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Original Research Paper

General Surgery

CHOLEDOCHOLITHIASIS WITH SPONTANEOUS CBD PERFORATION PRESENTED WITH BILIARY PERITONITIS – AN UNCOMMON EVENT

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ABSTRACT

BACKGROUND: Spontaneous common bile duct perforation is an uncommon clinical entity in both adults and children. Because of its relative rarity, diagnosis has typically been confirmed during surgical exploration of the abdomen, often undertaken for other suspected pathology such as a perforated viscus.

CASE REPORT: This is case of a 45 year male who presented to the emergency department, complaining of epigastric pain. On surgery he was found to have CBD perforation.

DISCUSSION: The diagnosis of spontaneous CBD perforation is difficult to establish and often delayed due to nonspecific symptomatology and often undiagnosed prior to laparotomy. Despite advances in intensive care management, delayed treatment still results in high morbidity and mortality.

CONCLUSION: Physicians and Surgeons should seek out this uncommon diagnosis in the patient with suspected Choledocholithiasis who suddenly becomes peritoneal on physical exam so that definitive care can be expedited.

KEYWORDS :

INTRODUCTION

Spontaneous common bile duct perforation is an uncommon clinical entity in both adults and children. Few case reports have been published since the first clinical description in 1882.

Because of its relative rarity, diagnosis has typically been confirmed during surgical exploration of the abdomen, often undertaken for other suspected pathology such as a perforated viscus. Mortality is often elevated as the diagnosis is most commonly reported in frail and elderly individuals undergoing surgical exploration.

In this case report, we describe spontaneous choledochal perforation believed to be due to impacted choledo cholithiasis in a 45 year old male with diagnosis made prior to surgical exploration

CASE REPORT

A 45 year male presented to the emergency department, complaining of epigastric pain that was associated with vomiting and jaundice. He denied fever and chills. his past medical and surgical was not significant.. Abdominal exam was non-tender with negative Murphy's sign. Laboratory studies were : AST 79 mg/dL and ALT 57 mg/dL. However, canalicular and pancreatic enzyme and leukocyte levels were within normal levels.

Computed tomography (CT) revealed cholelithiasis with collapsed wall showing irregular margin likely suggestive of GB perforation ,choledocolithiasis causing moderate IHBR and proximal CBD dilation , gross ascitis and mild bilateral pleural effusion.

MRCP report was suggestive of chronic cholecystitis with cholelithiasis, choledocholithisis calculus size of 11*12 mm, at distal end of CBD resulting into proximally dilated CBD calibre measuring 12 mm and intrahepatic biliary radical, pericholecystic edema moderate ascitis bilateral pleural effusion

On hospital day one, her symptoms markedly worsened with new abdominal distension, diffuse abdominal tenderness, and voluntary guarding in the left lower and left upper quadrants.

About two weeks of nonoperative management led to minimal improvement in clinical condition, and subsequent operative exploration revealed CBD perforation size of .5*.5mm with an intact gallbladder. Cholecystectomy with CBD repaired over T-tube done. The patient recovered well.

Fig 1.Intra-op picture of the ruptured common bile duct.

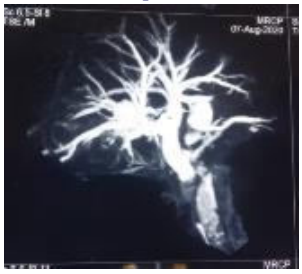

Fig 2. MRCP image showing dilated CBD< IHBRD with calculus.

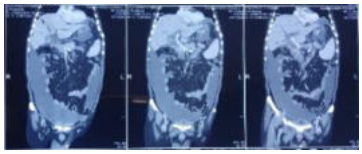

Fig 3. CT image showing suspected gall bladder perforation with right sub-diaphragmatic collection

DISCUSSION

Non-traumatic perforation of the extrahepatic bile ducts in adults is an uncommon clinical entity. The disease more commonly occurs in infants due to associated congenital anomalies such as choledochal cysts [5]

The diagnosis of spontaneous CBD perforation is difficult to establish and often delayed due to nonspecific symptomatology [4] and often undiagnosed prior to laparotomy [3,6]. Despite advances in intensive care management, delayed treatment still results in high morbidity and mortality [6].

The pathogenesis of spontaneous bile duct perforation is poorly understood, likely related to its rarity. It is currently thought to be related to multiple factors including increased intraductal pressure, fluid stasis, dilation of the bile duct (due to distal obstruction or spasm of the sphincter of Oddi), diverticulum, abnormal glands in the bile duct wall, infection of the bile duct, a connective tissue defect, or ischemic compromise, and occasionally malignancy [1],[4],[6].

The most common site of extrahepatic bile duct perforation is the CBD followed by the common hepatic duct.

A high degree of suspicion must be maintained for this unusual clinical entity, especially for the patient that presents with abrupt change in exam and lab parameters with suspected choledocholithiasis as delay in diagnosis is associated with increased morbidity and mortality.

CONCLUSION

Physicians and Surgeons should seek out this uncommon diagnosis in the patient with suspected Choledocholithiasis who suddenly becomes peritoneal on physical exam so that definitive care can be expedited.

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