Common Costs in Rare Cases of Recurrent Biliary Pancreatitis Post-Laparoscopic Cholecystectomy

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Abstract

Introduction:
Recurrent Pancreatitis is a rare complication of Laparoscopic Cholecystectomy (LC) for the treatment of Gallstone Pancreatitis.1 The most common etiology is a retained gallstone in the Common Bile Duct (CBD) remnant following surgery.2,3 Such cases of choledocolithiasis are often found on endoscopic ultrasound (EUS), endoscopic retrograde cholangiopancreatography (ERCP), or Magnetic resonance cholangiopancreatography (MRCP) prior to the LC.4 Previous literature has shown that most cases of biliary causes of pancreatitis following LC may present with isolated abdominal pain as the chief complaint in the absence of any other symptoms, thus a high index of suspicion is warranted for pancreatitis following LC in the acute post-operative period.5 In this case presentation, we present a rare case of recurrent biliary pancreatitis 2 months after LC in which no gallstone nor sludge was found on MRCP prior to the LC, nor ERCP on readmission. This case also serves to highlight the current economic climate in which patients find themselves prioritizing the financial burden7,8 of a hospital admission for elective procedures.

Case Presentation:
This is a 32-year-old female complaining of abdominal pain for one day that was associated with nausea and chills since early this morning. She has a past medical history of Gallstone Pancreatitis, treated two months ago with Laparoscopic Cholecystectomy (LC) following an MRCP that revealed Cholelithasis without CBD dilation nor Choledocolithiasis. She presented to our Emergency Department (ED) via ambulance transfer from an outside facility for the management of possible recurrent pancreatitis with a measured Lipase of 25,878u/L, AST/ALT of 526/611u/L, Alkaline Phosphatase of 230u/L, CRP of 4.4, and a CT abdomen that showed fat stranding in the pancreas. Together in the setting of acute abdominal pain, these lab and imaging findings were diagnostic for mild, acute pancreatitis, warranting her transfer to our facility for management as her initial gallstone pancreatitis was treated here 2 months prior.
Upon questioning in our ED, she reported that the pain began suddenly, and woke her up around 3am. She described the pain as being both a burning sensation in her back and achy in her abdomen. She reports the pain started as a 7/10 this morning. She states that it is worse with movement, but is alleviated by lying down on her stomach. Her vital signs were afebrile and hemodynamically stable: Temperature: 98.1F, Blood Pressure 103/69(79)mmHg, Pulse 61bpm, Respiration Rate 18 br/min, SpO2 97% on room air, and her BMI was calculated to be 28kg/m2. On physical exam, her abdomen was acutely tender to palpation in the epigastric area, without any obvious trauma, bruising or lesions. The rest of the exam revealed no abnormalities. Pending confirmatory lab results, she was made NPO and started on aggressive IV fluids of Lactated Ringer's (LR) at a rate of 275cc/hr. Her pain and nausea were treated with morphine 2mg IV, toradol 30mg IV, and Zofran 4mg IV. On admission to the floor, she reported her pain had already began to resolve and was a 0/10. After 1200cc of LR, her labs were repeated and showed appropriate trending down: Lipase 11,463u/L, AlkPhos 225u/L, and AST/ALT: 375/574u/L. An Additional labs were ordered to identify the etiology of the pancreatitis. LDH showed marked elevation at 478u/L, but her Lipid profile, CBC, and CMP were all within normal limits. GI was consulted and decided to perform an ERCP when her pain on physical exam and enzymes normalized on day 3 of her admission. ERCP revealed normal findings with the exception of a possible Sphincter of Oddi Dysfunction.

	Final Diagnosis: Biliary Pancreatitis secondary to Sphincter of Oddi Dysfunction versus passed CBD stone Management: Our patient received the appropriate aggressive IV Fluid Resuscitation inpatient for the Treatment of Acute Pancreatitis prior to her ERCP, kept NPO, and was subsequently treated via sphincterotomy during her ERCP. Patient was discharged following the procedure and told to follow up outpatient if needed. This case also presents the financial complications inherent to hospital admissions for patients who are otherwise stable pending surgical intervention in the current economic climate of frequent bankruptcies due to rising medical costs. Further discussion is warranted to assess the potential risks and benefits for outpatient ERCP for recurrent biliary pancreatitis in the post-acute period following the definitive treatment of LC.
Learning Objectives	1) Early LC following diagnosis within 24-72 hours reduces complications, hospital stay, biliary disease recurrence, and readmissions. 2) For recurrent biliary pancreatitis following LC, the index of suspicion for a retained CBD stone should be high in recurrent abdominal pain up to 3 years following LC.
References and Resources	1) Vagholkar, Ketan & Pawanarkar, Amish & Vagholkar, Suvarna & Pathan, Shamshershah & Desai, Rohini. (2016). Post cholecystectomy pancreatitis: a misleading entity. International Surgery Journal. 941-943. 10.18203/2349-2902.isj20161171. 2) Lee DH, Ahn YJ, Lee HW, Chung JK, Jung IM. Prevalence and characteristics of clinically significant retained common bile duct stones after laparoscopic cholecystectomy for symptomatic cholelithiasis. Ann Surg Treat Res. 2016;91(5):239–246. doi:10.4174/astr.2016.91.5.239 3) Chowbey P, Sharma A, Goswami A, et al. Residual gallbladder stones after cholecystectomy: A literature review. J Minim Access Surg. 2015;11(4):223–230. doi:10.4103/0972-9941.158156 4) Kaltenthaler EC, Walters SJ, Chilcott J, Blakeborough A, Vergel YB, Thomas S. MRCP compared to diagnostic ERCP for diagnosis when biliary obstruction is suspected: a systematic review. BMC Med Imaging. 2006;6:9. Published 2006 Aug 14. doi:10.1186/1471-2342-6-9 5) Sahoo MR, Kumar A. Stump stone 6 years after cholecystectomy: a possibility. BMJ Case Rep. 2013;2013:bcr2012007957. Published 2013 Feb 1. doi:10.1136/bcr-2012-007957 6) Moody, N. , Adiamah, A. , Yanni, F. and Gomez, D. (2019), Meta-analysis of randomized clinical trials of early versus delayed cholecystectomy for mild gallstone pancreatitis. Br J Surg. doi:10.1002/bjs.11221 7) Department of Health. (2019) “Protection from high medical costs.” Retrieved from https://www.healthcare.gov/why-coverage-is-important/protection-from-high-medical-costs/. 8) Dobkin C, Finkelstein A, Kluender R, Notowidigdo MJ. Myth and Measurement - The Case of Medical Bankruptcies. N Engl J Med. 2018;378(12):1076–1078. doi:10.1056/NEJMp1716604
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