Endoscopic management of an unusual biliary-enteric fistula

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CASE REPORT

A 65 year old man underwent laparoscopic cholecystectomy. Five days later, he developed severe right upper quadrant pain, fevers, and hyperbilirubinemia. He also developed a single episode of melena that was self limited. A HIDA scan was performed and appeared to show a bile leak but was atypical in appearance with contrast entering the bowel via what appeared to be an unusual route. CT scan did not reveal a clear biloma and no evidence of bile collecting in the abdomen was seen. Based on the HIDA scan, ERCP was performed. ERCP initially appeared to disclose a bile leak from the cystic duct remnant. (Figure 1) Further injection demonstrated passage of contrast from the cystic duct remnant and directly into a loop of small bowel just inferior to the undersurface of the liver, consistent with a spontaneous biliary-enteric fistula. (Figure 2) An 8.5 French × 10 cm plastic biliary stent was placed and the patient did well post procedure. Six weeks later, the follow up ERCP demonstrated healing of the biliary-enteric fistula (Figure 3) and the patient has done well thereafter.

Biliary-enteric fistulae are rare clinical entities. They can occur spontaneously or following surgery, often in the setting of GI cancers such as cholangiocarcinoma and/or gallbladder cancer. Biliary-enteric fistulae can also develop following

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Our case was unusual in several respects. First, the fistula appeared to communicate with the mid to distal small bowel and not the duodenum or colon, both of which are much more commonly reported. Second, the fistula appeared to arise not from the gallbladder itself but from the cystic duct remnant (and possibly a small piece of remnant gallbladder). There is no evidence that the fistula was present before or at the time of surgery. The melena our patient experienced was hypothesized to have occurred at the time the fistula became patent with the bowel lumen, with some self-limited bleeding. Lastly, our patient was treated endoscopically with a temporary biliary stent as if he had a standard bile leak and did well. No surgery was needed and the patient has done well with no evidence of biliary or bowel problems in the five years following the surgery, proving that in some cases endoscopic therapy alone is sufficient and that surgery can be avoided in some cases.

REFERENCES