



CODEN [USA]: IAJPB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.2560982>Available online at: <http://www.iajps.com>

Research Article

**ANALYSIS OF SURGICAL MANAGEMENT OF OBSTRUCTIVE
JAUNDICE DUE TO SPONTANEOUS INTRABILIARY
RUPTURE OF HYDATID CYSTS OF THE LIVER**¹Dr Zainab Nadeem, ²Dr Amna Waleed, ³Dr Navaira Hye¹Shifa International Hospital, Islamabad, ²Yusra Medical College, Islamabad, ³DHQ Hospital, Khanewal.**Abstract:**

A myriad of complications of hydatid cyst of liver may occur. The complications may include rupture, infection, or anaphylaxis. Rupture of hydatid cyst of liver is the most common complication. Liver hydatid can rupture in any part of biliary system but the communication with the hepatic bile ducts is most common. The basic aim of the study is to analyze the surgical management of obstructive jaundice due to spontaneous intrabiliary rupture of hydatid cysts of the liver. This case study was conducted at Shifa International Hospital, Islamabad during 2018. This was basically a case study. A 60-year-old female presented with abdominal pain and jaundice of 15 days duration. After 10 days she had fever with chills and high colored urine. General physical examination revealed yellowish discoloration of sclera. Systemic examination was normal. Abdominal examination revealed tenderness in right hypochondrium and epigastrium. Liver function test parameters were bilirubin of 9.87 mg/dl, AST 53 U/L, and ALP 410 U/L. Histopathology of gallbladder revealed features of acalculous cholecystitis. She was discharged with Albendazole therapy. Follow-up was uneventful. It is concluded that concomitant intrabiliary rupture in hepatic duct and gallbladder is rare to see. ERCP is useful in diagnosis. Surgery can give final diagnosis. However surgery is associated with many post-operative complications including persistent post-operative biliary drainage, infection of residual cavity, sinus formation, recurrence or dissemination.

Key words: ERCP, Formation, Cyst, Hydatid.**Corresponding author:****Dr. Zainab Nadeem,**
Shifa International Hospital, Islamabad.

QR code



Please cite this article in press Zainab Nadeem et al., *Analysis Of Surgical Management Of Obstructive Jaundice Due To Spontaneous Intrabiliary Rupture Of Hydatid Cysts Of The Liver.*, Indo Am. J. P. Sci, 2019; 06(02).

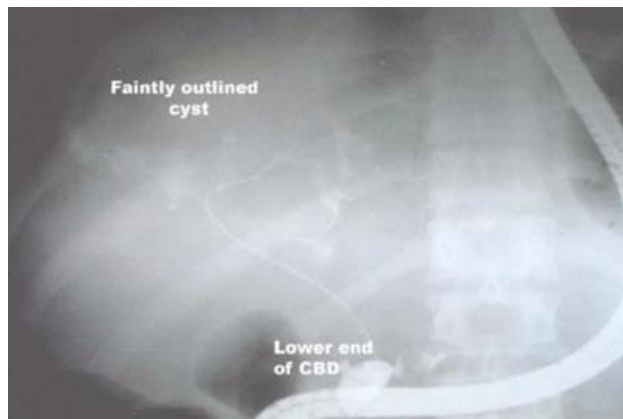
INTRODUCTION:

A myriad of complications of hydatid cyst of liver may occur. The complications may include rupture, infection, or anaphylaxis. Rupture of hydatid cyst of liver is the most common complication. Liver hydatid can rupture in any part of biliary system but the communication with the hepatic bile ducts is most common. Rupture between a hepatic hydatid cyst and the gallbladder is rare. An elevated pressure inside hydatid cyst leads to rupture and most often communicating with biliary system [1]. This can be small communication or frank rupture. However, frank rupture into the biliary tree occurs in only 5–15% of cases. Biliary communication is due to incorporation of biliary radicles into the pericyst of hydatid liver. Small rupture remains occult or asymptomatic [2]. Later in time rupture of the hydatid cyst into biliary tree produces symptoms and signs of obstructive jaundice, or sometimes an acute cholangitis occurs [3]. Modalities of investigation for confirming diagnosis are ultrasound abdomen (USG), computed tomography scan (CT Scan) abdomen, magnetic resonance cholangiopancreatography (MRCP) and endoscopic retrograde cholangiopancreatography (ERCP) [4]. ERCP is both diagnostic as well as therapeutic and is considered the gold standard in management of intrabiliary rupture of hydatid cyst of liver [5].

