Mirizzi’s syndrome presenting after laparoscopic cholecystectomy

A 43-year-old woman experienced right upper quadrant abdominal pain, and her serum liver chemistry determinations were elevated in an obstructive pattern. CT scan revealed gallbladder hydrops and cholelithiasis. She underwent laparoscopic cholecystectomy and was also found to have cholecystitis. Bilious output from the patient’s drain developed, and ERCP showed a bile leak from a dilated cystic duct remnant with an impacted stone that compressed the common bile duct with resulting proximal dilatation consistent with type I Mirizzi syndrome (A). The common bile duct distal to the level of extrinsic compression from the stone was decompressed. With the use of a lithotripter basket, the stone was captured, crushed, and removed in pieces through the cystic duct orifice (B). A stent was placed in the common bile duct to treat the leak, and the patient had cessation of biliary drainage and no further related problems (C). Mirizzi syndrome, a rare clinical entity in and of itself, is virtually always identified preoperatively or intraoperatively. Postoperative Mirizzi syndrome is exceptionally rare.

DISCLOSURE

Dr Adler is a consultant for Boston Scientific and Merit. The other author disclosed no financial relationships relevant to this publication.

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http://dx.doi.org/10.1016/j.gie.2015.09.025

Commentary

Mirizzi’s syndrome (MS), or functional hepatic syndrome, was named after the Argentinean surgeon Pablo Luis Mirizzi in 1948. It is a rare cholelithiasis adverse event consisting of common hepatic duct obstruction secondary to a gallstone impacted in the cystic duct or Hartmann’s pouch. After the Csendes classification, MS can be divided into 4 types: type 1: compression of the common hepatic duct by the impacted stone; type 2: presence of a cholecistobiliary fistula affecting a third of the bile duct circumference; type 3: the fistula affects two thirds of the common bile duct diameter; and type 4: total destruction of the common hepatic duct wall by the fistula. During the initial clinical approach, the diagnosis of MS can be easily missed because of the absence of pathognomonic symptoms. Abdominal pain, jaundice, and abnormal liver enzymes support the diagnosis, but these findings are very nonspecific and are not consistently present.

Thus, the preoperative diagnosis mainly depends on the imaging techniques. Abdominal ultrasonography is the most frequent modality used for the initial evaluation of gallstones, but it lacks sensitivity. CT scan accurately identifies the presence of an abscess or associated malignancy; however, its sensitivity for biliary duct characterization is also limited. Hence, magnetic resonance cholangiopancreatography (MRCP) and ERCP are currently the best diagnostic methods, with similar high sensitivity and specificity for intraductal visualization. In this interesting case, a type 1 MS was missed during both the preoperative and the intraoperative evaluations. On the basis of the limited accuracy of the CT scan, it does not seem unlikely that this finding was not initially reported, considering it was a type 1 MS and no fistula or extra biliary involvement was present. Also, the laparoscopic approach probably prevented a more thorough intraoperative exploration of the biliary area, facilitating passage of the gallstone unnoticed during the surgery. Overall, this case highlights the vast potential of ERCP for both the diagnosis and the treatment of uncomplicated MS. As a diagnostic tool, ERCP can easily identify the path
and insertion of the cystic duct and thereby reveal whether any risk factors for MS are present, and also visualize any impacted gallstones in the ducts. Recently, there has been an increased trend in the use of this minimally invasive technique for the therapy of MS in high-risk surgical patients. As exemplified in this case, ERCP allows removal of the impacted stones by lithotripsy and stenting the biliary tract to solve any possible leaks. Therefore, ERCP can be a safe alternative to surgery in selected patients. However, because of its high dependence on the operator’s skill, this therapy should remain limited to centers with extensive experience in the endoscopic management of the biliary tract.

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Pancreatic duct ascariasis

A 35-year-old woman was admitted to the hospital with severe abdominal pain radiating to the back, associated with emesis. Clinical examination revealed a febrile patient with abdominal tenderness. The results of laboratory evaluation were notable for elevated leukocyte count and elevated amylase and lipase. Abdominal ultrasonography demonstrated a bulky pancreas. EUS was done to determine the cause of the pancreatitis and revealed a bulky pancreas with a linear hyperechoic structure without an acoustic shadowing in the pancreatic duct (A, B). The patient was initially treated with intravenous fluids, analgesics, antibiotics, and anthelminthics. However, in view of her persistent severe pain, emergent ERCP was done. On side-view duodenoscope, a worm was seen extruding from the