Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 9, Issue, 06, pp.52166-52168, June, 2017

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

ISSN: 0975-833X

CASE STUDY

DIFFUSE ABDOMINOPELVIC HYDATIDOSIS IN CHILD AGE GROUP-A RARE PRESENTATION

[1]Ramgopal Meena, *[,2]Radhey Sankhala, [3]Mahendra Kumar Arya, [1]Komal Singh Meena and [1]Mukesh Kumar

[1]Associate Professor, Department of Surgery, Govt. Medical College and Associated Group of Hospitals, Kota 324001
[2]Resident, Department of Radio Diagnosis, Govt. Medical College and Associated Group of Hospitals, Kota 324001
[3]Associate Professor, Department of Radio Diagnosis, Pacific Institute of Medical Science, Umarda, Udaipur, 313001
[4]Resident, Department of Surgery, Govt. Medical College and Associated Group of Hospitals, Kota 324001

ARTICLE INFO

Article History:
Received 23rd March, 2017
Received in revised form
12th April, 2017
Accepted 29th May, 2017
Published online 20th June, 2017

Key words:
Hydatid, Peritoneal,Surgery.

ABSTRACT

Hydatid disease is a common parasitic infestation that is endemic in many parts of the world. Hydatid primary affects the liver but secondary involvement due to haematogenous spread occurs any part of body. However primary peritoneal Hydatid is very rare, either resulting from spontaneous spread of cysts or occurring after operations involving hydatid in other regions.

Citation: Ramgopal Meena, Radhey Sankhala, Mahendra Kumar Arya, Komal Singh Meena and Mukesh Kumar, 2017. "Diffuse abdominopelvic hydatidosis in child age group-a rare presentation", *International Journal of Current Research*, 9, (06), 52166-52168.

INTRODUCTION

Hydatid cyst is a parasitic infestation caused by Echinococcusgranulosus. Human cystic echinococcosis is still endemic in some areas of the Rajasthan. Although it most frequently localized to the liver (60% - 70%) and lung (20%), it can be developed in any organ system in the body. The overall prevalence of peritoneal involvement in cases of abdominal Hydatid is approximately 13%. Most of them are related to previous surgery for hepatic and splenic hydatid, although spontaneous, asymptomatic micro ruptures of hepatic cysts into the peritoneal cavity are not uncommon (Karavia s*et al*., 1996). A hydatid cyst have three layer, outer cyst or pericyst represents the response of the host to the parasite, middle laminated membrane is acellular, it permits the passage of nutrients but is impervious to bacteria. The inner germinal (or germinative) layer is thin and translucent. The cyst fluid is crystal clear. It is a transudate of serum, contains proteins, and is antigenic. If it is released into the circulation of the host, it can cause anaphylaxis, although cyst rupture may be clinically silent (Pumarola *et al*., 1990)

******Corresponding author:* **Radhey Sankhala,**
Resident Doctor, Department of Radio Diagnosis, Govt. Medical College and Associated Group of Hospitals, Kota 324001

Case presentation

A 10 year old boy presented in surgical outdoor patient department (OPD), Medical college hospital, Kota. With the chief complaint of abdominal distension with abdominal pain since 30 days and recently develop fever & vomiting since 5 days and also complain of blood in stools since 2 days. He also had complaints of haemoptysis and chest pain for last 3 months. There was no history of any previous operative procedure or any abdominal trauma. On physical examination revealed multiple palpable, painless and mobile abdominal masses that were confined to left hypochondriac, umbilical, right iliac and pelvic region. On laboratory investigations revealed, Hb-8.9gm, TLC-18000, Eosinophil count-12 and chest x ray showed consolidation in lower zone of left lung. On abdominopelvic CT revealed multiple peripheral enhancing cystic lesion with internal floating membrane in gastro hepatic and gastro splenic ligaments and numerous cyst in pelvis-peritoneum cavity, measuring up to 10-15 centimeters. Thus diagnosis of Hydatid disease was established based up on ultrasound and computed tomography (CT) imaging findings. Then we started the patient on Albendazole 10 mg/kg/day for 21 days. Physician reference was taken for chest pain and haemoptysis and managed accordingly. Our fundamental

concerns on exploration were to avoid spreading the disease and to preserve the spleen & liver along with the complete removal of all the cysts .On exploration, there were multiple hydatid cysts present in abdominal cavity with a large sized cyst around 15 centimeters size at gastro splenic ligament and another cyst around 4-6 centimeters in gastro hepatic ligament, though spleen and liver were absolutely normal. The cysts were aspirated by using suction. Savlon solution was instilled and was left there for 10-15 minutes so as to gain bactericidal effect before suctioning in the end. There were multiple daughter cysts in the pelvic and abdominal cavity and all were removed. Another 2 cysts of sizes 5 to 7 centimeters were present in the pelvic cavity which were adherent to urinary bladder and rectum.

