Annals of R.S.C.B., ISSN:1583-6258, Vol. 25, Issue 4, 2021, Pages. 14482 - 14485
Received 05 March 2021; Accepted 01 April 2021.

Hydatid Cyst Disease - An Experience in a Tertiary Care Hospital

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ABSTRACT

Purpose: To study the modes of presentation, evaluation and treatment modalities of hydatid disease in our institute.

Materials and Methods: A retrospective review of 14 children was undertaken. Clinical presentations of all children were noted. All patients were evaluated, with Ultrasonography(USG) of whole abdomen and Computerised Tomography(CT) scan of abdomen and chest as main tools. 12 children underwent open laparatomy and 2 children underwent laparoscopy for abdominal hydatid. 3 out of 14 underwent open thoracotomy for lung hydatid.

Results: 1 patient presented with bladder outlet obstruction. 1 presented with obstructive jaundice. 1 had cystic-biliary communication.There was recurrence in 1 patient, which was lung hydatid. No other intra operative or post operativecomplications was found.

Conclusion: Children presenting with upper abdominal pain, respiratory problem should be evaluated properly. Presentations e.g. Obstructive jaundice or Bladder Outlet Obstruction can be caused by hydatid cyst and should be evaluated accordingly. Laparotomy is good option for excision of endocyst of hydatid. Laparoscopic excision is also a good option in uncomplicated hydatid liver cyst in experienced hands.

INTRODUCTION:

Hydatid disease (Echinococcosis) is a parasitic disease. Affects both humans and other mammals (sheep, dogs, rodents and horses). Humans are accidental intermediate hosts, become infected by handling soil, dirt or animal hair that contains eggs. The disease is more prevalent in rural areas with poor sanitation facilities and poor living conditions. The reported peak incidence of echinococcal infection in children is between 5 and 15 years of age.[1,2]

Pain in right upper quadrant is the most common complaint in symptomatic patients[3]. USG is the best diagnostic tool as it can detect cysts as small as 1 cm in diameter and CT scan of the abdomen has a sensitivity of almost 100% in detecting cysts and helps in accurate localization[4]. CT scan of chest also helps in detecting the lung hydatid cysts.

Hydatid cyst is best managed by operative procedures. A preoperative course of Albendazole is given to sterilize the cysts, thus makes the surgery easier. Post operativeAlbendazole is given to reduce recurrence.[5,6]

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MATERILS AND METHODS

This is a retrospective study. The study period was 3 yrs 7 months, between Oct 2009 to May 2013**.** Data collected included patient demographics, clinical presentation, location of the hydatid cyst, investigations done, operative procedures performed, preoperative or post operative complications related to treatment andrecurrences.

Evaluations included routine blood, urine, Ur/Cr, LFT, coagulation profile, ELISA, USG of whole abdomen, CT scan of abdomen, Chest X ray,CT scan of Thorax. In selected cases Magnetic Resonance Cholangiopancreatography(MRCP),Urologic evaluation (MCU, MR Urogram) done accordingly. Data are expressed as mean (range).

RESULTS

Total number of patients diagnosed of hydatid disease was 14. Male to female ratio was 2:1. Age of presentation range from 3 yr to 11 yr (Median= 5yr).

Out of 14 patients, 7 patients had only liver hydatid, both liver and lung hydatid (3), only lung hydatid (2) (bilateral in 1 case), both liver and pelvic hydatid (1), choledochal cyst containing hydatidcyst(1).

Patients presented with upper abdominal pain (70%), Cough and respiratory difficulty (14%), Bladder outlet obstruction (8%),Obstructive jaundice (8%).

Laparotomy was done in 12 cases and laparoscopy in 2 cases of abdominal hydatid (liver/pelvic hydatid) with excision of the endocyst. Thoracotomy was done in cases for lung hydatid.

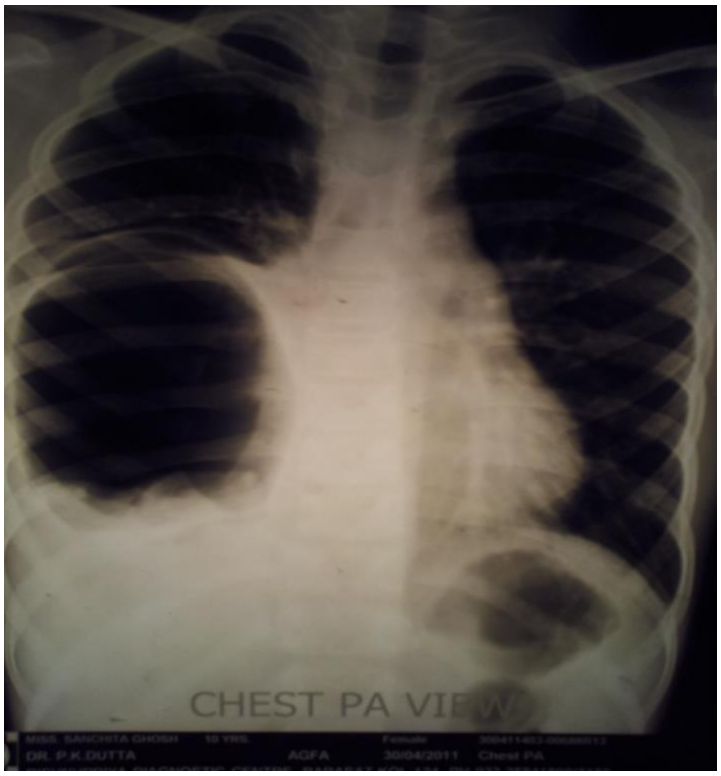

Fig 1: Chest X ray showingCavitary lesion in the Rt side of chest.

