

Spontaneous common hepatic duct perforation in an adult: a case report

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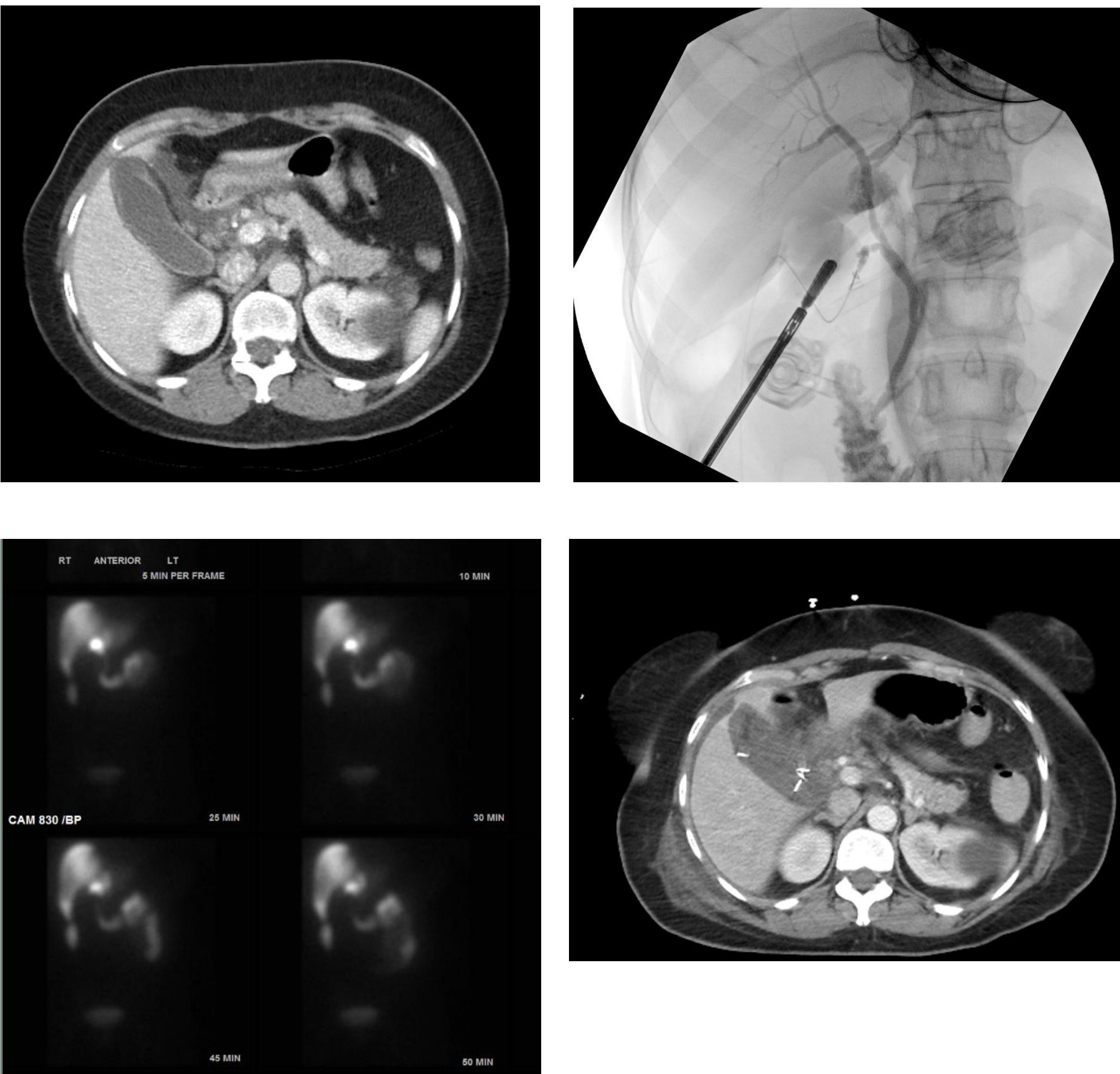
Abstract

Spontaneous perforation of the extrahepatic bile ducts is a rare entity with most cases occurring due to an underlying pathology in the infant population. Less than 40 cases of spontaneous common hepatic duct perforation have been reported in the literature to date. We present a rare case and atypical presentation of a 44-year-old female with a delayed finding of a spontaneous common hepatic duct perforation. She initially presented with clinical findings of gallstone pancreatitis and was subsequently taken to the operating room for laparoscopic cholecystectomy with findings of bile peritonitis. At that time, there was concern for hollow viscus injury, however, there was no clear source identified for the bile peritonitis. Her hospital course was complicated by a bile leak, abscess formation, and a take back to the operating room in which a common hepatic duct perforation was identified. Patient eventually required hepaticojejunostomy reconstruction. The goal of this case report is to present a rare case of spontaneous common hepatic duct perforation and to discuss the importance of prompt diagnosis, the challenges of diagnosis, and surgical management.

Case presentation

- This is a 44-year-old female with no past medical history and past surgical history of lithotripsy who presented with abdominal pain in the right hemiabdomen which radiated to her back. She had prior episodes of this pain which had resolved on its own. She had associated the pain with certain foods.
- On exam her abdomen was soft, tender in the right upper and right lower quadrants with negative murphy’s sign, no peritoneal signs.
- Labs were remarkable for WBC of 12.5, total bilirubin 1.3, AST/ALT 467/277, lipase 462, amylase 1138
- She was diagnosed with gallstone pancreatitis. Plan was for laparoscopic cholecystectomy with intraoperative cholangiogram.

Imaging



Discussion

Most spontaneous perforation of bile ducts have been described in children due to congenital abnormalities. The exact cause is unknown and could be due to weakness in the walls of the bile ducts or ischemia. Another cause could be due to increase in pressure in the biliary system due to stones/strictures/masses. The site of perforation is usually extrahepatic. The most common location of spontaneous extrahepatic duct perforations is on the anterior wall of the common bile duct and the junction between the cystic duct and the common hepatic duct.

Discussion (continued)

Spontaneous perforation of the bile ducts is a difficult entity to diagnose promptly. In our case it was not identified in the initial operation and was only diagnosed at the second operation due to abscess formation. The diagnosis many times is not obvious and in many cases is made at the time of laparotomy when bile peritonitis is encountered. In cases where you have a higher suspicion of this pathology, an ERCP should be offered for diagnostic and therapeutic purposes.

Conclusion

In summary this is a rare case of a 44-year-old female who had a spontaneous perforation of the common hepatic duct which was initially diagnosed as gallstone pancreatitis. She eventually required surgical intervention with a hepaticojejunostomy reconstruction. This case highlights the challenges of diagnosis and important features that can prompt further investigation.

References

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