

Fistulized Hydatid Cyst in the Bile Duct Complicated by Angiocholitis: Case Report

Youssef ihab, Ibtissam Talbi, Zakaria el barkaoui, Amine Maazouz, Mohammed Najih, Hakim el kaoui, Sidi Mohamed Bouchentouf, Mountassir Moujahid and Ahemd bounaim
Chirurgie viscérale 1, Hopitale Militaire Mohammed V-Rabat, Maroc.

ARTICLE INFO

Article history:

Received: 16 May 2022;

Received in revised form:

10 July 2022;

Accepted: 21 July 2022;

Keywords

Hydatid cyst

Cholangitis

Fistula.

ABSTRACT

The hepatic localization of hydatid cysts classically occupies the first place in adults and alone accounts for approximately 2/3 of all hydatid localizations. Hepatic hydatidosis is a reputedly benign disease, but can become serious at because of its complications. The most common complication is fistulization of the cyst in the bile ducts which constitutes a turning point in the evolution of the disease and which risks involving the life-threatening. Our case is about a rupture of KHF in the bile ducts complicated by cholangitis in a patient admitted for treatment of severe sepsis on cholangitis.

© 2022 Elixir All rights reserved.

Introduction

Hydatidosis is a common pathology in Morocco and surrounding countries

Mediterranean and it still constitutes a public health problem in our country. It is due to the development in humans of the larva of a cestode called *Echinococcus Granulosus*. (1)

The hepatic localization of hydatid cysts classically occupies the first place in adults and alone accounts for approximately 2/3 of all hydatid localizations

Hepatic hydatidosis is a reputedly benign disease, but can become serious at because of its complications. The most common complication is fistulization of the cyst in the bile ducts which constitutes a turning point in the evolution of the disease and which risks involving the life-threatening.

Its diagnosis is based on clinical, radiological and biological arguments.

Currently its treatment is essentially surgical, but it is a source of operative difficulties and postoperative complications.

Given the diversity of therapeutic modalities for biliary-cystic fistulas

Our case is about a rupture of KHF in the bile ducts complicated by cholangitis in a patient admitted for treatment of severe sepsis on cholangitis

Case Report

A 57-year-old patient history: treated for pulmonary tuberculosis in 1986 and 2000 declared cured, never operated.

Admitted to emergency for management of cholestatic jaundice (conjunctival jaundice, discolored stools, dark urine pruritus) evolving for 15 days associated with a quantified weight loss of 10 kg.

General admission exam: Conscious, WHO: 0, hemodynamically and respiratory stable, BMI: 20 Kg/m², conjunctival jaundice, T°: 39°C, Diffuse scratch lesions.

The examination of the digestive tract and the rest of the somatic examination is unremarkable.

The biological workup showed : blood count: HB 12;8 GB 12000 PLQ: 138 000 ,Liver cytolysis: TGO 226 TGP 231, biological cholestasis: GGT 1075 GB 99 PAL 548, positive hydatid serology ,blood culture negative on several occasions

Abdominal ultrasound shows: segment I cyst (probably hydatid) - segment VII cyst (KHF stage IV) - portal cavernoma - lithiasic sclerotropic BV with dilation of the intrahepatic bile duct.(figure 1) (Figure 2) . The bili MRI shows: ruptured segment VIII hydatid cyst in DBR associated with signs of cholangitis -signs of portal hypertension with liver of chronic hepatopathy without suspicious focal lesion (Figure 3) . A retrograde cholangiography associated with endoscopic sphincterotomy shows thin common bile duct without visible obstacle image with extraction of micro calcul with some membrane debris. (figure 4)

During treatment, the patient was given 10 mg/kg a day of albendazole for hydatid cyst treatment; 1 g (2 × 1) ceftriaxone, and 500 mg (3 × 1) metronidazole were initiated for cholangitis antipyretic treatment and preventive anticoagulation

A pre-anesthetic visit for the sphincterotomy in order to remove the obstacle of the common bile duct

The patient is scheduled for surgery consisting of careful release of the hydatid cyst of segment IV this cyst is adherent to the vena cava and the common hepatic artery, it was then decided to carry out a resection of the protruding dome after protection of the abdomen by drapes

Retro grade cholecystectomy after control of the artery and the cystic duct.

