

Choledochal Cyst In An Adult – A Case Report

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Citation

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Abstract

Choledochal cyst, an anomalous dilatation of the biliary tract, is a disease of childhood. However, few cases of this condition are first time diagnosed in adult life. We are reporting one such case, a 31-year-old female presenting with symptoms related to biliary tract pathology and, on investigations, found to have type I choledochal cyst. This case was managed successfully by complete cyst excision and Roux-en-Y hepatico-jejunostomy.

INTRODUCTION

Choledochal cyst is a rare congenital cystic dilatation of the biliary tract that can involve the intra or extrahepatic bile ducts. The diagnosis of choledochal cyst is usually made in the childhood. Fifty percent of the reported cases are diagnosed in the first decade of life.¹ The diagnosis is delayed in approximately 20% of cases, and these patients present in adult life when symptoms related to the biliary tract pathology appear. Surgical options for the treatment of choledochal cyst include internal drainage by cystenterostomy or cyst excision with Roux-en-Y hepatico-jejunostomy. We successfully managed a 31-year-old female with choledochal cyst by cyst excision and Roux-en-Y hepaticojejunostomy.

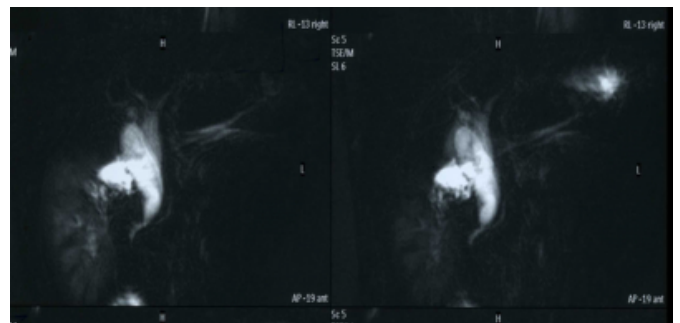
CASE REPORT

A 31-year-old female presented with a three-month history of upper abdominal pain and jaundice. There was previous history of similar pain without jaundice for which she required admission but no surgical intervention was done at that time. On physical examination, the patient was noted to be icteric and there was tenderness in the right hypochondrium. However, no mass was palpable. The bilirubin level was 3.8 mg/dl.

Ultrasonography showed thickening of gall-bladder wall and cystic dilatation of common bile duct (approximate diameter of CBD 4.5cm). MRCP was done which revealed fusiform dilatation of the CBD in its whole extent with oedema of the GB wall; hepatic biliary radical and hepatic ducts were normal (Fig. 1).

Figure 1

Figure 1: MRCP image showing a fusiform dilatation of the common bile duct suggesting type I choledochal cyst.



Exploration revealed type I choledochal cyst. Cholecystectomy, cyst excision and Roux-en-Y hepaticojejunostomy was done. The patient had an uneventful postoperative period.

DISCUSSION

The reported incidence of choledochal cyst is around 1:150,000 live births.² Alonso-Lej classified the choledochal cysts into three types which was subsequently modified by Todani et al. in 1977.³ The latter is the currently most commonly used classification. A type I cyst is a fusiform dilatation of the common bile duct. An isolated diverticulum protruding from the wall is considered a type II choledochal cyst. A type III choledochal cyst is also known as a choledochoceles because it arises in the intraduodenal portion of the common bile duct. Multiple dilatations of the intrahepatic and extrahepatic bile ducts are considered type IVA, while type IVB involves exclusively the extrahepatic bile ducts. Type V is also known as Caroli's disease which involves multiple intrahepatic bile duct dilatation.

The etiology of choledochal cysts is unproven. An anomalous pancreaticobiliary junction resulting in an unusually long common channel has been suggested to result in antenatal pancreaticobiliary reflux leading to biliary stasis and dilatation.⁴

Most choledochal cysts occur in women. Adults with initial manifestation of choledochal cysts usually have non-specific right upper quadrant symptoms, jaundice, pancreatitis or cholangitis.⁵ A palpable mass, which is a common presentation in children, is rare.

The two basic treatments of choledochal cysts are cyst enterostomy and cyst excision with hepaticojejunostomy. Cyst enterostomy is technically easier but is associated with late complications including anastomotic stricture, biliary calculi associated with stasis, recurrent cholangitis and malignant degeneration of the retained cyst wall. Cyst excision with hepaticojejunostomy is technically demanding but associated with low morbidity and mortality in experienced hands. Cholecystectomy is done routinely whenever the cyst is completely excised. In difficult situations, when the cyst wall is densely adherent to hepatic artery and portal vein, Lilly's technique of cyst excision can be used. It recommends entering into the cyst by opening it anteriorly and excision of the mucosa of the cyst leaving a

portion of the external wall of the cyst attached to the vessels. The procedure of cyst excision decreases the risk of biliary stasis and the chances of developing cholangiocarcinoma, the reported incidence for which is in the range of 9% to 28%.²³

Because of the well-documented high risk of cancer, excision of the cyst with hepaticojejunostomy is recommended in all cases of choledochal cyst.

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