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ABDONIMAL HYDATID DISEASE IN A PAEDIATRIC PATIENT-A CASE REPORT

General Surgery

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ABSTRACT

Multiple intra peritoneal hydatid cyst in pediatric patients are rare.Here, we present the case of a 9 year old boy who presented with pain abdomen, Diagnosed to have multiple hydatid cysts in Liver, Spleen, right, and left paracolic gutter, pelvis. After a three month course of Albendazole Exploratory laparotomy and cyst excision was done. From this experience, we conclude that individualized treatment is necessary for patients.

KEYWORDS

INTRODUCTION

Human echinococcosis is a zoonotic infection caused by larval forms (metacestodes) of tapeworms of the genus Echinococcus found in small intestines of carnivores. Although there are different species of echinococcosis described, only five of them- E.granulosus, E.multilocularis, E.oligarthrus, E.vogeli, and E.Shiquicus-are formally recognized currently as taxonomically relevant.

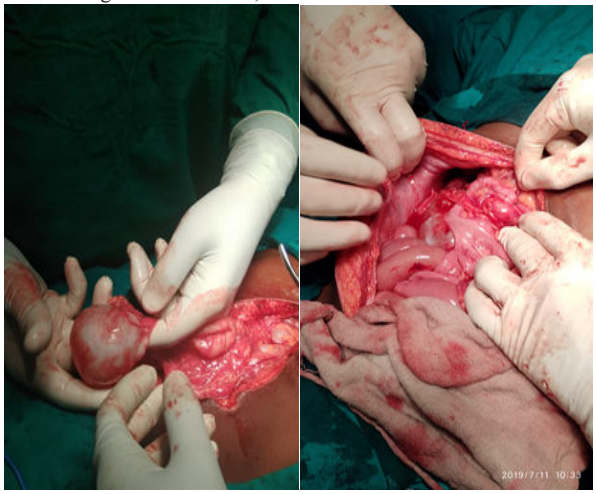
To distinguish the disease caused by these different species, the WHO proposed the designation cystic echinococcosis(CE) for the disease caused by E.granuloses. Alveolar echinococosis (AE) for the disease caused by E.multilocularis, alveolar echinococcosis(AE) for the disease caused by E.multilocularis, and polycystic echinococcosis (PE) for the disease caused by either E.vogeli or E.oligarthus. No human case caused by E.Shiquicus has ever been observed, and only CE and AE are of public health significance. CE is the more prevalent form.

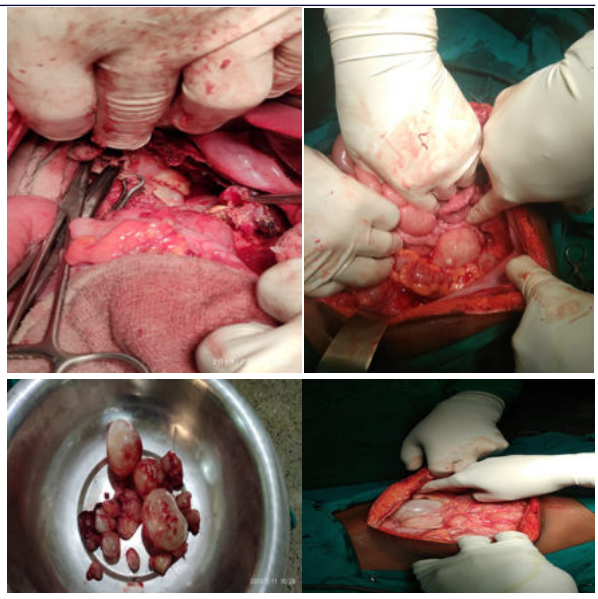
The most frequently involved organ is the liver (55-70%) followed by the lungs (18-35%) and around one-fourth of all cases show multiple affected organs. Surgery involving the removal of all cysts remains the main method of managing hydatid cyst. Although the lesions generally appear grossly benign, establishing a definitive treatment plan is difficult because of the vast difference in clinical manifestations among patients. Here we report a case of abdominal hydatid disease that was successfully managed in our hospital.

