



DISSEMINATED INTRAABDOMINAL HYDATOSIS: A RARE CASE REPORT

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ABSTRACT

Hydatid disease is a tropical disease with transmission from the cattle with humans as the accidental hosts. It is a slow growing and generally presents with obstructive symptoms. Liver is the most common site followed by lungs, other sites contribute to about 1-2%. We report here a 45 year old female patient who came with lower abdominal mass and diagnosed radiologically with ultrasound and computed tomography and treated with surgery

KEYWORDS : Hydatid disease, Echinococcus, surgery

Introduction

Hydatid disease is an infection caused by larval stages of tapeworm belonging to the genus echinococcus from the taeniidae family in the cestode class it is mainly caused by organisms Echinococcus granulosus and Echinococcus multilocularis.

It is a tropical disease especially in low-income countries. The primary hosts for the disease are dogs and cattle. Humans are accidental intermediate hosts and occur by ingesting food or drinking water infected with parasite eggs.

Cyst formation can occur in any part of the body, but the most common location is liver. Followed by lungs, Extrapulmonary and extrahepatic locations are rare and have been reported in 2% of hydatosis². Involvement of brain, heart, ovary, bone and abdominal wall has also been reported^{3,4}.

In this article, we will present a case of middle-aged women who presented with multi organ involvement with hydatid cyst.

Case report

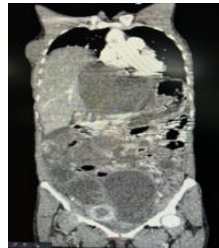
A 45 yr old female patient hailing from tumakuru presented to the surgical outpatient department with complaints of abdominal distension since 6 months which is gradually progressive and pain abdomen since 2 weeks which is insidious in onset, continuous, dull aching type, with no diurnal variation and no aggravating or relieving factors. She had no other complaints and no co-morbidities. With regular menstrual history. No h/o of previous surgeries. The patient belonged to the lower socio-economic class and had a mixed diet. There is no history of pets in the house. No recent travel history On physical examination patient is moderately build, moderately nourished with Karnofsky performance score of 80 with normal vitals and her abdominal findings are soft, umbilicus –pushed upwards, mass present in the lower abdomen of size 28*23 cm extending from the umbilicus to pelvis vertically and from flank to flank horizontally which is multilobulated, cystic in consistency and moving with respiration and skin over the swelling normal Mass of size 9*6 cm noted in the epigastric region with well-defined borders cystic in consistency moving with respiration, continuous with liver dullness with hydatid thrill present Mass of size 4*2 cm felt in the left hypochondriac region which is cystic in consistency with superior border not palpable Digital Rectal examination: sphincter spasm present, no mass/stool present she was sent for laboratory investigations with normal blood count and normal liver function test her white blood cells count was 6100 with eosinophils of 13% Her Ultrasonographic findings are multiple lesions with varying morphology in liver, spleen, and peritoneal cavity. Suggestive of extensive abdominal (peritoneal) hydatidosis (in various who stages) Mild left hydronephrosis. Likely due to mass effect from lesions in pelvis.

Trace ascites.



Few calcific cyst and few cyst shows thick walled calcification

Her Computed Tomography findings are extensive abdominal (liver, spleen, mesenteric and peritoneal) hydatiduria in various who stages. Mild left hydronephrosis due to mass effect from lesion in pelvis. trace ascites



Coronal view shows extensive variable size cysts



Sagittal image shows pelvic extension

She was started preoperatively albendazole for decrease in size of the cyst and then explorative laparotomy done where omentectomy with cystectomy was done under general anesthesia and intra op findings were omentum embedded with multiple cysts in various stages, 2 cysts in recto uterine pouch, cyst in retroperitoneum, 2 cysts along the left lobe of liver and single cyst along the spleen



Patient was given post op antibiotics and analgesics and drains were removed on post operative day 9 and discharged. She was given 3 cycles of albendazole for 3 months. Her radiological and clinical follow up after 3 and 6 months show no recurrence and is asymptomatic.

Discussion

Hydatid disease is a parasitic infection present all over the world. Though mostly common in regions of eastern Europe, south Africa, middle east, south America, Australia and Mediterranean where cattle rearing is common. There are 4 main sub types of Echinococcus - 1 E. granulosus 2 E. Multiloculæ 3 E. Vogeli 4 E. Oliganthus. Liver and lungs are often end dissemination of the cysts while other places like mediastinum, diaphragm, cardiac, smooth and skeletal muscle, abdominal⁴, omentum³, peritoneal⁶ and chest wall are involved rarely. The disease is asymptomatic and found accidentally. Depending upon the size and site various symptoms can occur.

Echinococcus passes through 3 developmental stages in their life cycle⁷ in adult form they reside in host intestines, and these are carnivore most commonly dogs, and their eggs when ingested by intermediate host such as pigs, camel, cattle, goats and sheep they form meta cestode once the eggs reach the Gastrointestinal system they will rupture and larvae emerge these larvae penetrate the intestinal wall and reach the hepatic sinusoids through portal system. Most cysts are asymptomatic but the symptoms are due to the pressure from the cyst the other complications are due to rupture of cysts⁸ such as anaphylaxis, fever, disseminated spread, peritonitis, bile leak⁹ and fistula formation.

Diagnosis is made by history, physical examination and serological test and imaging. Hydatid cyst is a slow growing and may have history of close animal contact. Physical examination shows mass and hydatid thrill. Imaging is done by USG and CT. USG is preferred first line imaging it shows daughter cyst and gives classification according to stage CT gives precise information regarding the morphology, size, location, neighborhood, and number. Treatment is mainly surgical. Drug therapy is not useful but is useful prior intervention with multiple cysts and the surgical treatment options are laparotomy with open aspiration and evacuation injection of scolicalidal agent and management of residual cavity by marsupialization/ capitonage/ omentoplasty¹⁰, partial pericystectomy, Laparoscopic approach using grinder aspiration apparatus. The common scolicalidal agents are hypertonic saline 20%, ethanol 95%, povidine iodine 10%, chlorhexidine 0.5%, hydrogen peroxide 3%, cetrimide 1%.

CONCLUSION

Hydatid cyst can occur in any part of the body and so for any cystic space occupying lesions and unidentified tumor formations in patients from endemic areas hydatid cyst must be ruled out and must be a part of differential diagnosis.

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