Hydatid Cyst in Right Iliac Fossa

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Hydatid cyst commonly occurs in liver, followed by lungs. It may occur in other organs also. But isolated retroperitoneal hydatid cyst occurring in right iliac fossa is rare.

A 25 years old male presented with a slowly growing mass in right iliac fossa for two years. He had dull aching pain in right iliac fossa, early satiety and occasional history of pain during micturation. No history of chest pain, cough, haemoptysis, fever with night sweating altered bowel habit or subacute intestinal obstruction. Sleep was disturbed due to abdominal discomfort. He had no history of contact with pulmonary tuberculosis. He had household contact with dog five years back.

Physical examination revealed mild anemia, but no cyanosis, jaundice, edema, clubbing or lymphadenopathy. Swelling in right iliac fossa was cystic, nontender, with irregular surface. It was moving slightly with respiration. His liver and spleen were not palpable. Other systems revealed no abnormality.

He had mild normocytic and normochromic anemia (Hb 10.5 gm %) and mild eosinophilia (absolute count 750/ micro liter). Chest X-ray was normal. USG showed a large cystic lesion with multiple daughter cysts situated in muscles right iliac fossa : it extended to left, anterior to urinary bladder. It measured 154 × 96 × 141 mm approximately at superoinferior, anteroposterior and mediolateral dimensions. Liver, spleen and other organs were normal. ELISA test for anti echinococcus granulosus antibody was positive. Patient was treated with albendazole 400 mg twice daily for one month with reduction of cyst size, followed by surgical excision of the cyst.

Hydatid cyst is the larval stage of a dog tapeworm, echinococcus granulosus. It has intermediate and definitive hosts. Dog is the definitive host and passes eggs in their feces. Cysts develop in intermediate host e.g., sheep, cattle, goats, camels, horses and humans. Dog ingests beef or lamb and completes the life cycle of the cestode. When human ingests the eggs, embryos escaping from eggs penetrate the intestinal mucosa, enter the portal circulation and are carried to various organs. The hydatid cysts of echinococcus granulosus tend to form in liver (commonest) or lungs but may be found in any organ of the body, including brain, heart, bones etc. Primary peritoneal echinococcosis is rare. Peritoneal hydatid cysts are usually the result of surgical, traumatic or spontaneous rupture of liver cysts. Isolated retroperitoneal hydatid cyst is also rarely observed. The hematogenous dissemination of echinococcus granulosus explains the pathogenesis of isolated retroperitoneal involvement. A small number of embryos escape the hepatic filter, enter the systemic circulation, and are scattered to other parts of the body including retroperitoneal structures.

Hydatid cysts are usually asymptomatic as they are slow growing. Hepatic echinococcosis may present with pain in abdomen and right upper quadrant abdominal mass and rarely cause obstructive jaundice or cholangitis. Pulmonary hydatid cyst may present with chest pain, cough and haemoptysis. Other presentations are due to involvement of bones (with fractures), central nervous system, heart and pelvis (pelvic mass). Apart from eosinophilia, routine laboratory investigations are of little help in diagnosis. Serologic tests for hydatidosis like ELISA and immunoblot may be helpful. USG and CT are diagnostic, especially when daughter cysts are visualized. Treatment is either PAIR (percutaneous aspiration, infusion of scolicidal agents, and reaspiration) or surgical removal. Conservative treatment with albendazole 400 mg twice daily should precede and follow the surgical intervention.

Echinococcus granulosus can affect any organ or any part of the body and a high suspicion of this disease is justified in endemic regions. Hydatid cyst should be considered in differential diagnosis of right iliac fossa masses before any surgical procedure to avoid dissemination of the cystic contents or an anaphylactic shock.

References