

Biliary hydatidosis

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INTRODUCTION

Hepatic hydatid cyst rupture into the biliary tree occurs in 5-25% of patients and constitutes the most common complication of hepatic echinococcal cysts. In this setting, endoscopic retrograde cholangio-pancreatography (ERCP) plays a pivotal role in the therapeutic management of the disease, even as a definite therapy in some cases.

CASE REPORT

A 17-year-old male with no prior medical history and no epidemiological risk factors for echinococcosis was referred because of upper right quadrant pain, fever (38.5 °C) and jaundice of abrupt onset. Laboratory tests showed mild leukocytosis (white blood cell count: 17,000/mm³), of which 48.3% were eosinophils, and liver function impairment (bilirubin 6 mg/dL, GOT 113 IU/l, GPT 398 IU/L, GGT 452 IU/L). Abdominal ultrasound (Fig. 1) revealed two large lesions in the liver – one measuring 7 x 5.5 cm in segments VI-VII, circular, hyperechogenic with hypoechoic central areas and peripheral calcium deposition; and one measuring 2.5 x 3 cm, with typical cyst features, collapsed, with thickened walls, having hyperechoic contents, and communicated (Fig. 1, white arrow) with the biliary tree at the level of the hepatic-common duct junction. Moreover, a marked dilatation of intrahepatic bile radicles and the common bile duct was detected, as well as a distal occupation of the latter by hyperechoic filliform material; it all was suggestive of two hydatid cysts in different evolutionary stages with intrabiliary rupture of the smaller echinococcal cyst. Hydatid serology was positive at high titers (> 1/1024), so albendazole (400 mg b.i.d) was added to broad-spectrum antibiotics, resulting in a favorable clinical outcome. A week later ERCP was performed, which showed a global dilatation of the biliary tree with several laminated defects occupying the distal common bile duct (Fig. 2, left). After sphincterotomy, multiple white germinative membranes were removed with the help of an occlusion balloon (Fig. 2, central image), while cholangiography with distal common bile duct tamponade could not demonstrate the presence of a fistulous tract between the cyst and the biliary tree (Fig. 2, right). Subsequently, the patient underwent elective surgery without further complications.



Fig. 1.

DISCUSSION

The treatment of choice for hepatic echinococcosis usually involves antihelminthic therapy and surgical resection or percutaneous aspiration. However, when hydatid material (daughter cysts, hydatid membranes) is released into the biliary tree through a fistulous tract, an ERCP is mandatory before surgery on several reasons (1): a) to ensure the retrieval of hydatid biliary material in order to treat or prevent biliary obstruction complications, mainly acute cholangitis; b) to identify the fistulous tract (sometimes, like in this case report, it cannot be detected due to complete release of material, fistula closure secondary to occluding hydrating material, communication at the level of small tributaries, high intracystic pressure, etc.), and attain

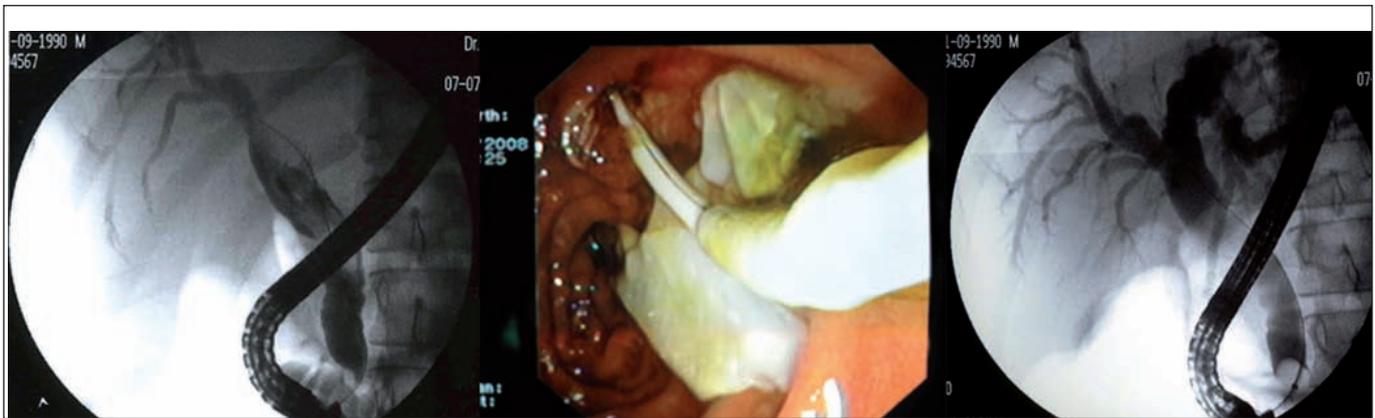


Fig. 2.

fistular closure by means of biliary stenting or nasobiliary drainage proximal to the fistula; and c) to carry out an endoscopic sphincterotomy, which reduces the incidence of postoperative biliary fistulas, the main postoperative complication, since it favors cyst and biliary drainage into the duodenum (2).

In large and solitary cysts, high-debit fistulas, and severe surgical risk patients, endoscopic papillotomy may suffice to achieve progressive cyst evacuation without surgery (3,4). Regardless of management, antihelminthic drugs should be always started prior to endoscopic or surgical therapy in order to inactivate intracystic material and minimize allergic disorders or postoperative recurrence.

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