



Common Bile Duct Stone Misdiagnosed as Periapillary Carcinoma

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Abstract:

Obstructive jaundice mostly occur secondary to stone or malignancies. Malignancy is important cause and may often be unresectable at diagnosis. However, establishing a correct diagnosis before proceeding to treatment is of paramount importance. We present here a case of 40 year old female with a history of palliative triple bypass for periampullary carcinoma diagnosed after an episode of obstructive jaundice. After 3 years of being asymptomatic, she now presented to us with complaints of pain abdomen for past 6 months along with fever. Ultrasound, CT & MRI revealed calculi in dilated common bile duct (CBD) with no evidence of malignancy. The purpose of this report is to emphasize the fact that preoperative diagnosis must be made with certainty before embarking on any treatment and that a relatively common diagnosis of CBD stone when not done correctly can lead to unfortunate results.

Key words: Abdominal Pain, Jaundice, Endoscopic Retrograde Cholangiopancreatography, Common Bile Duct, Gallstones.

Introduction

Obstructive jaundice occur mostly secondary to stone diseases or malignancies. Malignancies are important causes and are often unresectable at the time of diagnosis [1]. Although rare, the possibilities for the co-existence of other benign causes need to be considered as the treatment required will be different [2]. Periapillary cancers include a group of malignant neoplasms arising in the pancreas or in or near the ampulla of Vater [3]. They usually present with obstructive jaundice or pain. Objective imaging tests, such as computed tomography, ultrasonography and/or endoscopic retrograde cholangio-pancreatography, should be performed in all patients to rule out causes other than malignancy. Potential errors in judgement may be avoided by a more aggressive attempt at biopsy in selected patients. Because of a high incidence of concurrent cholelithiasis, many patients with a periampullary carcinoma seen during ERCP are misdiagnosed earlier (by clinical evaluation and non-invasive imaging) as having choledocholithiasis. However, here we present a case where the converse came true.

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Case Report

A 40 year old female presented with pain in right upper abdomen for last 6 months associated with fever. There was no history of jaundice, loss of appetite, weight loss, bowel or bladder disturbances. She had a past history of palliative triple bypass for advanced periampullary carcinoma diagnosed after an episode of obstructive jaundice 3 years back. On examination, she had hepatomegaly. Biochemical parameters and liver function tests were found to be normal.

Ultrasound showed gallstones in CBD with air in intra hepatic biliary radicals. CT showed dilated CBD, dilated intra hepatic biliary radicals (IHBR), with air collection predominant on left lobe of liver. MRI showed dilated CBD with few calculi, 2 prominent stones in proximal and distal CBD measuring 1.5 x 1.1 mm and 1.5 x 0.9 mm respectively other two measured 7 mm and 5 mm each, CBD measured 15 mm, right hepatic duct- 8 mm & left hepatic duct-10 mm [Fig.1].

On surgical exploration, cholecystojejunostomy was noted. Cholecystectomy & choledochotomy was done, stones removed and CBD closed on a T-tube. Pancreas was found to be normal. On 15th post-operative day, T-tube cholangiogram showed filling defect in distal CBD. On 23rd post-operative day, ERCP showed filling defect in distal CBD, 1.5 cm stone in distal CBD, which was removed later by ERCP. Patient improved symptomatically with no recurrence reported on 6 months of follow up [Fig.2].

Discussion

About 8-15 per cent of patients with symptomatic gallstones may have associated common bile duct (CBD) stones [4]. In order to predict the presence of bile duct stones more accurately, the combination of clinical, laboratory, and ultrasound risk factors has been used by several investigators.

A pre-ERCP diagnosis (by clinical evaluation and non-invasive imaging) of tumor versus choledocholithiasis

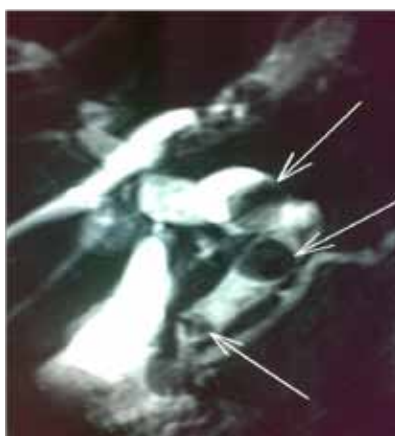


Fig.1: M.R. Cholangiopancreatogram showing dilated CBD containing calculi seen in proximal and mid CBD measuring 1.5 x 1.0 mm and 1.5 x 0.9 mm, the other two measure 7 and 5 mm.



Fig.2: 23th day post-operative, T-Tube Cholangiogram showing dilated CBD, CHD, LHD, RHD with no calculus in distal CBD.

was accurate in only 65% [5]. ERCP has long been considered the standard reference for the establishment of common bile duct stones with sensitivity of 90% and specificity of 98%, with a 96% accuracy. ERCP has the advantage of offering therapeutic intervention options in the same setting of diagnosis. While MRCP has a sensitivity and specificity of 96% and 86% for CBD stone diagnosis, it offers no therapeutic advantage [6]. In our present case, common bile duct calculi were inadvertently diagnosed as an advanced malignancy and operated upon. Ultrasound has a high specificity in the detection of common bile duct calculi although occasionally non-echogenic calculi at the lower end of the common bile duct can be missed or misinterpreted as a pancreatic mass [7]. Endoscopic ultrasonography offers high resolution imaging of the pancreas without intervening bowel gas, and excellent mucosal definition in the duodenum [8]. ERCP offers the potential both for accurate tissue diagnosis and for therapy, and we suggest that a stone impacted at the lower end of the common bile duct should be considered, even in an asymptomatic patient, when a malignancy is suspected.

Conclusion

Gallstones in CBD are an important and more common cause of surgical jaundice than periampullary carcinoma, though often under diagnosed. Thorough preoperative evaluation is of paramount importance. Failure or delay in the actual diagnosis may lead to a poorer outcome.

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