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Case Report

Ampullary Tumor Presented with Liver Abscess - A Case Report

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1. Case Report

A 75-year-old Thai male presented with two weeks history of fever, chill, anorexia and persistent dull-aching epigastrium pain. His medical history was noted for history of necrotizing pancreatitis with gallstone with successful laparoscopic cholecystostomy. Physical examination was notable for positive fist test and body temperature of 39 degrees Celsius. Initial laboratory investigations showed leukocytosis with predominant neutrophils and abnormal liver enzymes. Ultrasound of upper abdominal area was performed and demonstrated a well-define heterogenous hypoechoic lesion of 9.9 x 8.1 cm size, probable with liver abscess. The common bile duct was mildly dilated with no evidence of intrahepatic ducts dilatation. Further investigation with Computed Tomography showed liquified heterogenous lesion at right hepatic lobe probable with liver abscess with no common bile duct nor intrahepatic duct dilatation (Figure 1). The initial diagnosis was liver abscess. However, subsequent Endoscopic Retrograde Cholangiopancreatography (ERCP) show ampullary mass with malignant surface and common bile duct diameter of 10 mm. The presented case was a rare presentation of ampullary tumor with symptoms mimicking common bile duct stone.

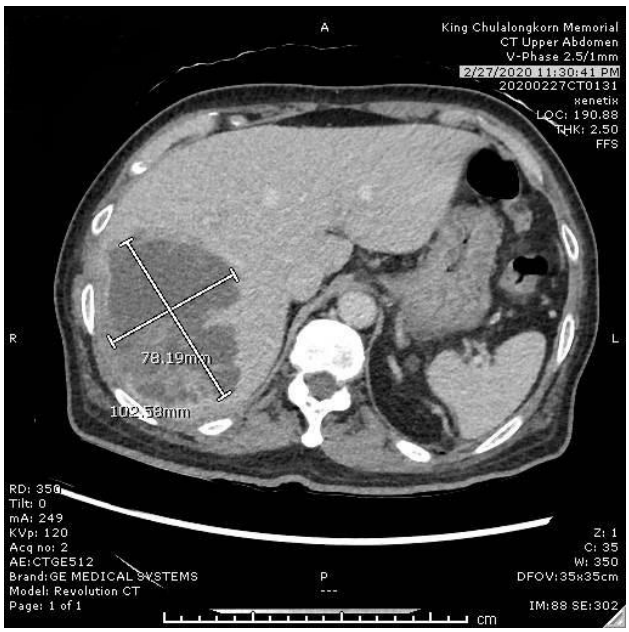

Figure 1: CT upper abdomen showed liquified heterogenous mass 10 x 11 cm at right hepatic lobe with no demonstrable common bile duct (CBD) not intrahepatic duct (IHD) dilatation.

2. Introduction

The most common presenting symptoms of the ampullary tumor is obstructive jaundice (80%). It caused by compression of distal bile duct, which is usually painless and progressive in nature [1]. Ampullary tumors have lower incidence relative to other periampullary malignancies (7%) and accounting only for 0.2% of all gastrointestinal malignancies [2,3]. Reports on incidence of cholangitis from malignant obstruction varies from 10% to 57% [4]. The diagnosis is established by a combination of endoscopic, radiologic and histologic features.

3. Case Report

A 75-year-old Thai male presented at the hospital with two weeks

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history of fever, chill, anorexia and persistent dull-aching epigastrium pain with no jaundice. He had medical history of biliary necrotizing pancreatitis successfully treated with conservative treatment followed by laparoscopic cholecystostomy six years ago. Another underlying disease was superior cerebellar artery aneurysm treated with embolization two years ago. He was completely independent in activities of daily living. The patient denied history of antiplatelet and anticoagulant drug use. His vital signs were body temperature of 39 degrees Celsius, Blood Pressure 118/80 mmHg, Heart rate of 98 beats per minute and Respiratory rate of 18 breaths per minutes. Physical examination was noted for a positive fist test with no noticeable jaundice. Initial laboratory investigations revealed white blood cells (WBC) count 10,580 cells/mm with 83 percent neutrophils, Total bilirubin (TB) 2.1 mg/dL Direct bilirubin (DB) 1.4 mg/dL Aspartate transaminase (AST) 116 IU/L Alanine transaminase (ALT) 85 IU/L Alkaline phosphatase (ALP) 322 IU/L Amylase 58 U/L and Lipase 52U/L and International Normalized Ratio (INR) 1.19. Ultrasound of upper abdomen reveled large well-define heterogenous hypo echoic lesion at right hepatic lobe 9.9 x 8.3 cm with mildly dilate common bile duct (CBD) with 6 mm diameter and no intrahepatic duct (IHD) dilatation, possible liver abscess. Subsequent CT of upper abdomen (Figure 1) revealed huge and liquified heterogenous lesion 10 x 11 cm at right hepatic lobe with no demonstrable CBD and IHD dilatation. The initial diagnosis was liver abscess from ascending cholangitis. The patient was treated with empirical antibiotics Ceftriaxone 2g IV OD and Metronidazole 500 mg IV every 8 hours. Subsequent endoscopic retrograde cholangiopancreatography (ERCP) was performed as a therapeutic procedure for possible common bile duct stone. ERCP showed an ampullary mass with malignant surface with dilated CBD about 10 mm in diameter. (Figure 2,3) Mucosal biopsy was performed from the mass. Pathological diagnosis was moderately differentiated adenocarcinoma. The patient underwent Whipple's operation. Surgical pathology showed moderately differentiated pancreaticobiliary adenocarcinoma size 1.5 x 1.1 x 1.0 cm in diameter. It was located at periampullary region involving ampullary epithelium, duodenal wall, pancreatic duct and distal common bile duct. Evidence of lymphatic tumor emboli was noted. Follow-up CT at one month after surgery showed improvement of liver abscess and the patient is doing well with no fever nor abdominal pain. Adjuvant chemotherapy and additional follow-up CT was planned.