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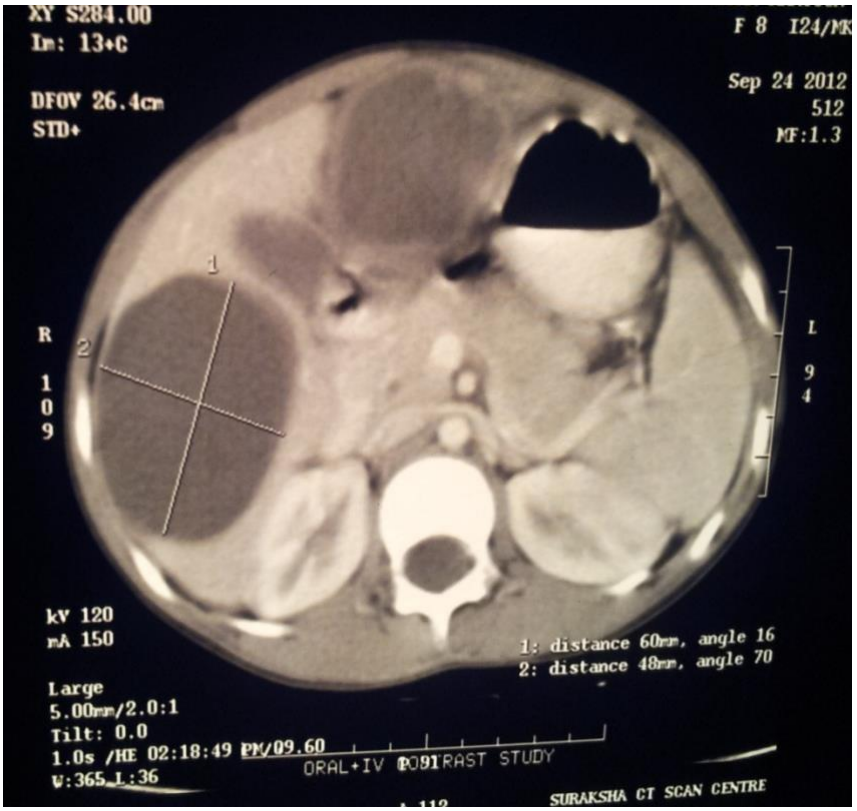

Fig 2: CT scan showing cystic SOL in the liver with septations seen inside the cyst.

DISCUSSION

Albendazole 10 mg/kg/day for 3–6 weeks was given before surgery to sterilise the cyst. During surgery special care was taken not to spill the hydatid fluid. Precautions include – packing the area with povidone iodine soaked mops, aspiration of some of the hydatid fluid, instillation of a scolicidal agent like 3% NS.

LIVER HYDATID was managed with excision of the endocyst containing the daughter cysts.[7,8]

The residual pericystic cavity was partially excised, filled with 3% NS, and closed or obliterated with multiple purse string sutures/Abgel/omentoplasty.[9,10]

Post operation the patient was given albendazole for at least 6–8 weeks to clear up any spilled hydatid fluid containing live scolices. [11]

LUNG HYDATID was managed with excision of endocyst, closure of broncho-pleural fistula (2 cases) and chest drain placement.

For both LIVER & LUNG HYDATID- 1st operation was undertaken as thoracotomy ,excision of endocyst with suture ligation of bronchopleural fistulae and insertion of intercostal chest drain. Followed by 2nd operation, after 6 weeks of Albendazole, where excision of liver hydatid was done.

For both LIVER & PELVIC HYDATID, excision of the pelvic hydatid cyst & liver hydatid cyst in one setting. (1 case)

HYDATID cyst within a CHOLEDOCHAL CYST was managed with exploratory laparotomy, excision of the hydatid cyst, excision of choledochal cyst, hepatico-duodenostomy. The hydatid cyst was found intra operatively after incision of the choledochal

cyst and subsequently proved by biopsy.
In the follow up period we found recurrence in 1 case which was lung hydatid.

CONCLUSION

Hydatid disease of the liver is still endemic in this part of the country. USG and CT scan, the most important diagnostic tools, which helps in determining the complications and planning treatment. Primary pelvic hydatid disease originates in the connective tissue immediately beneath the peritoneum of the pouch of Douglas. It spreads to the uterus,
ovaries, Fallopian tubes, bladder, and rectum after contact.

So, children presenting with upper abdominal pain, respiratory problem should be evaluated properly. Presentations e.g. obstructive jaundice or bladder outlet obstruction can be caused by hydatid cyst and should be evaluated accordingly.

Laparotomy is good option for excision of endocyst of hydatid. Laparoscopic excision is also a good option in uncomplicated hydatid liver cyst in experienced hands.

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