Cholecystectomy, extraction of the hydatid material, lavage of the biliary tract with high pressure serum, placement of a kerh drain During treatment, the patient was

given 10 mg/kg a day of albendazole for hydatid cyst treatment; 1 g (2 × 1) ceftriaxone, and 500 mg (3 × 1) metronidazole were initiated for cholangitis antipyretic treatment and preventive anticoagulation a pre-anesthetic visit for the sphincterotomy in order to remove the obstacle of the common bile duct

The patient is scheduled for surgery consisting of careful release of the hydatid cyst of segment IV this cyst is adherent to the vena cava and the common hepatic artery, it was then decided to carry out a resection of the protruding dome after protection of the abdomen by drapesretro grade cholecystectomy after control of the artery and the cystic duct Cholecystectomy, extraction of the hydatid material, lavage of the biliary tract with high pressure serum, placement of a T-tube drain (Figure 5) (Figure 6)

The patient's postoperative course was uneventful, and he was discharged on the 6th postoperative day. Histopathologic examination showed a hydatid cyst. The patient received albendazole 400 mg twice daily for three cycles. After six months of clinical and ultrasonographic follow-up, no recurrence occurred. The T-tube drain was remove at 30 days after cholangiography

The patient's postoperative course was uneventful, and he was discharged on the 6th postoperative day. Histopathologic examination showed a hydatid cyst. The patient received albendazole 400 mg twice daily for three cycles. After six months of clinical and ultrasonographic follow-up, no recurrence occurred. The kerh drain was remove at 30 days after cholangiography.

