CONCLUSION: Liver and pancreatic cancer related hospitalizations in the USA has risen for the last decade, and so has the intent-to-cure procedures for these malignancies. The curative liver transplant and Whipple procedure have almost tripled and doubled in number, respectively. However, inpatient mortality from both liver and pancreatic cancer has decreased only by 3% in the past decade and mortality rates remain at 8%. Future strategies to optimize liver and pancreatic cancer screening and medical/surgical treatment is urgently needed in order to decrease liver and pancreatic cancer related admissions and mortality.

Prognostic Factors in Outcomes of Endoscopic Therapy for Biliary Leak Repair

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INTRODUCTION: Despite advances, there is a 3–18% risk of bile leak after hepatobiliary surgery. Sepsis and repeat surgery have up to a 38% mortality rate. Therefore, endoscopic repair is preferred. This study evaluates efficacy of endoscopy and prognostic factors in success.

METHODS: Of 41 patients who had endoscopic retrograde cholangiopancreatography (ERCP) for suspected post-surgery bile leak between 2015–19 at our hospital, 34 met inclusion with confirmed leak. Charts were reviewed for demographics, clinical and surgical parameters, ERCP findings, time to detection, to ERCP, to clinical improvement, and to resolution of bile leak. Success is defined as procedural (stent placement), clinical (improved leak), and resolution (no leak on follow-up). Two-tailed t test and chi square test were used in statistical analysis.

RESULTS: Most patients were male (82.5%), average age 38, BMI 27, and pre-op CCI 0 (70.6%). 97.1% had emergent surgery and 67.6% had laparotomy; reasons and surgery types are in Table 1. In diagnosis, 70.6% of leaks were detected solely clinically (88% by bile in the JP drain, 21% had abdominal pain, 15% had fever, and 15% in the OR). 2.9% were found only on radiology and 26.5% were noted clinically and in imaging. Average surgery to diagnosis time was 8 days, from diagnosis to ERCP 4 days, to clinical success 8 days, and to confirmed resolution 98 days. 73.5% of leaks were identified at intrahepatic, 23.5% at cystic, and 3% at pancreatic ducts. After first ERCP, 28/34 patients had procedural and 27/34 had clinical success. 7/34 patients required further intervention following ERCP; 6 had CT guided drain and 1 had repeat surgery (Figure 1). 26/34 had confirmed resolution on repeat ERCP, while the other 8 were lost to follow-up. 82.4% had no complications after ERCP; main complications were sphincterotomy site bleed, pancreatitis, further biliary injury, and infection. Median length of stay was 23.5 days among all patients.

CONCLUSION: This study supports endoscopic repair in post-operative bile leak as safe and effective as all patients with follow-up ERCP had resolution. Surgery type and leak size may predict success. Bile leak after hepatic artery embolization/hemostasis (P = 0.024) and large bile leak (P = 0.007) were significantly more likely to need post-ERCP procedure (Table 2). A larger cohort will guide how to optimize care and warrants study.