Case Report

A 9 year old boy came to our surgical opd with complaints of pain abdomen on April 09, 2019, He had no history of past illness and denied any contact history with pets or livestock.

No icterus, on per abdominal examination two masses palpable over right lumbar region and left iliac fossa, multiple intra-abdominal hydatid cysts identified by ultrasound abdomen and pelvis, the patient had no allergic manifestations, such as urticarial rash and rhinitis.

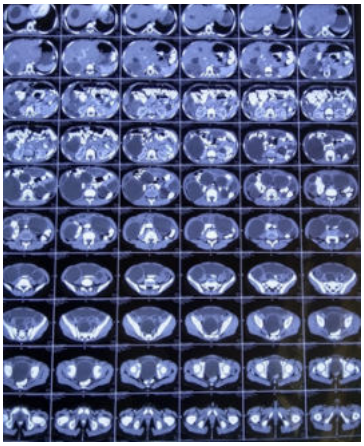


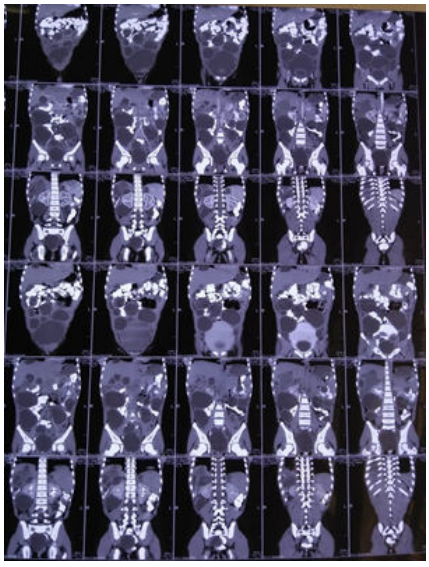


Laboratory examination on admission showed a white blood cell count of 14250c/mm^3 Eosinophil's normal 3%, and normal values for hemoglobin, electrolytes, and biochemical parameters, including liver enzymes and bilirubin.

Intraoperative Pictures Showing Multiple Hydatid Cysts

Contrast-enhanced CT scan of abdomen and pelvis showed multiple hydatid cysts noted in the right lobe of liver largest 5.6x4 .5cm with multiple daughter cysts segment VI and calcification. Intraperitoneal cysts of varying size noted in the right paracolic gutter (9.8x5.7), left paracolic gutter (4x4.5) in the peritoneum, and the pelvis(7.6x6.1cm) behind the bladder. Splenic hydatid cyst 2x2cm, no signs of rupture, no cysts were noted in the pancreas and kidney.





CECT FILMS SHOWING MULTIPLE INTRAABDOMINAL CYSTIC LESIONS

The patient was started on albendazole 15 mg/kg /day for three months before planning for surgery. CECT abdomen and pelvis repeated after 3 months of albendazole. Findings were similar to previous imaging With the patient under general anesthesia, midline incision made from xiphisternum to pubic symphysis, abdomen opened, multiple hydatid cysts noted with varying size 1x1cm to 5x5 cm over the greater omentum, cyst of size 10x10cm in the Right paracolic gutter,8x8cm Left paracolic gutter, right lumbar region cyst size of 8x8cm which was adherent to the right suprarenal gland anterior surface of Right kidney anterior surface of the head of the pancreas, multiple small (3X3cm) bunch of grape-like cysts was present over the subhepatic region lateral to gallbladder which were adherent to Hepatic hydatid cyst , 2x2 cm cyst was present over the posterosuperior aspect of the spleen,12x12cm cyst was present in the pelvis which was adherent to the posterior aspect of the bladder. Total Cystectomy was done for all cyst except for the Hepatic cyst which was opened after aspirating the contents betadine wash was given, inspected for bile leak, cavity packed with omentum, and secured. Drains were placed in the subhepatic and pelvic region. Intra OP blood loss was minimal the peripheral blood eosinophilic leukocyte counts were 5% on post-op day 3 (normal).

Hydatid disease was confirmed by pathological examination of the cyst tissue. The postoperative course was uneventful allowed orally on pod 2 subhepatic drain removed on pod3 pelvic drain removed on pod5, the patient recovered well from surgery.

