

Biloma: An Unusual Complication in a Patient with Calculus Cholecystitis

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ABSTRACT

A biloma is an encapsulated collection of bile located in the abdomen. It usually occurs spontaneously or can be secondary to traumatic injury (hepatobiliary surgery) and in rare condition it can occur as complication of cholecystitis and cholangiocarcinoma. The diagnosis can be suggested on the basis of patient's medical history, clinical symptoms and imaging findings but final definitive diagnosis can only be made by aspiration of the content and biochemical analysis. We here report a case of 62 years male patient admitted with acute abdominal pain in the right hypochondrium caused by a spontaneous biloma. We discuss the role of the various diagnostic imaging techniques, particularly which of ultrasound and CT. The biloma was identified on computed tomography in this case.

Key words: Abdominal pain; Bile; Computed Tomography

INTRODUCTION

Biloma is defined as a bile collection, either encapsulated or not, outside the biliary tree, with intra- or extrahepatic location, generally of iatrogenic nature or resulting from abdominal trauma.^{1,2} The word "biloma" was first utilized by Gould & Patel³ in 1979, but there are descriptions of such an entity since the century XIX.⁴ Spontaneous rupture of the biliary tree is rarely observed, sometimes being associated with choledocolithiasis.^{1,5} The detergent activity of bile acids provokes chronic inflammation that, on its turn, causes adhesions, leading to a possible loculated appearance of the collection.² Clinically, abdominal pain, distention, peritonitis, jaundice and, in more severe cases, sepsis, may occur.^{1,2,5,6} The mean time between symptoms onset and the diagnosis is one to two weeks.² Considering the rarity of such condition, the authors describe the present case and review this clinical entity.

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CASE REPORT

A male, 62 years old, previously healthy has presented right hypochondrium pain for 5 days. At clinical examination, the patient was icteric (3+/4+) and afebrile. Laboratory tests included: Gamma-Glutamyl Transferase (GGT): 340 U/L, direct bilirubin levels: 8.8 mg/dl and lipase levels: 205 U/L. Microbiological study presented negative results. Ultrasonography (US) demonstrated thickened and edematous gallbladder wall with subcapsular collection in liver with diagnosis of calculus cholecystitis. Computed tomography (CT) confirmed the distended gallbladder with perforation in fundus and fistulous communication with subcapsular collection in liver and thus the patient was submitted to laparotomy, which confirmed the tomographic report.

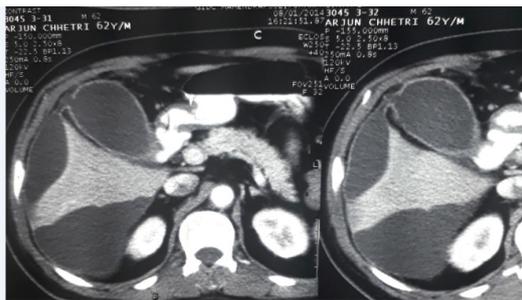


Figure 1: Post contrast axial CT scan at the level of fundus of gallbladder showing perforation at the fundus with subcapsular collection in liver.

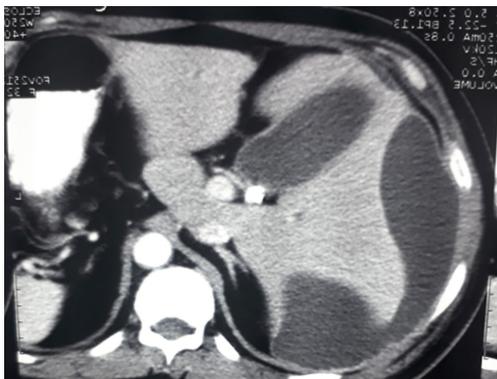


Figure 2: Post contrast axial CT scan at the level of neck of gallbladder showing small hyperdense calculus at neck of gall bladder. There is minimal thickening of wall of gall bladder with subcapsular collection in liver.

DISCUSSION

Gallbladder perforation is uncommon condition. Gall bladder perforation is seen in 2-10% of acute cholecystitis cases.⁷ This complication is rare these days with incidence of 0.8% due to increase in cholecystectomies in modern surgical practice.⁸ The pathophysiology leading to gallbladder perforation include cystic duct obstruction, stasis of bile that leads to increase in the intravesicular pressure, gallbladder dilatation and eventually perforation.^{7,9} Niemeier classified gallbladder perforation into acute (Type I), subacute (Type II) and chronic (Type III). In type I perforation there is generalized peritonitis, in subacute (Type II) there is localized peritonitis or pericholecystic abscess, and in chronic (Type III) there is a cholecystoenteric fistula.¹⁰ If there is rupture along the under surface of gallbladder there will be peritonitis with extraluminal fluid collection. Intrahepatic biloma or abscess may form if it occurs along the liver surface of the gallbladder. However Intrahepatic bilomas due to gallbladder perforation is rare.⁹

Overlapping symptoms can be seen in both complicated and uncomplicated cholecystitis which make early diagnosis difficult but have important implications for patient management. Complicated cases need open cholecystectomy rather than laparoscopic cholecystectomy.^{7,11} This patient underwent open cholecystostomy with placement of drainage tube. Patient was discharged after resolution of the symptoms.

CONCLUSION

Subcapsular biloma is one of the complication of perforated acute cholecystitis. Early detection of these complication has significant impact on clinical management. Imaging and interventional radiology has an important role in the diagnosis and management

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