INTRODUCTION

Hydatid cyst caused by *Echinococcus granulosis* (EG) is a global parasitic infection, especially in sheep and subsistence farming communities. It may be asymptomatic or may lead to lethal complications. One of the complications is rupture of the hydatid cyst because of high pressure in it. Endoscopic retrograde cholangiography (ERCP) is being extensively used in diagnosis and treatment of hepatic complications of hydatid cysts.¹,²

We report a case of a female patient who had hydatid cyst in her left lobe of liver that had ruptured into the common bile duct (CBD) which led to a partial biliary tract obstruction and cholangitis.

CASE REPORT

A 26 years old lady, resident of district Attock, reported with a 2 months history of fever, upper abdominal pain and weight loss. Her abdominal ultrasonographic scan revealed a complex cystic mass in left lobe of liver suggestive of hydatid cyst that was confirmed on magnetic resonance imaging of abdomen and magnetic resonance cholangiopancreatogram. With strong suspicion of a hydatid cyst, endoscopic retrograde cholangiogram was performed which confirmed the diagnosis. During the procedure, hydatid membranes protruding from the papilla were removed after sphincterotomy. She was put on albendazole 400 mg twice daily after the procedure and showed a remarkable clinical improvement.

Key words: Upper abdominal pain, Biliary tract, Hydatid cyst, Endoscopic treatment.

ABSTRACT

A lady aged 26 years reported with a 2 months history of fever, upper abdominal pain and weight loss. Her abdominal ultrasonographic scan revealed a complex cystic mass in left lobe of liver suggestive of hydatid cyst that was confirmed on magnetic resonance imaging of abdomen and magnetic resonance cholangiopancreatogram. With strong suspicion of a hydatid cyst, endoscopic retrograde cholangiogram was performed which confirmed the diagnosis. During the procedure, hydatid membranes protruding from the papilla were removed after sphincterotomy. She was put on albendazole 400 mg twice daily after the procedure and showed a remarkable clinical improvement.

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noted in left lobe liver, appearing predominantly hyperintense (Figure 2). Few branches of the hepatic duct were communicating with the lesion. It measured approxi-mately 3.89 centimeters (cm) anteroposteriorly and 5.3 cm transversely, while its craniocaudal extent was 6.5 cm. This area showed an internal air fluid level. The findings were suggestive of a hydatid cyst in the left lobe of liver communicating with left biliary system (Figure 2). She was prescribed oral tablet albendazole 400 mg twice daily, for 6 months. On her regular follow-up visits, at monthly intervals, she showed a remarkable recovery; regained her lost weight and became active, while remaining afebrile at all time.

**DISCUSSION**

There are four forms of hydatid disease. *Echinococcus granulosis* is the most common and gives rise to cystic hydatid disease (CHD). 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 developing hydatid cyst has three layers. The outer pericyst is composed of host fibroblasts, eosinophils, giant cells and modified hepatocytes. The middle laminated membrane is acellular and impermeable to bacteria, and the innermost layer, the germinal layer or brood capsule, is translucent; which is the origin of scolices and daughter cysts within the primary cyst. Symptoms may include epigastric/abdominal discomfort or pain, malaise, weight loss, indigestion, liver mass or dizziness most likely when the cyst has grown enough to cause pressure on adjacent organs or when a complication occurs. Upto 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.

There are two types of communications with the biliary tree: frank intrabiliary rupture and simple communication. Patients with simple communications may be asymptomatic, with the communications identified only during surgery. In contrast, patients with frank intrabiliary ruptures are usually symptomatic. The elements of cyst (scolices and daughter cysts) drain into the biliary ducts and cause intermittent or complete obstruction of bile duct, resulting in obstructive jaundice, cholangitis, and sometimes cholangiolytic abscesses as happened in this case. USG is particularly useful for the detection of cystic membranes, septa and the hydatid sand. Computed tomography (CT) best demonstrates the cyst wall calcifications and added infection. CT and magnetic resonance imaging (MRI) may demonstrate cyst wall defects as well as the passage of contents through a defect. The sensitivity of MRCP is 91.7% and the specificity 82.8% for identification of intrabiliary rupture.

Endoscopic treatment is one of the therapeutic options of a ruptured hepatic hydatid cyst into the biliary tract and it is both safe and effective. In this case, there was a complex hypoechoic mass on abdominal USG with a strong suspicion of hepatic cyst having ruptured into the biliary tree, that was confirmed on MRCP. Hence, ERCP was carried out that supported the findings, and hydatid membranes were extracted out. The role of ERCP is diagnostic, as well as a therapeutic one as elucidated by Durrani et al. This simple and novel method in the hands of an experienced physician can be very useful. The success rate of endoscopic treatment appears to be satisfactory at 90 – 100% in patients without a history of surgery minimizing both complications as well as cost of such surgeries, particularly in a cost restrained health setup like ours.

**REFERENCES**


