A wormy surprise: ERCP for intrabiliary drainage of a hydatid cyst

A 41-year-old man with a known hepatic hydatid cyst presented with several months of abdominal pain and more recent onset of jaundice. Despite repeated courses of albendazole, he reported no clinical improvement. Upon presentation, he underwent magnetic resonance cholangiopancreatography (MRCP), which revealed a multifoculated cystic structure within hepatic segments 5 and 6, measuring approximately 7 × 4.5 × 6.5 cm with mildly enhancing septations, and diffuse intrahepatic biliary ductal dilatation (Fig. 1). The patient underwent an endoscopic retrograde cholangiopancreatography (ERCP) with the initial cholangiogram showing a hilar filling defect, a common bile duct (CBD) stricture, and dilated intrahepatic ducts in segments 5 and 8 (Fig. 2a). A biliary sphincterotomy was performed and the cholangioscope was advanced over the wire into the CBD, where cyst membranes were visualized mid-duct (Fig. 2b, Video 1). The CBD was then dilated with a balloon catheter and copious amounts of cyst membranes were swept from the duct (Fig. 2c). The cyst membranes were collected with a Roth Net and sent to microbiology. After multiple balloon sweeps, the cholangioscope was re-inserted into the bile duct and complete clearance of cyst membranes was confirmed. A 10-Fr × 7-cm straight plastic stent was deployed in the CBD at the end of the procedure. The patient was treated with albendazole and returned a few days later for an extended right hepatectomy. His postoperative course was complicated by a bile leak that required repeat ERCP and placement of a long plastic stent to cover the defect causing the observed leak.

The patient was seen at follow-up and continues to remain free of both symptoms and cysts.

While surgical resection has been the mainstay in the approach to the management of hepatic hydatid cysts, ERCP can be a useful modality both to aid in the diagnosis of hepatic cyst extension into the bile ducts and for therapeutic drainage of the tapeworm cyst and membranes.

Competing interests

Reem Z. Sharaiha is a consultant for Boston Scientific and Apollo Endosurgery.

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Fig. 1 Magnetic resonance cholangiopancreatography image showing a multifoculated cystic structure within hepatic segments 5 and 6, measuring approximately 7 × 4.5 × 6.5 cm with enhancing septations, and diffuse intrahepatic biliary ductal dilatation.

Fig. 2 Images from the endoscopic procedure to remove cyst membranes from the common bile duct showing: a a hilar filling defect on the initial cholangiogram, along with a common bile duct stricture and dilated left and right intrahepatic ducts in segments 5 and 8; b cyst membranes in the mid-duct on cholangioscopy; c the cyst membranes being swept through the ampulla using a balloon catheter.
Video 1 Intrabiliary drainage of a hydatid cyst through cholangioscopy-guided endoscopic retrograde cholangiopancreatography.