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Original Research Paper

Single approach management of Hepato-thoracic hydatid disease: Case report

General Surgery

KEYWORDS:

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ABSTRACT

Echinococcal disease can develop anywhere in the human body, liver being its most frequent location. Hepatic hydatid cysts may rupture into the biliary tract, thorax, peritoneum, viscera, digestive tract or skin. Hence the diagnosis of liver hydatidosis should be fast to avoid relevant complications that may arise. We report a case of 50 year old man who had hepatic hydatid cyst with extension into the right thorax displacing lung and cardia. The chest radiograph and CT features were suggestive of calcified thoraco-abdominal region extending from the lateral segment of left lobe of the liver. Although hydatid cysts can be treated by surgery, chemotherapy and/or percutaneous aspiration, surgery remains the traditional and established treatment. Aim of conservative surgical technique is to achieve complete removal of cyst and early mobilization. In our case, both the hepatic and thoracic hydatid cyst was managed through abdominal approach (laparoscopy) in the same sitting. Enucleation of the pulmonary cyst and pericystectomy of hepatic cyst was done. Interesting radiological appearance and single approach management of cyst is the reason for this case report.

Introduction

Echinococcal disease can develop anywhere in the human body, liver being its most frequent location. Hepatic hydatid cysts may rupture into the biliary tract, thorax, peritoneum, viscera, digestive tract or skin. Hence the diagnosis of liver hydatidosis should be fast to avoid relevant complications that may arise. We report a case of 50 year old man who had hepatic hydatid cyst with extension into the right thorax displacing lung and cardia. The chest radiograph and CT features were suggestive of calcified cyst in thoraco-abdominal region extending from the lateral segment of left lobe of the liver.

Case history

50 year old male patient presented with complains of breathlessness, and right upper quadrant pain for duration of one month.On examination patient was afebrile and vitals were stable.

Per abdomen was soft andnon-tender and breath sounds were reduced in right lower lung fields.

On evaluation, blood reports were within normal limits except for raised eosinophils.

Chest X-ray

-s/o consolidation of right lower lobe(Fig 1)

Fig. 1

CT – Abdomen

- A large 13x11x22cm sized cystic mass lesion located at lateral segment of left lobe of liver with wall calcifications and areas of wall enhancement(Fig 2)

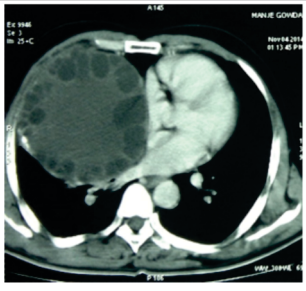

Fig. 2

CT – Abdomen

- The lesion extends superiorly to subdiaphragmatic region causing elevation and splaying of anterior crus of diaphragm(Fig 3)

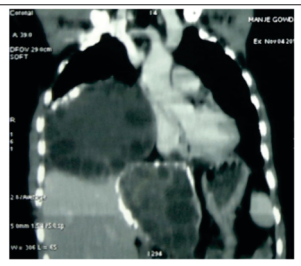

Fig. 3

Operative Findings

- Laparoscopic four ports were inserted

-Huge hydatid cyst arising from whole of the left lobe of liver seen

-Palanivelu trocar was inserted into the cyst cavity under vision

-Cavity was aspirated, cetrimide was injected and reaspirated

-Deroofing of the hepatic cyst was done

-A rent of size 2 x2 cm in the diaphragm was seen communicating into the thoracic cavity

-Thoracic cyst was approached through the rent in the diaphragm

-Cavity was aspirated and contents evacuated

-Drain was placed into the cavity to monitor any bile leak

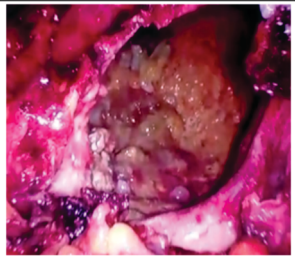

Fig. 4

(Fig 5,6)

Fig. 5

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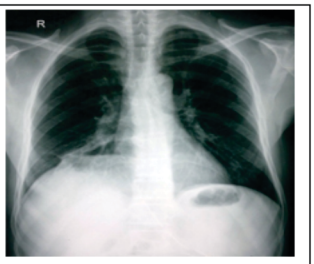
-Post-operative day 2 Chest X ray PA (Fig 6)	 Fig. 6

Gomez Classification	
Grade 1	Adherent Cyst
Grade 2	Hydatidic Transit
Grade 3	Pleuro – thoracic vesiculation
Grade 4	Disease of pulmonary parenchyma
Grade 5	Chronic Bronchial Fistula

Discussion

Primary hydatid cysts occur in the liver in 60-75% of cases[1]. Transdiaphragmaticpleuro-pulmonary rupture occurs in 0.6-1.6% of hepatic hydatid cysts[2]. Depending on the extent of transdiaphragmatic involvement, a classification has been proposed by Gomez et al[3]. Ultrasound may reveal the tear which appears as a localised blurring of the diaphragm contours[4]. The CT-scan may show a tear like connection between the abdominal and thoracic cavities, particularly on sagittal or coronal reconstruction[5]. Surgery remains the first choice for treatment of most cases and is combined with the benzimidazole compounds. In case of pulmonary hydatid cysts, the treatment should consist of excision of the cyst with maximum preservation of the pulmonary parenchyma. However, radical surgery may be required in transdiaphragmatic extension of hepatic hydatid cysts. Most of the literature studies showed surgery done through transthoracic or transabdominal approach with separate incision. In our case, both the cysts were managed through laparoscopic approach. Albendazole (10-15 mg/kg/day in two divided doses) was given for two weeks before surgery softens the cysts and kill the active scolices, so it becomes technically easier. The drug was continued for three month post-operatively. The patient is on regular follow up. Follow up chest X – ray and USG abdomen after 3 months did not show any recurrence of the cyst.

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