



## PRIMARY PERITONEAL HYDATIDOSIS: A RARE PRESENTATION OF COMMON DISEASE

### General Surgery

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### ABSTRACT

Hydatid disease caused by *Echinococcus granulosus* is endemic in many regions of the world. The major primary site for the disease in adults is the liver and the secondary site are the lungs. Secondary peritoneal cysts are relatively common and expected to occur after rupture of the primary hepatic hydatid cyst. Primary peritoneal hydatid cyst disease without any other organ involvement has been previously reported, and yet it is still considered rare (less than 2%) even in endemic areas. A case of a large primary peritoneal hydatid multicystic lesion without other organ involvement in a 36-year-old female is presented and discussed. The disease was very extensive and surgical intervention was done with complete omentectomy and peritoneal cyst deroofing with hypertonic saline lavage. The patient was then treated with albendazole. The case emphasizes the importance of hydatid disease being included in the differential diagnosis of any cyst in the abdominal cavity for patients living or coming from an area of endemic hydatid disease even without liver or lung involvement. It can also be stated that disease recurrence also might occur even after surgery.

### KEYWORDS

primary hydatid cyst, peritoneal, *Echinococcus granulosus*

### INTRODUCTION

Human hydatid cyst is a parasitic disease caused by the larvae of *Echinococcus granulosus* and was described and detailed as a human disease (intermediate host) by the contributions of many scientists such as Redi, Palas, Rudolphi and Premsek.

Primary peritoneal Hydatidosis accounts for less than 2% of all the cases with hydatid cysts. The major primary site for the occurrence of the disease in adults is the liver (75%), followed by the lungs (5–15%), and all other organs add up to 20% of cases. These percentages are different for children as the lungs form the primary site (64%) followed by the liver (28%).

Secondary peritoneal cysts are relatively common and expected to occur after rupture of the primary hepatic hydatid cyst. Primary peritoneal hydatid cyst disease without any other organ involvement has been previously reported, and yet it is still considered rare even in endemic areas.

Symptoms in patients with primary peritoneal hydatidosis are due to compression symptoms and in infrequent circumstances due to anaphylaxis.

In this article, a case study of primary peritoneal hydatid cysts filling the cavity of the abdomen and pelvis without any other organ involvement is presented and discussed. Such rare presentations if without abdominal swelling compressive symptoms can be observed and treated conservatively with Drugs like Albendazole. Large cysts causing swelling with compression symptoms have to be surgically excised after exploration.

### CASE HISTORY:

A 36 year Hindu female patient, from Mehsana working as a farmer presented with Complain of abdominal distension, gradually increasing since past 6 months with associated complain of abdominal heaviness and occasional vomiting since 7 days. Low grade fever was occasionally present since past month. Patient had no history of jaundice, anorexia or weight loss.

Per Abdomen examination revealed generalised abdominal distension with multi-lobulated appearance of abdomen with umbilicus transversely stretched and dilated veins over abdomen. Palpable cystic multi-lobulated, non-tender, palpable lump present involving entire abdomen.

### INVESTIGATIONS:

1) **Blood:** Hb:8.4 mg/dl; TC:9600/mm<sup>3</sup>; Eosinophils: 7%;

S.Creatinine:1.04 mg/dl; S.Urea:24 mg/dl;  
S.Na+:134 mEq/ml; S.K+:4.2 mEq/ml  
Total Bilirubin:1.1 mg/dl; SGPT:12.4 IU/L

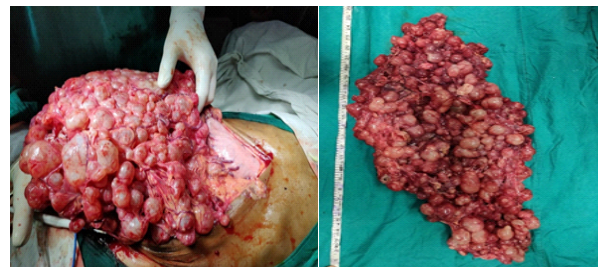
2) **Chest and Abdomen Radiographs** were unremarkable

3) **USG:** Multiple heterogenous well defined thickened walled cystic lesions noted diffusely in abdomen involving omentum, mesentery and in pelvis. Liver and spleen appears normal.

4) **CECT A+P:** large well capsulated multicystic lesion of variable size are seen filling up whole abdomen displacing small bowel loops and mesenteric vessels No calcification seen. finding s/o primary peritoneal hydatid cyst. Other abdominal organs appear to be normal.

### INTROPERATIVE FINDINGS:

Exploratory Laparotomy was undertaken keeping vertical midline incision from 2 cm below xiphisternum to 2 cm above pubic symphysis. Multiple varying sized well defined cystic lesions (Hydatid) were noted extensively in omentum, and pelvis. Total Omentectomy with debulking of cysts from abdominal cavity was done and sent for Histopathology examination. Adequate hypertonic saline wash was given Pelvic drain was kept.



### POSTOPERATIVE PERIOD:

- Uneventful. Patient was started on oral feed and Tab. Albendazole (Dose-400 mg) from POD-1.
- Pelvic drain was removed on POD-4 and patient was discharged uneventfully on POD-7.

### HISTOPATHOLOGY:

HPE report showed histology of hydatid cyst with granulation reaction and eosinophilic infiltrate in surrounding tissue from omental and pelvic cysts.

**DISCUSSION:**

Hydatid disease is a parasitic disease caused by infection with larva of the cestode *Echinococcus granulosus*. *Echinococcus granulosus* life cycle passes through 2 hosts. Humans are accidental intermediate hosts and Dogs are definite host.

Intraperitoneal hydatid cyst are usually secondary to rupture of a primary cyst in liver and spleen. A solitary Hydatid cyst in peritoneal cavity is considered as primary when no other cyst are present in other organs. The hydatid embryo gains access to the peritoneal cavity by haematogenous or lymphatic route.

**CONCLUSION:**

Primary peritoneal hydatid cyst is a rare presentation of a common disease. Patients with mass symptoms should undergo debulking surgery. Asymptomatic patients with solitary or few small cysts can be given a trial of conservative management with Albendazole with serial imaging follow-up. There are high chances of recurrence even after surgery.

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