

# A rare case of primary disseminated abdominal hydatidosis

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## Abstract

Primary peritoneal hydatidosis is rare and accounts for 2% of all abdominal hydatidosis. Very few cases are reported in literature so far. We report a case of a 46 year old woman presented with complaints of pain abdomen and recurrent fever of one month duration. On physical examination abdomen was distended and a mass was palpated in the lower abdomen and left lumbar region. Contrast-enhanced CT scan of the abdomen showed multiple intra peritoneal cystic lesions with minimally enhancing walls and similar lesions in liver and spleen. Cysts were excised and pathological analysis was consistent with hydatid cysts.

**Keywords:** Primary disseminated abdominal hydatidosis, hydatid cysts, peritoneal hydatidosis.

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## CASE REPORT

A 46 year old woman presented with complaints of pain abdomen and recurrent fever of one month duration. Patient was apparently asymptomatic till one month back when she developed insidious onset of pain abdomen which was gradually progressive and predominantly in the lower half of abdomen. Patient also complained of intermittent episodes of low grade fever of the same duration. No associated loss of weight/appetite. No past history of similar complaints or surgery was documented. Patient was evaluated in a peripheral hospital for the same complaints and as part of the work up an ultrasound of the abdomen was performed which was reported as multiple mesenteric cysts. Patient was referred to our hospital for further management. On physical examination abdomen was distended and a mass was palpated in the lower abdomen and left lumbar region.

Laboratory evaluation revealed borderline elevation of total leucocyte count (11,000 cells per microliter) and a differential eosinophil count of 11.6%. Rest of the laboratory investigations were within normal limits. Patient underwent a contrast-enhanced CT scan of the abdomen which showed multiple intra peritoneal cystic lesions with minimally enhancing walls (figures 1 and 2). The largest lesion was seen in the right lumbar region. Internal floating membranes were seen in one of the cysts in the infraplenic region (figure 3). Similar cysts were also seen embedded in the liver and spleen (figure 4). None of the cysts showed internal calcifications/haemorrhage/enhancing components. Chest radiograph did not show any mediastinal/lung lesions. ELISA and PCR tests could not be done due to cost constraints. Patient underwent laparotomy with excision and de-roofing of the cysts followed by peritoneal lavage. Post-operative period was uneventful. Gross specimen contained multiple cysts largest measuring 11x8x7cms. Granular serous fluid and laminated grey white membrane along with myxoid areas were seen within the cysts. Microscopic examination revealed typical outer laminated layer and inner germinal layer which was consistent with hydatid cysts. Patient was prescribed Albendazole 400 mg BD for three months and discharged. Patient has been advised follow up after 3 months.

## DISCUSSION

Hydatid disease is azoonotic disease caused by tape worm *Echinococcus granulosus* and rarely by *Echinococcus multilocularis*. It is a common parasitic infection of the liver in countries where animal husbandry is common. Dogs and other carnivores are definitive hosts, whereas sheep or other ruminants are intermediate hosts. Man becomes an accidental intermediate host by ingestion of eggs which develop into cysts<sup>1</sup>. The most common symptom is abdominal pain followed by pressure effect and fever<sup>2</sup>. Liver is the most commonly involved organ followed by lungs<sup>3</sup>. Peritoneal hydatidosis is usually secondary to traumatic, spontaneous and iatrogenic rupture of liver or splenic hydatid cysts<sup>4</sup>. Primary peritoneal hydatidosis is rare and accounts for 2% of all abdominal hydatidosis and no definite cause has been ascertained but presumed to be disseminated via lymphatic or systemic route<sup>5,6,7</sup>. Diagnosis is by imaging and laboratory serological tests like

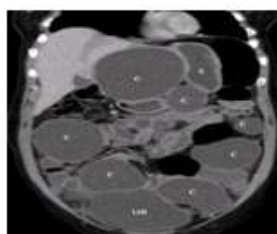
immunoelectrophoresis and ELISA. Apolymerase chain reaction (PCR) using recombinant DNA antigen is used to identify the species of *Echinococcus*<sup>3</sup>. ELISA is the most commonly used test<sup>8</sup>. Surgery is the treatment of choice for abdominal hydatidosis with preoperative courses of Albendazole to sterilize the cyst, decrease the chance of anaphylaxis and to reduce the recurrence rate post-operatively. Also intra operative peritoneal lavage with colicidal agents like hypertonic saline or povidone iodine reduces the anaphylaxis and recurrence<sup>9</sup>.

## CONCLUSION

We report this case to impart the awareness to all the fellow medical colleagues that any cystic lesion with no clear features of malignancy in the abdomen should include a differential of hydatid cyst even in the absence of classical imaging features especially in the endemic regions.



**Figure 1:** Axial CECT – Multiple cysts (C) are seen in the peritoneum Uterus (U)



**Figure 2:** Coronal CECT – Multiple cysts (C) are seen in the peritoneum Urinary bladder (U), Stomach (S)



**Figure 3:** Axial CECT – One of the cyst (C) in the left lumbar region shows floating membranes within (arrows)



**Figure 4:** Axial CECT – Multiple cysts (C) are seen within the liver and the spleen. Stomach (S)

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