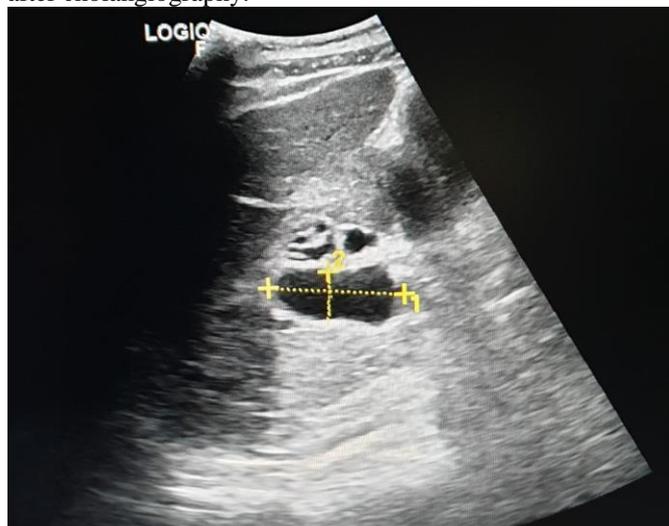


Figure 1. an elongated stage IV hydatid cyst of 2.5 cm of

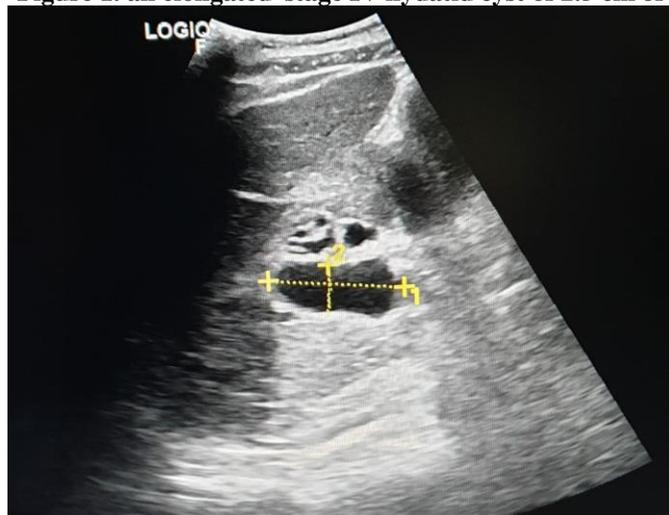


Figure 2. segment VII cystic lesion stage I of segment

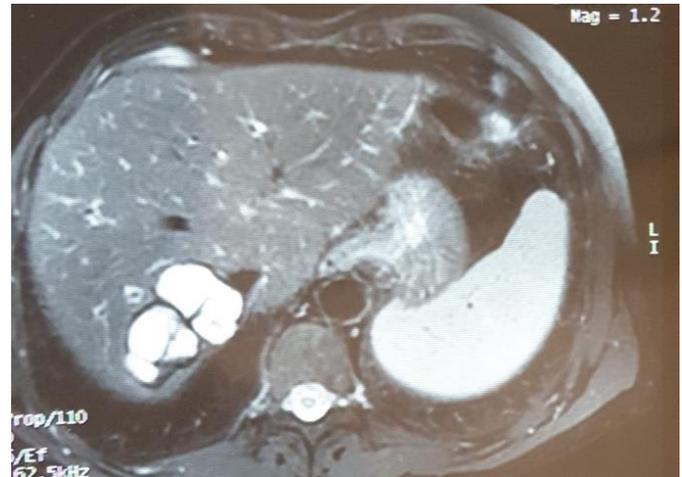


Figure 3. Dilatation of right bile ducts ; Hydatid cyst of SIV



Figure 4. Portal cavernoma.

Discussion

Hydatidosis is a common pathology in Morocco and surrounding countriesMediterranean and it still constitutes a public health problem in our country. It is due to the development in humans of the larva of a cestode called *Echinococcus Granulosus*.(1)The liver (70–80%) and lungs (15–25%) are the most common sites of hydatid cysts, but involvement of other organs is also possible (2) (3). The exact incidence of extrahepatic cysts is not known he liver (70–80%) and lungs (15–25%) are the most common sites of hydatid cysts, but involvement of other organs is also possible. The exact incidence of extrahepatic cysts is not known (4). The frank biliary(5) communication has been reported in only 5–15% of cases It occurs in the right duct in 55–60% of cases, in the left duct in 25–30%, and rarely in the biliary confluence or gallbladder (6). Our patient has a hydatid cyst of segment IV open in the gallbladder.(4). The frank biliary communication has been reported in only 5–15% of cases (5). It occurs in the right duct in 55–60% of cases, in the left duct in 25–30%, and rarely in the biliary confluence or gallbladder (6). Our patient has a hydatid cyst of segment IV open in the commun bil duct.

Surgical intervention is the optimal treatment in hydatid cyst, and treatment options include the sterilization and drainage of hydatid cyst followed by radical (total cystopericystectomy) or conservative (partial pericystectomy) excision along with cholecystectomy. Following common biliary duct investigation and biliary lavage, T-tube drainage or transduodenal sphincteroplasty may be carried out,particularly if fistula is larger than 5 mm and if

preoperative endoscopic retrograde cholangiopancreatography (ERCP) was not performed. The preoperative ERCP obviates the necessity of choledochotomy and T-tube drainage by performing sphincterotomy or stent placement(2)(3)(4)



Figure 5. Post-operative image



Figure 6. cholangiography

Conclusion

Rupture of liver hydatid cyst in the gallbladder is extremely rare even in endemic areas. Treatment remains essentially surgical, and health education of the population in endemic areas remains the best mean of prevention.

Competing interests

The authors declare no competing interest.

References

1. Sparchez Z., Osian G., Onica A., et al. Ruptured hydatid cyst of the liver with biliary obstruction: presentation of a case and review of the literature. *Roman Journal Gastroenterology*. 2004;13:245–250. [PubMed] [Google Scholar]
2. Krasniqi A., Hoxha F. T., Nuhiu B., et al. Results of different surgical methods in management of hepatic hydatidosis. *Medicinski Arhiv*. 2006;60(6):23–25. [PubMed] [Google Scholar]
3. Pedrosa I., Saíz A., Arrazola J., Ferreirós J., Pedrosa C. S. Hydatid disease: radiologic and pathologic features and complications. *RadioGraphics*. 2000;20(3):795–817. doi: 10.1148/radiographics.20.3.g00ma06795. [PubMed] [CrossRef] [Google Scholar]
4. Kumar R., Reddy S. N., Thulkar S. Intrabiliary rupture of hydatid cyst: diagnosis with MRI and hepatobiliary isotope study. *The British Journal of Radiology*. 2002;75(891):271–274. doi: 10.1259/bjr.75.891.750271. [PubMed] [CrossRef] [Google Scholar]
5. Gharbi H. A., Hassine W., Brauner M. W., Dupuch K. Ultrasound examination of the hydatid liver. *Radiology*. 1981;139(2):459–463. doi: 10.1148/radiology.139.2.7220891. [PubMed] [CrossRef] [Google Scholar]
6. Rigas A. M., Karatzas G. M., Markidis N. C., et al. Primary hydatid cyst of the gallbladder. *British Journal of Surgery*. .1979;66(6):p. 406. [PubMed] [Google Scholar]