), compared to the AC group.

CONCLUSION: Approximately one in four patients with acute cholecystitis has coexistent choledocholithiasis. Presence of choledocholithiasis in acute cholecystitis patients is associated with increased length of stay, hospitalization costs, in-hospital and 30-day mortality and readmissions. Further studies are needed to develop predictor models to identify coexisting CDL in patients with AC for timely diagnosis and optimizing management aimed at improving outcomes in this high risk subset of patients.

Acute Pancreatitis Outcomes May Not Be Worse in Post-Transplant Patients
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