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Case Report

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Subcapsular liver hematoma due to endoscopic retrograde cholangiopancreatography: case report

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Abstract
Subcapsular hematoma due to endoscopic retrograde cholangiopancreatography is a rare complication. There are only a few case reports in this subject in literature. This report's aim is to present subcapsular hematoma due to endoscopic retrograde cholangiopancreatography case and compare it with the literature. A sixty-nine-year-old female patient was admitted to the clinic with abdominal pain and jaundice. In physical examination epigastric tenderness was present. Patient went under ERCP procedure due to choledocholithiasis. 1.5 cm of filling defect was seen in hilar region in ERCP. The gallstone was extracted with endoscopic sphincterotomy, balloon and basket. 12 hours after being discharged, patient admitted to the emergency service presenting low blood pressure, fatigue and abdominal pain. Arterial blood pressure and heart rate was respectively 90/60 mmHg and 100 bpm. Abdominal examination presented tenderness, guarding and rebound in all quadrants. Ultrasonography and general abdominal computed tomography showed subcapsular liver hematoma and subdiaphragmatic free air. The patient was operated due to acute abdomen. During exploration, laceration and subcapsular hematoma was present on the anterior face of the right lobe. Lacerated area was sutured simply. Postoperative day 9 patient was discharged with no complications. Patient was admitted presenting fever and abdominal pain postoperative month 1. USG and CT revealed that an approximately 10x3 cm heterogenic collection adjacent to the left lobe of the liver was reaching out to epigastrium. Percutaneous drainage was performed. Drainage was continued for 1 week. Control USG revealed regression and drainage was terminated. No complications were observed in patients 1 year of follow-up. Subcapsular hematoma of the liver is a rare complication. It should be considered in case of sudden hypotension and abdominal pain after ERCP. Conservative treatment should be considered in the foreground, however, surgery should be scheduled in case of acute abdomen and/or hemodynamic instability.

Keywords: ERCP, hematoma, liver

Introduction

Endoscopic retrograde cholangiopancreatography (ERCP) is an invasive operation which holds an important place in treatment of biliary tract and pancreatic diseases. Besides the diagnostic and therapeutic advantages there are also complications which have substantial rate and severity [1,2]. Acute pancreatitis is the most common complication Post-ERCP. Less frequently, there may be complications which diagnosis and treatment can be challenging like haemorrhage and perforation. Subcapsular hematoma due to ERCP is a rare complication. There are only a few case reports in this subject in literature. This report's aim is to present subcapsular hematoma due to endoscopic retrograde cholangiopancreatography case and compare it with the literature.

Case Report

A sixty-nine-year-old female patient was admitted to the clinic with abdominal pain and jaundice. In physical examination epigastric tenderness was present, no peritonitis symptoms were found. Other systems were natural. Past medical history consisted of hypertensionand cholecystectomy. Family was non relevant. Laboratory findings were; Leucocytes 5500 kU/L, haemoglobin 12 gr/dL, haematocrit %33, SGPT 153 U/L, SGOT 91 U/L, GGT 788 U/L, INR 0.9, total bilirubin and direct bilirubin. Other biochemical parameters were normal. Common bile duct was 14.5 mm wide and sludge was present in abdominal ultrasonography (USG). Magnetic Rezonans Cholangiopancreatography (MRCP) revealed common bile duct 15 mm wide and gallstone. Patient went under ERCP procedure due to choledocholithiasis. Extrahepatic biliary tract was significantly dilated and 1.5 cm of filling defect was seen in hilar region all which confirmed gallstone. The gallstone was extracted with endoscopic sphincterotomy, balloon and basket. Haemoglobin and amylase parameters were normal 6 hours Post-ERCP. The patient was discharged without any complication. 12 hours after being discharged, patient admitted to the emergency service presenting low blood pressure, fatigue and abdominal pain. Arterial blood pressure and heart rate was respectively 90/60 mmHg and 100 bpm. Abdominal examination presented tenderness, guarding and rebound in all quadrants. Laboratory findings were; Leucocytes 14280 kU/L, haemoglobin 11 gr/dL, haematocrit %30, SGPT 57 U/L, SGOT 52 U/L, GGT 92 U/L, amylase 161, total bilirubin and direct bilirubin. Other biochemical parameters were natural. USG revealed a heterogeneous solid

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composition without any precise contours in a 40x20 mm area in the right lobe parenchyma. CT showed diffuse heterogeneous changes in the anterolateral region of the right lobe, contour irregularities, sub-capsular and sub-diaphragmatic free air, air like linear images coherent with pneumobilia in the biliary tract of right lobe and intraabdominal free fluid in lower quadrants and more prominently in perihepatic region (Figure1). Patient was operated due to acute abdomen. During exploration, laceration and subcapsular hematoma was present on the anterior face of the right lobe. Duodenum was explored from bulbus to 3rd part. No pathology was found with leak testing using water and air. Lacerated area was sutured simply. Patient was discharged with no complications post-operative day 9. Patient was admitted presenting fever and abdominal pain post-operative month 1. USG indicated a 142,5x140x73 mm heterogenous image compatible with hematoma with well defined borders and approximately 10x3 cm heterogenic collection related to the hematoma adjacent to the left lobe of the liver was reaching out to epigastrium. CT showed a 12-15 cm cystic formation with dense content that takes up the right lobe in an expansive way. Percutaneous drainage was performed. Drainage was continued for 1 week. Control USG revealed regression and drainage was terminated. No complications were observed in patients 1 year of follow-up.

