

A Case Report

Splenic Hydatid, A Rare Presentation of Hydatid Disease

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A case of a young female is reported who presented with the complaint of a dragging sensation in the left hypochondrium and vague upper abdominal pain for the last couple of months. History and clinical examination gave the clinical suspicion of splenic hydatid. Ultrasonography and CT scan of the abdomen revealed a huge multivesicular cyst but they could not localize the exact site of origin and assigned it to arise between the tail of pancreas and spleen. The involvement of spleen was ascertained on exploratory laparotomy; Splenectomy was performed with an uneventful recovery. Preoperative and Post-operatively tab. Mebendazole was used to reduce recurrence. In conclusion, although rare but a high degree of suspicion should be there when splenic cyst is encountered.

Keywords: Hydatid disease, Splenic hydatid, Ultrasonography, CT scan.

Introduction

Hydatid disease is endemic in this part of the world. Larvae of *Echinococcus Granulosus* cause hydatid disease in humans. It has a cosmopolitan distribution, being particularly prevalent in sheep and cattle raising areas of the world.¹

Humans, being an incidental host, contract the disease by ingesting highly infective eggs of adult echinococcus harbouring in the small intestine of the definitive hosts like dogs and canine animals. Human's ingestion of such contaminated food leads to hatching of ova in the gastrointestinal tract. The enclosed embryos are liberated in the duodenum and transported to the liver via portal circulation. The liver acts as the first filter in trapping the embryos which then develop into hydatid cysts in 55 – 70% cases, followed by the lungs being 2nd filter in 18-35% cases. Some escape from these to involve the brain, kidneys, bones and other soft tissues.¹ Hydatid cysts involving the spleen are rare (2.5%).

Splenic hydatid, being a rare entity, can occur primarily or in association with Hepatic, Pulmonary or multi-organ hydatidosis.²

Open splenectomy is the standard procedure for benign splenic disorders. Partial splenectomy was introduced for trauma and later for most benign splenic diseases, including non parasitic cysts and parasitic hydatid cysts when fatal postsplenectomy sepsis was widely recognized.³

Preoperative diagnosis sometimes become challenging, Operator dependant radiological techniques are usually unable to add to the diagnostic accuracy. In such cases, exploration and peroperative decisions are worth practicing.

Case Report

24 years old unmarried girl presented with 2 months history of pain and heaviness in the left hypochondrium. The pain was localized, gradual in onset, moderate in intensity, dull



Fig. 1:



Fig. 1: Ultrasonographic Pictures of Splenic Hydatid.

aching in character, associated with a feeling of heaviness and mass in upper abdomen. The rest of the systemic review was normal. Past history revealed a surgery for leiomyoma of the uterus.

Physical examination revealed a blood pressure of 140/90 mmHg, pulse 80 beats/min. and a temp. of 98.6 F. On abdominal examination, there was a tender, irregular soft mass moving with respiration and occupying whole of the left hypochondrium and lumbar region reaching upto Rt. iliac fossa, 10-12 cm from Lt. costal margin. A clinical diagnosis of cystic lesion of spleen was made.

On investigations, TLC: was raised to 10300; ESR: 14; Eocinophil count was high (4%). Indirect haemagglutination test for echinococcus was negative. Ultrasonography examination showed a multivesicular cyst but was unable to locate the site of origin and gave the suspicion of the hydatid cyst of the tail of pancreas. It was 2x13x16.5 cm well defined lesion with internal septation in the left hypochondrium displacing the left kidney inferiorly and spleen antero-posteriorly.

Exploratory laparotomy done through left sub costal incision revealed a huge cyst occupying the spleen and compressing the left kidney inferiorly. Splenectomy was performed without damaging the cyst wall. Rest of the abdominal viscera were normal and abdomen was closed without any drain. Tab. Mebendazole 200 mg/kg/day was continued, which she had already been taking preoperatively, for one month. Pneumococcal prophylaxis in the form of inj. Pneumovac was given. The patient was discharged on 8th post-operative day in a satisfactory condition.

Discussion

Splenic cysts are usually parasitic in origin and are mostly echinococcal, while non-parasitic cysts being categorized as dermoid, epidermoid and pseudocysts.⁴

Echinococcus granulosus causes cystic echinococcosis, Echinococcus multilocularis produces multilocular hydatid (alveolar echinococcosis) and other species like Echinococcus vogeli and oligarthus result in polycystic form.

Infection is usually acquired in childhood but they mostly remain asymptomatic. The cyst grows at a rate of 0.3-1 cm per year and it may take 5-20 years to grow into a sufficient size (3 – 35 cms) to cause symptoms of a constant abdominal pain and a visible/palpable swelling in the abdomen as presenting complaints.⁵ Patients can even present with complications like rupture of cysts into the peritoneal cavity, gall bladder, biliary tree, pleural cavity or hepatic veins. Trivial abdominal trauma can cause the rupture of huge body cysts and the patient can present with profound signs and symptoms which are not in keeping with injury. Moderate eocinophilia of 6% or more is usually present. Different serologic tests like hydatid immunophoresis, enzyme linked immunoassay (ELISA), Latex and indirect haemagglutination (IHA) test are helpful for the diagnosis, screening and post-op follow-up for recurrence.⁶

Preoperative diagnosis of this infection is mandatory in order to prevent any rupture of cyst so as to avoid anaphylactic shock or local recurrence. Since the condition closely resembles a soft tissue tumor on clinical examination, pre-operative radiological diagnosis is very important to avoid a biopsy.⁷ Plain films are usually incapable of showing cysts within a soft tissue. Preoperative diagnosis of hydatid cysts can be made on ultrasound and confirmed by CT scan (94-96% and 100% sensitivity respectively). Echocardiography and MRI are essential in cardiac and intracranial hydatidosis respectively.²

Treatment strategies include PAIR (puncture, aspiration, injection, re-aspiration) which was developed at the beginning of 1980s has proved to be successful in a variety of selected indications that have been reviewed by WHO recommendations.⁸

In the present case ultrasound scan done by a consultant radiologist showed a large vesicular cyst containing multiple daughter cysts (multivesicular) but it was unable to localize the exact site of origin. C.T Scan, although, added to the diagnostic accuracy by showing size, shape and extent of the lesion but that too could not identify the exact origin of cyst. Surgery remains the standard treatment, however, per and post-operative 1 month course of tab. Mebendazole and two weeks of Preziqual should be considered in order to sterilize the cyst and reduce the chances of anaphylaxis and tension in the cyst wall. This reduces the risk of spillage during surgery and reduces the recurrence rate postoperatively. Medical treatment with albendazole is indicated in inoperable cases, in patients who refuse surgery and as an adjuvant therapy pre-operatively and post operatively to avoid recurrence.⁹

Conclusion

Hydatid cyst of spleen is rare but a high degree of suspicion should be there whenever a splenic cyst is encountered in clinical practice.

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