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A CASE REPORT ON GIANT HEPATIC HYDATID CYST

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ABSTRACT
Hepatic hydatidosis is common in many parts of our country, and cysts can reach very large sizes. We encountered a case of giant hydatid cyst originating from the left lobe of liver. It was completely infesting the abdomen, and additional many cysts were seen in the left and right lobe of liver. Diagnosis was confirmed by abdominal magnetic resonance imaging. Left hepatectomy and partial cystectomy was performed for curative treatment of all cysts.

INTRODUCTION

Hydatid disease (HD) is a helminthic zoonosis with worldwide distribution [1]. A mature cyst consists of a layer of living tissue, which includes the germinal layer that surrounds the fluid-filled central hydatid cavity and the laminated membrane together forming endocyst. The compression of the host tissue around the endocyst produces a fibrous layer called ectocyst or pericyst [2]. Pericyst restricts the growth of cyst. However, it rarely grows into the abdominal cavity and can reach very large sizes [3].This paper aimed to present an unusual case of a giant hydatid cyst (GHC) originating from the left lobe of the liver with exophytic growth into the abdomen.

Case report

A 34-year-old woman admitted to our clinic with the complaint of a huge abdominal swelling of 3 years' duration (Figure 1). The huge mass was diagnosed as a hydatid cyst two years ago while the patient is pregnant, but the patient did not accept the operation (Figure 2).

Complete blood count, serum biochemistry and urinary parameters were normal. There was no history of fever, jaundice, or cholangitis, and radiologic evidence of bile duct dilatation as an indicator of cysto-biliary communication. Abdominal magnetic resonance imaging (MRI) showed a 32x25-cm loculated cyst originating from the left lob of the liver (Figure 3A), and additional two cysts (6 and 8 cm diameter) were detected in the left hepatic lob (Figure 3B). Also multiple hydatid cysts (diameter of 2 to 6 –cm) were diagnosed in the right lob of the liver. The patient was taken to operation with the diagnosis of GHC. On examination, a huge, thin-walled cyst with daughter vesiculae was found to be filling the abdomen which originating from the left lobe of liver. Cyts wall was punctured and about 10 litres of fluid was aspirated from the cyst cavity (Figure 4). Left hepatectomy was performed to remove all of the cysts located the left lobe. Partial cystectomy was performed for cysts in the right lobe. Postoperative period was uneventful and the woman was discharged at postoperative day 6.

DISCUSSION

Hydatid disease is a chronic parasitic infectious disease caused by the larval stage of Echinococcus granulosus and is endemic in many parts of the world (1). The most commonly affected organ is the liver (75%), followed by the lungs (15%). Report shows that hepatic hydatid cysts grow 2 to 3 centimeters annually; this is related to the surrounding tissue resistance. The symptoms of hydatid disease are related primarily to the mass effect of the slowly enlarging cyst such as abdominal pain, jaundice, portal hypertension or a visible abdominal mass [4]. Large cysts are called giant hydatid cyst and fairly rare

even in endemic areas. GHC usually shows an exophytic growth into the abdomen, and it can fill the abdominal cavity. There are three treatment options for hepatic cystic echinococcosis: chemotherapy, percutaneous drainage, and surgery or a combination of these therapies [5]. However, the use of chemotherapeutic agents alone, such as albendazole, is controversial because of their limited efficacy. These antiparasitic drugs are often administered as adjuvant therapy during surgery or percutaneous treatment. In selected cases, they can be the primary approach when surgery is not feasible or is unsafe [6]. Although certain types of hydatid cysts are successfully treated by PAIR (Puncture, Aspiration, Injection, Reaspiration), surgery remains the mainstay of treatment for HD and aims to eliminate the parasite, promoting the rapid disappearance of any residual cavity and preventing complications and recurrence. Ultrasonography (US) is the first diagnostic technique for hepatic HD. Computed tomography (CT) and MRI may display the same findings as US; however, calcification of the cyst wall or internal septa is easily detected with CT. MRI has more multiplanar capability, excellent contrast resolution for soft tissues, and it is more accurate in defining anatomical relationships, may also be used in pregnant women.

Figure 1. Hydatid cyst leading to abdominal distention

Figure 2. MRI images of cyst and fetus obtained 2 years ago

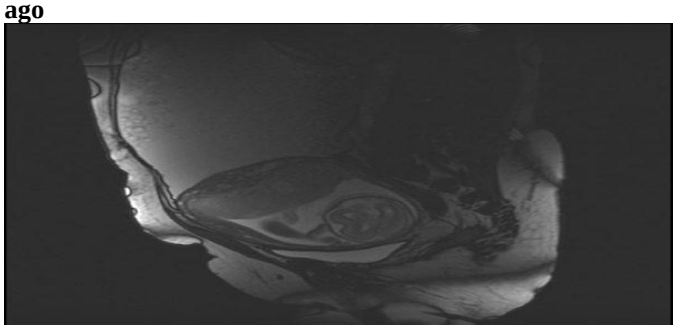

Figure 3. MRI scan showing giant cyst occupying whole peritoneal cavity (A), two additional cysts were located in the left lobe of liver (B)

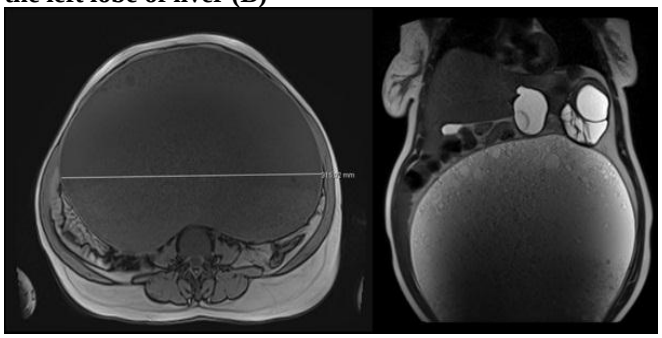

Figure 4. Evacuation of cystic contents

CONCLUSION

We report that a hydatid cyst can, rarely, reach an extremely large size, and that these giant cysts need radical therapy because they might lead to perforation and anaphylaxis in some patients. It is an interesting fact that the patient had a vaginal delivery whiles this cyst in the abdomen.

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