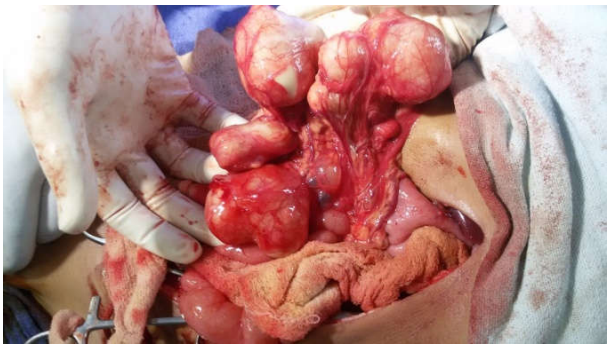

Figure 1. Intraoperative photograph after incision of peritoneum cavity showing multiple whitish hydatid cyst in greater omentum

Figure 2. Intraoperative photograph after incision of peritoneum cavity showing two whitish hydatid cyst attach to gastro splenic ligament and omentum

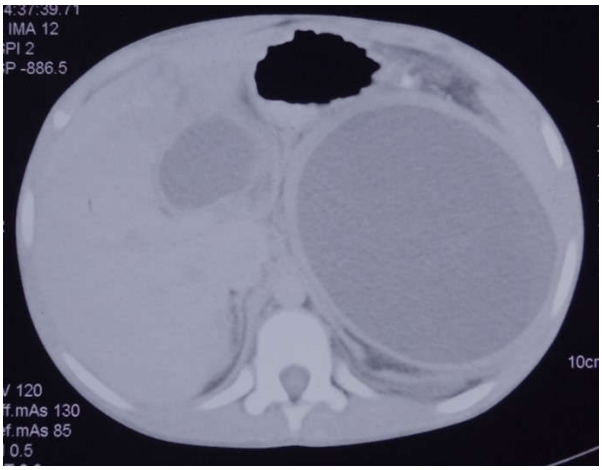

Figure 3. Non Contrast CT axial images of abdomen showing multiple fluid attenuating cystic lesion in gastro hepatic ligament and another large cyst at gastrosplenic ligaments, however splenic tissue seen normal

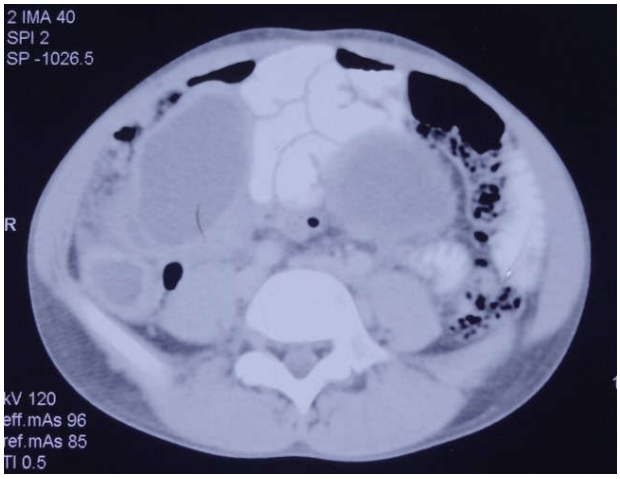

Figure 4. Contrast CT axial images of abdomen showing multiple fluid attenuating cystic lesion with peripheral contrast enhancement in abdominal cavity

Figure 5. Contrast CT axial images of abdomen showing two fluid attenuating cystic lesion with peripheral contrast enhancement in pelvic cavity posterior to urinary bladder

Only partial excision could be done here and cysts were drained. There was no spillage as the cyst content was very thick gelatin material. Greater omentum was completely removed as multiple cysts were present in it. An abdominal drain was put. Postoperative course was uneventful and patient was discharged on 7th postoperative day in stable condition with again started on chemotherapy for 3 months postoperatively. On postoperative follow up after 3 month patients completely fit and on imaging findings no abdominopelvic hydatid was noted.