4. Discussion

In this current case, the patient had a history of symptomatic gall stone. Although the gall bladder was surgically removed a few years ago, the presenting symptoms still lead to clinical suspicion of common bile duct stones with liver abscess. According to the ASGE guideline, ERCP is indicated for management of choledocholithiasis [5]. The ampullary tumor was consequently diagnosed during the ERCP procedure. The most common presentation of ampulla tumor is jaundice from biliary tract obstruction (80%). Other commonly reported presenting symptoms are fever (44%) and abdominal pain (45%) [1, 6-8]. Incidence of acute cholangitis from malignancy varies from 10% to 57% [4]. The treatment is endoscopic biliary drainage and empirical antibiotics. Another similar case of ampullary adenocarcinoma was initially diagnosed as acute cholangitis [9].

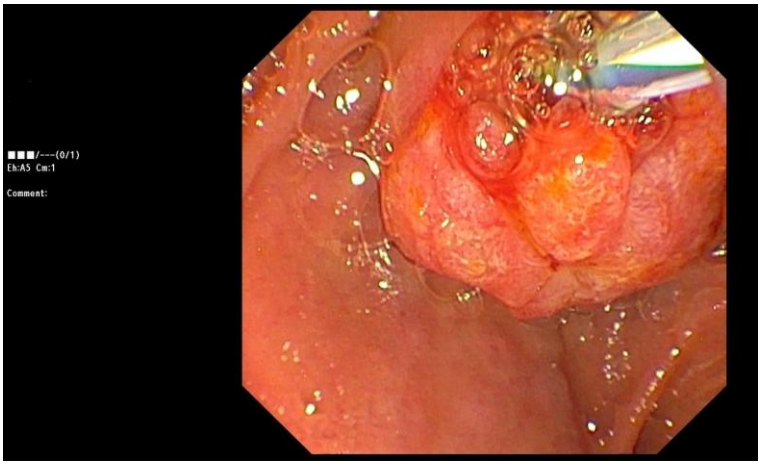

Figure 2: Ampullary mass with malignant surface observed during ERCP.

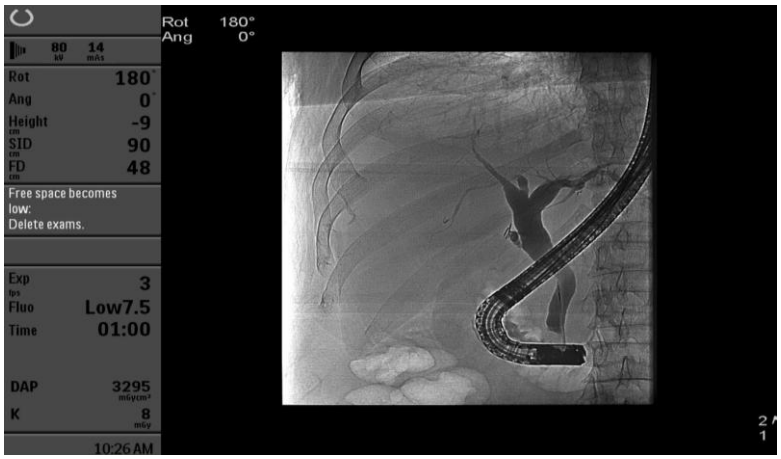

Figure 3: Common bile duct measured 10 mm.

Complete surgical resection of ampullary tumor is the only curative treatment. Hence, early diagnosis of the tumor is crucial. Conventional CT is less effective in detecting smaller lesion (<2mm) compared to EUS [10]. In this current case, CT also missed identification of the tumor. To diagnose small ampulla tumor, endoscopy seems to be the most sensitive test (references). This case support concept of the ASGE that ERCP is indicated in patients with clinical cholangitis despite negative prior radiological tests [5].

Immunohistological subtype of the tumor plays an important role as prognostic tool. Patients with pancreaticobiliary subtype have unfavorable outcome compared to patient with intestinal subtype, with median survival of 16 vs 116 months, respectively [11]. Nodes status is another important factor in patient survival. Patient with non-pancreaticobiliary tumor and negative node have 5-year sur-

vival rate of 88%, while patients with pancreaticobiliary tumor and positive node have poorer 5-year survival at only 20%. Thus, early detection of ampullary tumor are of great importance [12].

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