Choledochal Cyst: A Rare Condition In Adults

Khalid Ibrahim,[1]* Manan Masud, [2] Waqas Ahmed, [1] Sarah Fatima, [1] Bushra Aman, [3] Rabia Mushtaq[1]

ABSTRACT

Choledochal cyst is an aneurysmal dilatation of intra/extra hepatic biliary system. It is a rare disease in adults. A 35 year old pregnant woman in third trimester with choledochal cyst is reported. She presented with vomiting and pain epigastrium. Ultrasound study showed alive fetus, acute calculus cholecystitis, hepatomegaly and intra/extra hepatic dilatation of common hepatic and bile ducts. MRCP showed fusiform dilatation of distal common hepatic duct (CHD) and proximal common bile duct (CBD) suggestive of choledochal cyst (type I). She was managed conservatively till delivery. Laparotomy was done electively, confirmed choledochal cyst which was excised and hepaticojejunostomy Roux-en-Y was done. Early suspicion of this rare disease is necessary as surgical treatment is the only solution to avoid future complications.

Key words *Choledochal cyst, Adult – choledochal cyst, Pregnancy – choledochal cyst.*

INTRODUCTION:

Choledochal cyst is a congenital dilatation of intra/extra hepatic biliary duct system with incidence between 1:100,000 and 1:150,000 live births in developed countries.[1] Most of the choledochal cysts are diagnosed in infancy. About 25% of the patients are diagnosed in adulthood. Many diagnostic modalities are available for early recognition of the condition. This include ultrasound, CT scan, and MRCP that delineate type of choledochal cyst.[2] We report a pregnant woman in third trimester who was diagnosed as having choledochal cyst on ultrasound.

CASE REPORT:

A 35-year old pregnant woman in 3rd trimester presented with the complaints of vomiting and pain abdomen of three days duration. She was admitted and underwent investigations. Ultrasound abdomen showed alive fetus, enlarged liver, acute calculus cholecystitis and intra/extra hepatic dilatation of common hepatic and common bile ducts. Laboratory tests showed serum amylase level of 261 u/l, normal liver function tests and total leukocyte count of 9.9x10/l. Due to pregnancy, CT scan was not done. MRCP showed fusiform dilatation of distal common hepatic and proximal common bile ducts (Fig I). It was suggestive of type I choledochal cyst. She was managed expectantly for her symptoms till term.

Fig I. MRCP showing dilated common hepatic and bile ducts

[1] Department of Surgery Combined Military Hospital, Malir Cantt. Karachi.
[2] Lahore Cantt Medical College
[3] KIMS Karachi

Correspondence:
Dr. Khalid Ibrahim [1*]
Department of Surgery
Combined Military Hospital, Malir Cantt
Karachi
E mail: khalidibrahimsurg@hotmail.com

Delivery took place normally. An elective laparotomy was performed at later date. At surgery marked dilatation of whole CBD, extending up to the confluence of right and left hepatic ducts, was found. Cholecystectomy and excision of dilated ducts up to the common hepatic duct was done. Continuity of biliary tree was restored with Roux-en-Y hepticojejunostomy. Patient showed uneventful postoperative recovery and was discharged from hospital after seven days.

DISCUSSION:

Choledochal cyst is a rare congenital dilatation of extra/intra hepatic biliary tract. It is usually diagnosed in infancy and childhood. It is four times more common in females.[3] Choledochal cysts are associated with increased risks of cholangitis and recurrent pancreatitis. Todani described five types of choledochal cysts: Type I (dilation of extra hepatic biliary tract) is most common.[4] Right upper quadrant pain, jaundice and abdominal mass are the common presenting symptoms. CT scan and MRCP are important diagnostic tools.[5] In index case no symptoms were reported till current admission. Ultrasound abdomen and MRCP helped in making diagnosis and planning treatment. Type I cyst is managed by cholecystectomy, excision of whole cyst, and hepatiojejunostomy.[6] Same was done in our patient.

Choledochal cyst is rare in adult patients. It is not considered in differential diagnosis of abdominal pain, specially during pregnancy. A general surgeon must be aware of this uncommon condition which in acute presentation can be treated conservatively. Our patient responded to medical management and pregnancy remained uneventful. She was then operated electively with smooth recovery. There are reported cases of cholangiocarcinoma in patients with choledochal cyst, therefore removal of cyst is mandatory.

REFERENCES:

1. Bailey & Love Short Practice of surgery, edited by Norman S. Williams, P.Ronan O' Connell, Andrew W. McCaskie, 27th edition, chapter 67, 2018;2:1197-8.

2. Cameron JA, Cameron AM. Current Surgical Therapy. 12th edition, chapter 85, 2017:451-2.

3. Edil BH, Cameron JL, Reddy S, Lum Y, Lipsett PA, Nathan H, et al. Choledochal cyst disease in children and adults: a 30 year single institution experience. J. Am Coll Surg. 2008;206:1000-8.

4. Soares KC, Arnaotakis DJ, Kamel I, Rastegar N, Anders R, Maithel S, et al. Choledochal cysts. Presentations, clinical differentiation, and management. J Am Coll Surg. 2014;219:1167-80.

5. Abu Sbeh T, Rehani H, Smadi S, Jarrah B. Adult Choledochal cyst. A case report. JRMS. 2006;13:64-6.

6. Liu CL, Fan ST, Lo CM, Lm CM, Poon RT, Wang J. Choledochal cysts in adults. Arch Surg. 2002;137:465-8.

Received for publication: 20-11-2018

Accepted after revision: 31-12-2018

Author's Contributions:
Khalid Ibrahim: Manuscript writing.
Manan Masud: Data collection.
Waqas Ahmed: Data collection.
Sarah Fatima: Data collection.
Bushra Aman: Data collection.
Rabia Mushtaq: Data collection.

Conflict of Interest:
The authors declare that they have no conflict of interest.

Source of Funding:
None

How to cite this article:
Ibrahim K, Masud M, Ahmed W, Fatima S, Aman B, Mushtaq R. Choledochal cyst: A rare condition in adults. J Surg Pakistan. 2018;23(4):158-9. Doi:10.21699/jsp.23.4.10.