

CASE REPORT

GIANT HYDATID CYST OF LIVER: A CASE REPORT WITH REVIEW OF LITERATURE

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ABSTRACT: Giant hydatid cysts (HCs), especially those that are superficial and those in vital anatomic locations, are prone to abdominal trauma and rupture. Surgery has been the mainstay of therapy for large Hydatid cysts. We report a case of giant hydatid cyst who presented with an abdominal mass originating from the right lobe of the liver.

KEYWORDS: Hydatid cyst, Echinococcus granulosus, Pericystectomy.

INTRODUCTION: Hydatid disease (HD) is prevalent and widespread in most sheep-raising countries in Asia, Australia, South America, the Far East, Southern Europe and in Mediterranean countries, including Turkey. Echinococcosis is a zoonosis caused by the larval stage of Echinococcus granulosus (EG). EG is a cestode and is often manifested by a slowly growing cystic mass.^{1,2,3,4} The most commonly affected organ is the liver (75%), followed by the lungs (15%).^{1,2,4}

Surgery remains the mainstay of treatment for Hydatid disease and aims to eliminate the parasite, promoting the rapid disappearance of any residual cavity and preventing complications and recurrence.^{2,4,5} Giant HC is life threatening but rare. It has potentially lethal complications, such as anaphylactic shock due to perforation, thus early diagnosis with definitive treatment is life-saving.⁶

CASE REPORT: A 30 year old female patient come to our OPD with complaints of mass per abdomen associated with dragging type of pain in right upper quadrant since 2 yrs. No history of cough, fever, jaundice and breathlessness. On examination of abdomen a lump present occupying right hypochondrium and right lumbar extending to epigastric region which is moving with respiration. Routine laboratory tests were normal and Screening Casoni's test and Indirect Haemagglutination test are positive. On performing USG abdomen there is a single large thin walled non-enhancing hypoechoic lesion of size 16 cm X 12 cm is noted in right lobe of liver. we further investigated with CECT abdomen and it showed a cyst of size 19 x 12 cm occupying the right lobe and extending to left lobe with thin rim of parenchyma separating from the surface and there is no abnormality of bile ducts.

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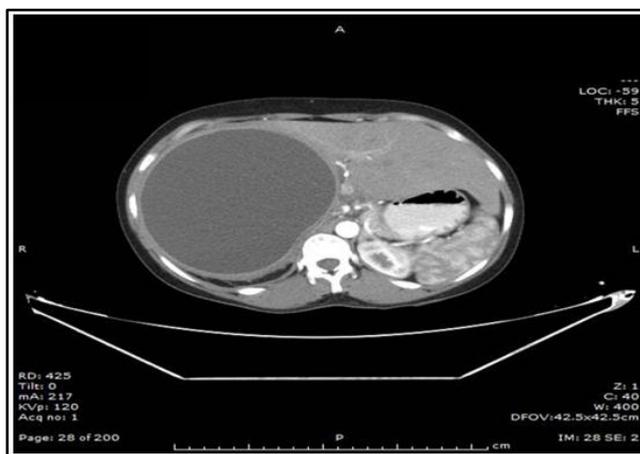


Fig. 1: CECT showing Hydatid cyst in Right lobe of liver

We started preoperatively Albendazole four days prior to the surgery with the diagnosis of giant Hydatid cyst. Intra-operatively a huge, thin-walled cyst was found to be filling the entire right lobe and extending to left lobe of liver and pushing the stomach, intestine to the left, hepatic flexure to downwards (Fig. 2). First by taking all necessary precautions cyst was aspirated and then Pericystectomy with omental packing was performed. Postoperative period was uneventful and the woman was discharged at postoperative day 7.



Fig. 2: Intra operative photograph showing huge cyst occupying whole of the right lobe & extending to left lobe liver.

DISCUSSION: Hydatid Disease(HD) is endemic in tropical and subtropical regions such as the Mediterranean basin including Turkey, South America, Near East, Southern Europe, Africa and Australia.^{1,2,3,4} In these areas, hydatidosis is known to be the source of serious human illness. Echinococcus granulosus(EG) is the causative agent of HD. EG is a cestode that grows in the small intestine of its definitive host, usually a dog. Eggs are eliminated in the feces and, when ingested, liberate their larvae in the duodenum of an intermediate host (cows, sheep). Humans are accidental hosts of this parasite, usually becoming infected through contact with infected

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dogs.^{1,2,3,4} The larvae cross the intestinal wall via the portal system and reach the liver, where they form cysts. Although cysts may develop in almost any part of the body, the location is mostly hepatic (75%) or pulmonary (15%); only 10% occur in the rest of the body.^{1,2,3,4}

Direct HC rupture occurs when both the endo- and pericysts are torn, spilling cyst material into body cavities or adjacent hollow viscera.⁷ It may occur spontaneously, or it may result from trauma or surgery. The HC fluid is highly allergenic, hence the high risk of anaphylaxis and death.^{2,4,6} Several reports describe cyst penetration into blood vessels or gastrointestinal tract lumen.^{6,7} Direct rupture may cause massive intra-abdominal hemorrhage or biliary peritonitis.^{6,7} The incidence of HCs rupturing into the peritoneal cavity is unclear.⁷ Whether peritoneal spillage leads to a higher rate of recurrence remains unproven, although it may give rise to secondary cysts.⁶ Cyst rupture into the liver parenchyma occurs when cyst contents penetrate adjacent parenchyma without reaching the peritoneal cavity.^{6,7}

Rupture of the hepatic HC due to high intracystic pressure is one of the most serious complications. Cyst rupture into the biliary tract, which causes cholestasis, occurs in 5% to 17% of cases.^{8,9} Anaphylaxis and death secondary to ruptured abdominal hydatid cyst is well known.⁶ This case report demonstrates a huge HC which did not cause complication such as perforation for 2 years, despite having a very thin wall (2 mm) and being prone to trauma by its location, anterior to the visceral organs.

The ideal treatment for HD should completely eliminate the parasite from the body and prevent recurrence of the disease. Surgery has been the mainstay of therapy for large cysts, those that are superficial which are likely to rupture, infected cysts and those in vital anatomic locations or exerting substantial mass effect.^{1,2,4,6} The cyst should be completely removed without any spillage after inactivation of the daughter cysts.

CONCLUSION: Huge HCs can cause anaphylactic shock and death upon rupture. In this case, we present a patient with a cyst that reached a huge diameter without any complications and activity limitations. In similar patients, it is important to remain aware that minimal trauma may lead to cyst perforation with anaphylaxis. To prevent the complications in huge HC surgery is the main stay of treatment.

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