AIMS AND OBJECTIVES:

The basic aim of the study is to analyze the surgical management of obstructive jaundice due to spontaneous intrabiliary rupture of hydatid cysts of the liver.

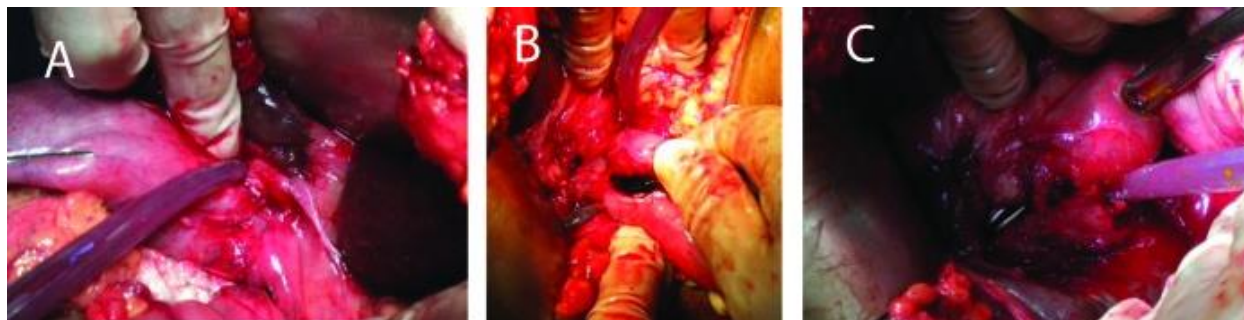
Figure 01: ERCP of the cyst with the duct is full of delineated radicles are also



film showing the communication biliary tract. The common bile membranes and could not be completely. Some intrahepatic seen to fill up.

Histopathology of gallbladder revealed features of acalculous cholecystitis. She was discharged with Albendazole therapy. Follow-up was uneventful.

Figure 02: (A-C) A small fistula measuring 1 cm was seen between liver hydatid cyst and right hepatic duct and another which had fistula measuring 0.5 cm width of gallbladder.



DISCUSSION:

Hepatic hydatid disease (HHD) is a major endemic problem in sheep-rearing regions of the world. The liver acts as a filter for hydatid larvae, making it the most commonly affected organ. The liver is involved in 50% to 70% of patients with hydatid disease [6]. Symptoms arise either when the cyst has grown enough to cause pressure on adjacent organs or when a complication occurs. Rupture, secondary infection, and suppuration are the most common complications. Up to one-third of patients with HHD present with complications such as rupture (into the biliary tree, thorax or peritoneum), secondary infection, anaphylactic shock, sepsis and liver replacement [7]. Cysts of the liver exert pressure on the surrounding parenchyma, and in most cases the cysts eventually rupture into the biliary tree in 1% to 25% of cases although an incidence of 64.75% has been reported from a multicentric study in Tunisia [8]. It occurs in two forms: an occult rupture, resulting from small tears between the cyst wall and small biliary radicles, seen in 10% to 37% of the patients, or a frank rupture, involving large bile ducts, seen in 3% to 17% of the patients [9].

Obstructive jaundice occurs when cyst elements empty into the biliary tree. Rupture is most likely to occur in centrally located cyst with a high intracystic pressure up to 80 cm H₂O. According to Lewall and McCorkell the cyst rupture can occur in three clinical forms: contained, communicating and direct. Contained rupture occurs when the cyst contents are confined within the pericyst. Communicating rupture defines tearing of the pericyst and evacuation of cyst contents into the biliary tract or bronchioles [10]. Direct rupture describes complete tear of the cyst wall and spillage of the cyst contents into the peritoneal or pleural cavity. Although biliary obstruction is reported to occur in only 5% to 17% of cases obstructive jaundice occurs in 57% to 100% of cases following intrabiliary rupture, especially when the rupture occurs into the large bile ducts thus emptying the contents into the biliary tract. It has been reported

that if the cystobiliary opening is larger than 5 mm, cystic content migration into the biliary tract would occur in 65% of the cases. Other presentations are right upper abdominal pain (82%), fever (70–90%), acute cholangitis (20–37%), abdominal lump (22–39%), and rarely with acute pancreatitis, liver abscess or septicemia; or in 5% to 6% it may be asymptomatic [11].