DISCUSSION

A hydatid cyst should be included in the differential diagnosis of any cystic lesion in abdominopelvic region. This is particularly specially for endemic regions. Human beings are accidental hosts and acquire infection by infesting ova from fomites, contaminated water or direct contact with dogs. In humans, hydatid disease involves the liver in approximately 75% of cases, the lung in 15%, and other anatomic locations in 10% (Pumarola*et al*., 1990). The right lobe is the most frequently involved part of the liver. Ultrasonography of the abdomen still remains the good non-invasive screening tool to find the primary site of the disease and may confirm the diagnosis of hydatid disease by demonstrating the pathognomonic daughter cysts in spleen. Peritoneum Hydatid cyst generally develops by means of systemic dissemination or

intraperitoneal spread from a ruptured liver cyst. Peritoneal Hydatid are usually solitary, and their imaging characteristics are same to those of hepatic hydatid. Any type of hydatid cyst can be seen in the peritoneal cavity. Calcification is usually curvilinear or ring-like and involves the pericyst (Urrutia *et al*., 1996).The different type of serological tests like indirect haemagglutination test (IHA), latex agglutination and enzyme-linked immunosorbent assay (ELISA) are used to establish the diagnosis and postoperative follow-up of the disease with a specificity of 97 %, with IgG-ELISA being the most sensitive with a sensitivity of 83.5%. Similarly, eosinophilia is detected only in 50% of the patients; however, the best way to establish the diagnosis is the direct visualization of parasitic elements in the surgically resected pathological specimen (Zarzosa*et al*., 1999) Sterilisation of hydatid cysts contents by preoperative administration of antihelminthics has been advocated and that causing decrease the incidence of recurrence.(Morris, 1987; Davidson*et al*., 1988) Preoperative albendazole (10 mg/kg body weight) is administered for 3 to 6 months. There is greater agreement regarding postoperative use of antihelminthics in high-risk patients. (Horton, 1989) Small peritoneal cysts that are asymptomatic may be managed conservatively. Surgical intervention is required only for symptomatic and large peritoneal cysts. Surgery in such cases may have to be repeated several times to achieve permanent eradication of the disease. (El Mufti, 1989) Total cystectomy, where possible, is the treatment of choice. When cysts are attached to intraperitoneal viscera, drainage and wide deroofing is safer and is as effective as total cystectomy. (El Mufti, 1989) With disseminated disease, removal of large symptomatic cysts and of smaller ones as much as possible is advocated. Follow up with antihelminthics is recommended.

Conclusion

Hydatid disease can affect any organ in the body, but primary peritoneal involvement is uncommon manifestation of hydatid cyst, we should be highly suspicious of this disease before making any other diagnosis especially in endemic areas of the world. We conclude the ultrasonography and CT is most useful diagnostic tool for confirmation. Surgery is treatment of choice and after treatment, postoperative follow-up are required for recurrence.

Acknowledgments

I must give my sincere thanks to my family for their abundant love, endurance, support, innumerable sacrifices and unceasing encouragement and my sincere thanks to my teachers specially Dr Ramgopal sir and my post-graduate colleagues, seniors and my loving juniors and my friends who had helped me in preparing this article.

Conflicts of interest

The authors declare that they have no competing interests.

Funding

This research did not receive any specific grant from any funding agency in the public, commercial or not for profit sector.

REFERENCES

Lewall DB, McCorkell SJ. Hepatic echinococcal cyst: sonographic appearance and classification. Radiology 1985; 155:773–75.

Morris DL. Preoperative albendazole therapy for hydatid cysts. *Br J Surg.* 1987;74:805-6.

Davidson RN, Bryceson ADM, Cowie AGA, McManus DP, Morris DL. Preoperative albendazole therapy for hydatid cysts. *Br J Surg.* 1988; 75:398.

El Mufti M. In Surgical management of hydatid disease, El Mufti M, editor, London, Butterworth, 1989; 27-30.

El Mufti M. In Surgical management of hydatid disease, El Mufti M, editor, London, Butterworth, 1989; 31-54.

Horton RJ. Chemotherapy of Echinococcus infection in man with albendazole. *Trans R Soc Trop Med Hyg.* 1989;83:97-102.

Pumarola A, Rodriguez-Torres A, García-Rodriguez JA, *et al*..Microbiología y parasitologíamédica. 2nd ed. Barcelona, Spain: Salvat, 1990.

Karavias DD, Vagianos CE, Kakkos SK, *et al*. Peritoneal echinococcosis. World J Surg 1996; 20:337–40.

Urrutia M, Mergo PJ, Ross LH, *et al*. Cystic masses of the Spleen: radiologic-pathologic correlation. Radiographics 1996; 16:107-29.

Zarzosa MP, Orduña Domingo A, Gutiérrez P, *et al*. 1999. Evaluation of six serological tests in diagnosis and postoperative control of pulmonary hydatid disease patients. DiagnMicrobiol infect dis.

****