

# Disseminated Abdomen Hydatidosis: A Case Report

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**Abstract:** *Hydatid disease is relatively frequent in India and non-invasive ultrasonic imaging techniques have made possible an earlier diagnosis prior to serious complications. Hydatid cyst usually occur in humans by infestation of with Echinococcus granulosus. A fifty-three-year-old female, admitted to our hospital with pain abdomen since nine months. After necessary investigations patient was taken for abdomen exploration revealed disseminated hydatid cysts in the abdomen.*

**Keywords:** disseminated hydatid cysts, Echinococcus granulosus, hydatid disease

## 1. Introduction

Hydatid disease is an infectious parasitic disease caused by the larval stage of the Echinococcus granulosus complex, E. multilocularis or E. vogeli. The countries with higher prevalence included Mediterranean countries, middle east countries, Russia, Australia, New Zealand, France, China, India [1]. The worldwide incidence of echinococcosis has been estimated to be 100,000 -3,00,000 cases annually. In India, hydatid disease is common in most of the states of which Andhra Pradesh and Tamil Nadu predominate [2]. It primarily affects the liver, lungs, and spleen. Diagnosis relies on a combination of patient history, clinical evaluation, and imaging techniques such as X-rays, ultrasonography, and CT scans. Confirmatory tests detect specific antibodies, while older tests like the Casoni test have diminished in relevance.

## 2. Case Report

**Patient Presentation:** A 53-year-old female presented to the outpatient department with complaints of intermittent abdominal pain for the past 9 months. She described the pain as dull, aching, and localized to the right upper quadrant and lower abdomen. She also reported occasional nausea, bloating, and a feeling of fullness, but denied any significant weight loss, fever, jaundice, vomiting, or changes in bowel habits. She denied any formal education and had exposure to livestock or dogs, which are common risk factors for echinococcosis. She had no significant past medical history,

denied tuberculosis contact and no known allergies. Family history was unremarkable. On physical examination, she was moderately built and nourished with following vital signs: Blood pressure 130/80 mmHg, pulse rate 80 beats per minute, respiratory rate 18 breaths per minute, temperature 36.8°C. Abdominal examination revealed mild tenderness in the right upper quadrant and lower abdomen without any guarding or rigidity. No palpable masses or hepatosplenomegaly. No signs of jaundice, ascites, or peripheral edema. The findings of her neurological examination was unremarkable.

**Laboratory Investigations:** Complete Blood Count (CBC): Within normal limits, mild eosinophilia noted. Liver Function Tests (LFTs): was normal. Serologic Testing: Positive for Echinococcus antibody, indicating exposure to the parasite.

**Imaging Studies:** Ultrasound of the Abdomen: Multiple cystic lesions covering 2/3<sup>rd</sup> of the liver with fluid in the few cysts, peritoneum, and mesentery with well-defined walls and internal septations. Findings were suggestive of hydatid cysts.

**Contrast-Enhanced CT (CECT) of the Abdomen and Pelvis:** well defined thin walled multiloculated (daughter cysts) in the right lobe of liver- Type IIa hydatid cysts. Multiple thin walled cystic lesions scattered throughout the perihepatic, perisplenic spaces, omental and peritoneal cavities. Some cysts showed septations and daughter cyst formations, consistent with disseminated hydatidosis. No evidence of biliary obstruction or liver parenchymal damage [figure 1].

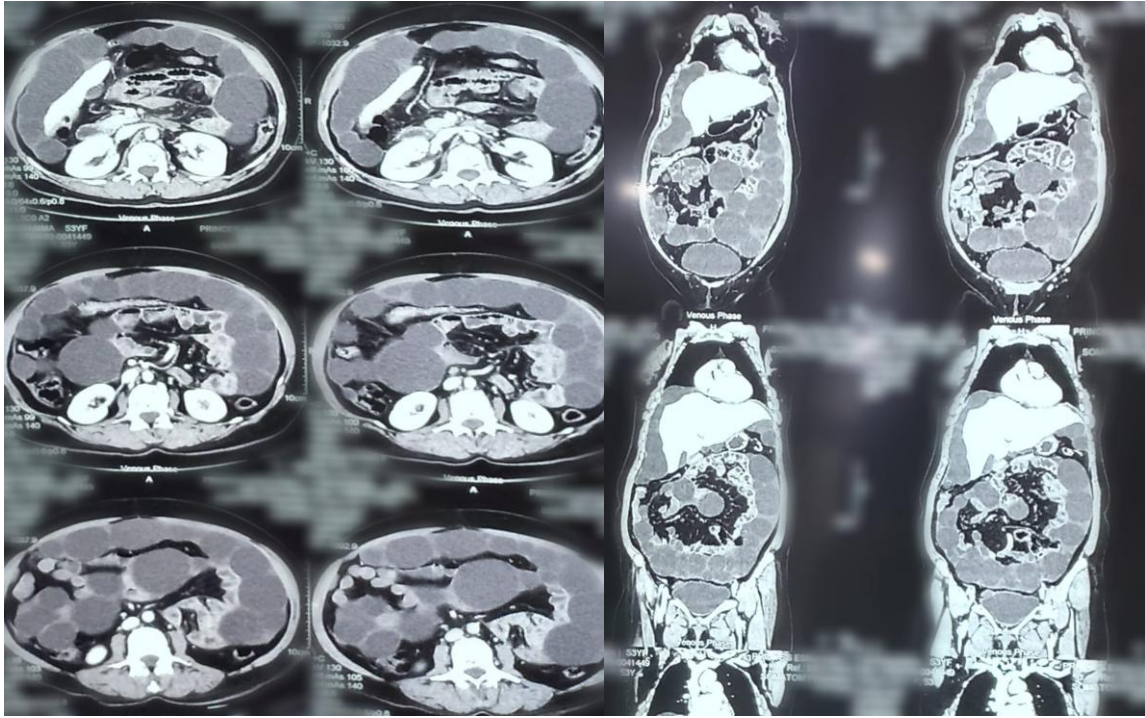


Figure 1

### 3. Diagnosis

Disseminated abdominal hydatidosis, likely secondary to ruptured primary liver hydatid cyst with peritoneal seeding.