Biliary obstruction is reported to occur in 5-17% of cases after rupture of hepatic hydatid [8]. It has been reported that if the cystobiliary opening is larger than 5 mm, cystic content migration into the biliary tract would occur in 65% of the cases. Obstructive jaundice occurs in 57% to 100% of cases following intrabiliary rupture, especially when the rupture occurs into the large bile ducts thus emptying the contents into the biliary tract [12]. When rupture into the biliary tract occurs, the cystic fluid escapes into the biliary tract with daughter cysts; or ruptured membranes discharged into the common bile duct, causing biliary colic, obstructive jaundice, and possibly liver abscess [13].

CONCLUSION:

It is concluded that concomitant intrabiliary rupture in hepatic duct and gallbladder is rare to see. ERCP is useful in diagnosis. Surgery can give final diagnosis. However surgery is associated with many post operative complications including persistent post operative biliary drainage, infection of residual cavity, sinus formation, recurrence or dissemination. Persistent postoperative external bile drainage is a serious complication, occurring in 3.8% to 27.5% of cases, that often necessitates reoperation.

REFERENCES:

1. Adaletli I, Yilmaz S, Cakir Y, Kervancioglu R, Bayram M. Fistulous communication between a hepatic hydatid cyst and the gallbladder: diagnosis with MR cholangiopancreatography. *AJR Am J Roentgenol.* 2005;185(5):1211–1213.

2. Pedrosa I, Saiz A, Arrazola J, Ferreiros J, Pedrosa CS. Hydatid disease: radiologic and pathologic features and complications. *Radiographics*. 2000;20(3):795–817
3. Unalpa Haluk Recai, Baydara Behlul, Kamera Erdinc, Yilmaza Yeliz, Isseverb Halim, Tarcanc Ercument. Asymptomatic occult cysto-biliary communication without bile into cavity of the liver hydatid cyst: A pitfall in conservative surgery. *Int J Surg*. 2009;7(4):387–391.
4. Kumar R, Reddy SN, Thulkar S. Intrabiliary rupture of hydatid cyst: diagnosis with MRI and hepatobiliary isotope study. *Br J Radiol*. 2002;75(891):271–274.
5. Lewall DB, Nyak P. Hydatid cysts of the liver: two cautionary signs. *Br J Radiol*. 1998;71(841):37–41
6. Kumar A, Upadhyaya DN, Singh S, Kumar M, Ansari MA. Cholecysto-hydatid cyst fistula. *Indian J Gastroenterol*. 2004;23(2):76–77.
7. Settaf A, Bargach S, Aghzadi R, Lahlou MK, Oudghiri M. [Treatment of cystobiliary fistula of hydatid cyst of the liver. Apropos of 33 cases] *J Chir (Paris)* 1991;128(3):133–138.
8. Akkiz H, Akinoglu A, Colakoglu S, Demiryurek H, Yagmur O. Endoscopic management of biliary hydatid disease. *Can J Surg*. 1996;39(4):287–292.
9. Zaouche A, Haouet K, Jouini M, El Hachaichi A, Dziri C. Management of liver hydatid cysts with a large biliocystic fistula: multicenter retrospective study. *Tunisian Surgical Association. World J Surg*. 2001;25(1):28–39.
10. Marti-Bonmati L, Menor F, Ballesta A. Hydatid cyst of the liver: rupture into the biliary tree. *AJR Am J Roentgenol*. 1988;150(5):1051–1053
11. Kornaros SE, Aboul-Nour TA. Frank intrabiliary rupture of hydatid hepatic cyst: diagnosis and treatment. *J Am Coll Surg*. 1996;183(5):466–470.
12. Becker K, Frieling T, Saleh A, et al. Resolution of hydatid liver cyst by spontaneous rupture into the biliary tract. *J Hepatol*. 1997; 26:1408-12.
13. Rodriguez AN, Sanchez del Rio AL, Alguacil LV, De et al. Effectiveness of endoscopic sphincterotomy in complicated hepatic hydatid disease. *Gastrointest Endosc* 1998; 48:593-7.