DISCUSSION

Hydatid cyst is a serious health problem worldwide, and clinical presentation varies according to the anatomic location of the cyst. Although most hydatid infections are acquired in childhood, they can remain latent for 5-20years. Furthermore, hydatid cysts are usually asymptomatic and diagnosed incidentally or when various complications occur. In such cases, patients experience no discomfort before diagnosis. Most hydatid cysts found in adults are hepatic, although some are seen in the lungs. Studies on hydatid disease in children have recorded varying incidences of cysts in the lungs and liver. However, multiple liver cysts are relatively rare in the pediatric population.

The optimal treatment for liver hydatid cysts remains controversial because of the various treatment options available: namely, surgery, percutaneous aspiration injection, and reaspiration(PAIR), medical management, and the watch and wait approach. Nonetheless, surgical excision is the only potentially curative treatment of hydatid cyst especially multiple intraperitoneal hydatid disease. The surgical techniques can be categorized as radical or conservative. Radical methods involve total excision of the cyst, whereas conservative methods involve removal of cysts contents and inactivation of protoscoleces or removal of the parasite only (hydatidectomy) and partial cystectomy. Some surgeons favor sub adventitial cystectomy,pericystectomy, or even hepatectomy if required whereas others, especially those in endemic areas prefer conservative surgery.

Treatment of hydatid cysts is very difficult for many reasons, but mainly because the disease characteristics and clinical manifestations differ widely among patients. For a complex disease like this one, a one size fits all approach is not suitable, and clinicians must adopt a patient-specific approach to treatment. In this case, we selected different forms of excision, performed total cystectomy for all cyst except hepatic cyst where we did hydatidectomy (removal of all parasites and keeping the ectocyst) packing the space with omentum. The treatment option selected should be based on cyst stage size and location, observed complications, clinical experience, and comorbidities.

Eosinophilic granulocytes normally represent a small percentage of leukocytes in the blood, although they are much more abundant in the tissues. These cells can destroy parasites and also have immune regulatory functions. Eosinophilia in peripheral blood smears supports the diagnosis, especially in the case of ruptured cysts in biliary tree show transient elevation up to 60%, increase after surgery.

In conclusion, this case report validates the diversity and complexity of the clinical manifestations of hydatid cysts. We adopt radical surgery whenever possible, although a conservative approach was required in some cases. Although surgical resection is the best curative procedure, hydatid cysts management must be individualized for each patient. The most important factor for successful management is the intact excision of the cyst.

REFERENCES

1. McManus DP, Zhang W, Li J, Bartley PB. Echinococcosis. Lancet. 2003;362:1295–1304. [PubMed] [Google Scholar]
2. Altinors N, Senveli E, Donmez T, Bavbek M, Kars Z, Sanli M. Management of problematic intracranial hydatid cysts. Infection. 1995;23:283–287. [PubMed] [Google Scholar]
3. Dziri C, Haouet K, Fingerhut A, Zaouche A. Management of cystic echinococcosis complications and dissemination: where is the evidence? World J Surg. 2009;33:1266–1273. [PubMed] [Google Scholar]
4. Lv H, Jiang Y, Peng X, Zhang S, Wu X, Yang H, Zhang H. Subadventitial cystectomy in the management of biliary fistula with liver hydatid disease. Acta Trop. 2014 2014 Jun 25. [PubMed] [Google Scholar]
5. Todorov T, Boeva V. Echinococcosis in children and adolescents in Bulgaria: a comparative study. Ann Trop Med Parasitol. 2000;94:135–144. [PubMed] [Google Scholar]
6. Jairajpuri ZS, Jetley S, Hassan MJ, Hussain M. Hydatid disease in childhood: revisited report of an interesting case. J Parasit Dis. 2012;36:265–268. [PMC free article] [PubMed] [Google Scholar]
7. Mamishi S, Sagheb S, Pourakbari B. Hydatid disease in Iranian children. J Microbiol Immunol Infect. 2007;40:428–431. [PubMed] [Google Scholar]