Management: patient was started on Albendazole (15 mg/kg/day) in two divided doses to reduce cyst size and prevent further dissemination. Surgical Consultation: Considering the extensive cyst burden, a multidisciplinary surgical consultation was arranged to evaluate options for debulking or cyst drainage. Patient was elective underwent a laparotomy for disseminated abdominal hydatidosis, where multiple fluid-filled cysts were found throughout the abdomen [figure 2]. Despite maximum efforts to remove the

cysts intact, some ruptured during dissection. Prophylactically, the peritoneal cavity was irrigated with Savlon (a combination of 0.5% cetrimide and 0.05% chlorhexidine) as a scolicidal agent, Injection Hydrocortisone 100mg, injection Pheniramine maleate 22.7mg given slow intravenously. Intraoperative ultrasonography was performed to assess for any residual cysts. Intraoperative period was uneventful and hemodynamically stable. The patient was then shifted to the ICU for postoperative monitoring, but unfortunately, 12 hours after surgery, she died of cardiac arrest, likely triggered by anaphylaxis due to leakage of cystic fluid from the ruptured cysts. The specimen taken intraoperatively was sent for histopathological examination and confirmed to be a hydatid cyst.

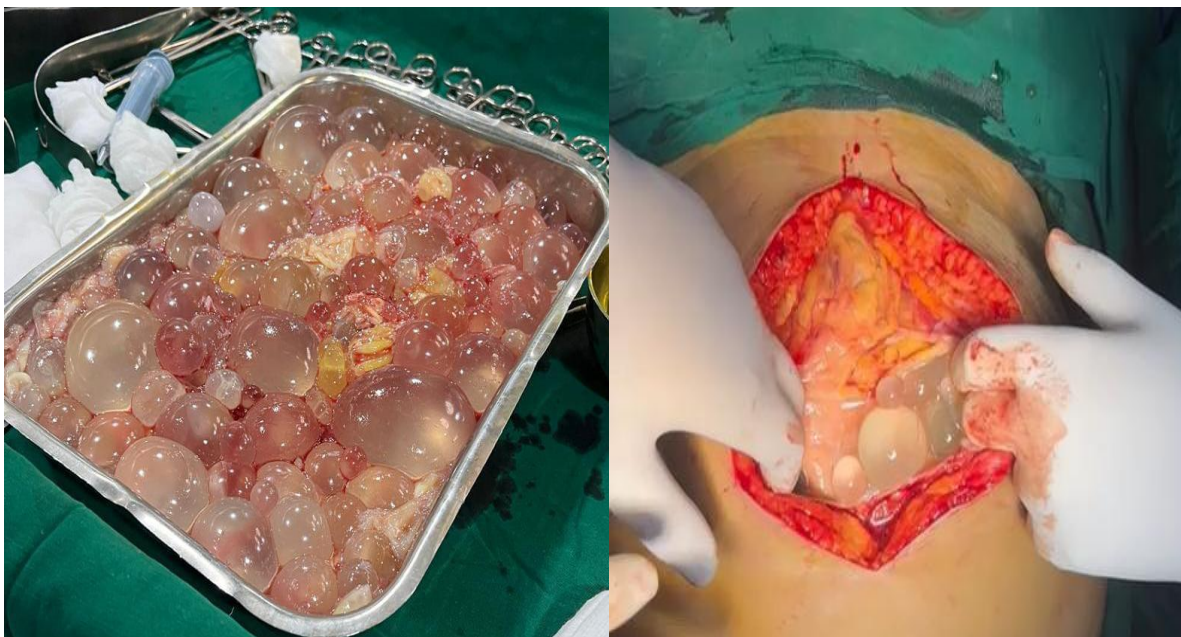


Figure 2

#### 4. Discussion

Disseminated abdominal hydatidosis is a rare but severe manifestation of hydatid disease, caused by the parasitic tapeworm *Echinococcus*, is a serious and potentially life-threatening condition. It commonly affects the liver and lungs but can disseminate to other organs, as seen in disseminated abdominal hydatidosis. This case highlights the importance of early detection and appropriate imaging to guide management. While Albendazole remains the mainstay for medical management and surgical intervention remains the mainstay of treatment, with the goal of removing cysts intact to avoid spillage and prevent anaphylactic reactions or secondary infection. However, ruptured cysts can lead to significant complications, including allergic reactions, peritoneal contamination, and the formation of new cysts. Postoperative management often involves scoliceidal agents to reduce the risk of recurrence, alongside close monitoring for any adverse reactions. Despite surgical efforts, the condition can be fatal, especially in cases with widespread cyst dissemination or where anaphylaxis occurs[5]. Long-term management typically includes anti-parasitic therapy (e.g., albendazole) to prevent recurrence and further complications. Early diagnosis, careful surgical technique, and vigilant postoperative care are critical to improving outcomes for patients with hydatid disease.

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