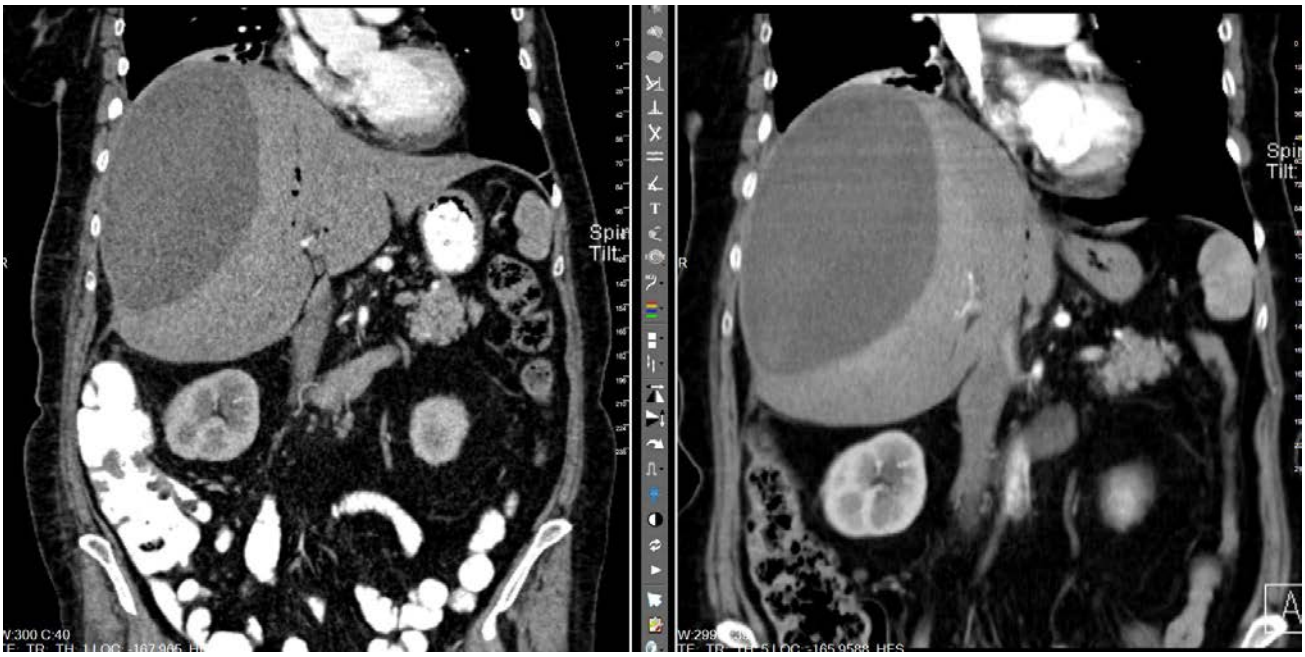

Figure 1.

Discussion

ERCP is a minimally invasive procedure frequently used in both diagnosis and treatment of the biliary tract and pancreatic diseases. It's uses in diagnosis are nearly ended with improvements in CT and MRI [3]. The most common complication post-ERCP is pancreatitis, following with duodenal perforation, haemorrhage and cholangitis. Complication rates vary between %2-12 and mortality rates between %0,5-1 in different series in literature [4,5].

Subcapsular hematoma due to ERCP is a rare complication. At first, this complication was published by Ortega and friends in 2000 [4]. There are only a few other case reports after this article. It's believed that the hematoma is caused by iatrogenic intra-hepatic rupture and injury of small calibered intra-hepatic blood vessels by the use of guide wire [6].

Subcapsular liver hematoma should be considered in case of sudden hypotension and abdominal pain after ERCP. There are no specific laboratory finding other than low haematocrit levels. Different methods of imaging (USG, CT, MRI) are used for diagnosis and follow-up [7,8]. Our case presented with sudden hypotension and abdominal pain due to ERCP. USG and CT was used for diagnosis.

Usually conservative treatment is suggested. Blood transfusions, pain control, antibiotic prophylaxis to prevent infection are used in conservative treatment [9]. The decision for surgery was made due acute abdomen, hemodynamic instability and CT findings.

Consequently, sub-capsular hematoma of the liver is a rare complication. It should be considered in case of sudden hypotension and abdominal pain after ERCP. Conservative treatment should be considered in the foreground, however, surgery should be scheduled in case of acute abdomen and/or hemodynamic instability.

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