gall bladder and inflammatory changes at the porta. Intraoperative cholangiogram through the gall bladder remnant showed normal extrahepatic biliary tree. Partial cholecystectomy was done through the neck of the gall bladder without extensive portal dissection. A drain was placed in the gall bladder bed.

Histology revealed inflammatory changes in the gall bladder. The liver was histologically normal and ascitic fluid was sterile. The postoperative period was uneventful and the drain was removed on the 8th postoperative day after normal abdominal sonography. The child is doing well 4 months later.

Gall bladder perforation is extremely rare in infants. To the best of our knowledge, only four such cases have been reported in English literature till date. Although vascular, inflammatory and metabolic factors have been incriminated in its etiology, the etiopathogenesis in infants is unclear. Gallstones are one of the etiological factors, either by focal necrosis or by obstruction of the biliary tract. Congenital weakness of the gall bladder wall, vascular impairment, and distal obstruction may contribute in ‘spontaneous’ perforations.

As sterile biliary peritonitis is well tolerated by infants, they are usually active and alert and accept food normally during the early course of the disease. The clinical presentation in such infants is insidious and heralded by features of subacute peritonitis and partial biliary obstruction in the form of progressive abdominal distension, low-grade fever, mild ileus, acholic stools, and occasionally bilateral inguinal herniae. The presence of radiotracer in the peritoneal cavity on cholecintigraphy confirms the diagnosis.

Early surgical intervention aimed at adequate external biliary drainage is the treatment of choice. In the absence of distal biliary obstruction, a normal involution of cystic duct is anticipated. Cholecystectomy has been advised against in a few reported cases, mainly due to marked portal inflammation, which makes extensive surgery both difficult and hazardous. But recent literature and our experience highlight the role of intraoperative cholangiogram and cholecystectomy in the management protocol. In the presence of gangrenous and perforated gall bladder, partial cholecystectomy may be done to remove a potential septic focus with little portal dissection.

We conclude that, although rare, gall bladder perforation should be considered in the differential diagnosis of infants presenting with features of biliary peritonitis. We recommend a routine intra-operative cholangiogram and propose partial cholecystectomy with external biliary drainage as the treatment of choice.

References

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Cholecysto-hydatid cyst fistula

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A 27-year-old woman developed recurrent hydatid of liver. CT scan showed unilocular cysts in segments IV and VII. Intraoperatively, there was a fistulous communication between the gall bladder and the cyst in segment IV. Partial pericystectomy along with cholecystectomy was done for the segment IV cyst; percutaneous aspiration, instillation and re-aspiration using hypertonic saline was done for the cyst in segment VII. This was followed by albendazole treatment. [Indian J Gastroenterol2004;23:76-77]

Keywords: Gall bladder, hydatid fistula

Liver is the most common site of hydatid cyst. The most common complication of hydatid cyst of the liver is spontaneous rupture into the biliary tract, and the reported incidence is 5% to 10%. Rupture may also occur in the peritoneal cavity and bronchus. Rupture into a hollow viscus is extremely rare.

A 27-year-old woman was admitted with the diagnosis of recurrent hydatid cyst of the liver. She had undergone surgery for hydatid disease of the left lobe of the liver in the retroperitoneum 10 months ago, when capitonnage of the liver cyst and excision of the retroperitoneal hydatid was done. She was on albendazole therapy (10 mg/Kg/day in two divided doses) for nine months following surgery. The patient remained asymptomatic for a few months but dyspeptic symptoms returned afterwards.

Upon readmission, the hematological profile and liver function tests were normal. Plain X-rays of the chest and abdomen were normal. CT scan showed two unilocular cysts, one each in segments IV and VII of the liver. The intra-hepatic biliary radicals were not dilated and the common bile duct (CBD)
Fig: Cyst wall and gall bladder showing fistulous communication

was of normal caliber.

At laparotomy, the cyst in segment VII was inaccessible but that in segment IV showed bile-stained fluid on aspiration. The cyst wall was adherent to the gall bladder and had a 5-mm-diameter fistulous communication with the gall bladder (Fig). En-bloc partial pericystectomy and cholecystectomy was done. The cyst in segment VII was later treated by percutaneous aspiration, instillation and re-aspiration of hypertonic saline. The patient was followed up for a year and remained asymptomatic.

The commonest complication encountered with hepatic hydatid cyst is intra-biliary rupture, which results in cysto-biliary fistula in 15%-25% of cases. Clinical manifestations are produced only by a large biliary fistula (>5 mm), which allows the hydatid content to pass into the CBD.

Peroperatively, a bilio-cystic fistula can be suspected by aspiration of bile-stained hydatid fluid, as was done in the present case. Treatment options in such a case consist of drainage and sterilization of the cyst followed by either radical (total cysto-pericystectomy) or conservative (partial pericystectomy) excision. This is combined with CBD exploration and biliary lavage followed by either T-tube drainage or transduodenal sphincteroplasty for fistulas >5 mm. A small fistula may be left alone. Larger fistulas need aggressive treatment, which includes drainage and sterilization of the cyst, resection of the protruding wall of the cyst, treatment of the bilio-cystic fistula with direct sutting, CBD exploration and T-tube drainage, and cysto-biliary disconnection.

Medical treatment is recommended for prevention of recurrence and in treatment of recurrent as well as complicated hydatid disease (inoperable cysts, cysts in two or more organs, and peritoneal cysts).

Another recommended modality of treatment is percutaneous aspiration, instillation and re-aspiration (PAIR) for cysts more than 5 cm and Gharbi type I and II cysts. Even with utmost precaution, the recurrence rate in most series is 10% to 19.8%.

In the present case, in spite of radical treatment and adjuvant medical treatment with albendazole 10 mg/Kg for nine months, the patient developed recurrence and a fistula with the gall bladder. Fistulation in the gall bladder is very rare; the only series reported is that of Settaf et al., who reported 3 cases of gall bladder fistula. In recurrent hydatid disease, this is probably the first report of a gall bladder fistula. The patient was treated with cholecystectomy along with excision of the cyst, PAIR and postoperative albendazole therapy.

References


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