Rare giant hydatid cyst of the liver- A case report

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ABSTRACT

Hydatid disease is a worldwide helminthic anthropozoonosis produced by the larval stage of Echinococcus tapeworm. It can occur almost anywhere in the body, most commonly involving the liver. The disease is endemic in Mediterranean, African, Middle East and Asian regions, while rare in the western world. The aim of this case report is to describe a rare case of grossly asymptomatic giant Hydatid cyst involving nearly whole of the right liver. The patient recovered with surgical and medical intervention.

INTRODUCTION

Hydatid disease is a helminthic anthropozoonosis with worldwide distribution produced by larval stage of Echinococcus/ dog tapeworm. Commonly encountered species are E. granulosus, E.multilocularis, E.vogeli and E.oligarthus. Liver acts as the first filter for hydatid larvae making it the most commonly affected organ followed by lung however, It can occur anywhere in the body with a variety of imaging features. Life cycle of Echinococcus involves two hosts, a definitive carnivore host (generally dog) and an intermediate host (generally sheep). Humans serve as an incidental intermediate host by ingesting viable oncosphere containing eggs shed in the faeces of definitive host.

A definitive diagnosis requires a combination of clinical history, haematological, serological and immunological and imaging studies. Various modalities available for treatment are surgery, chemotherapy and percutaneous aspiration (PAIR). The radical surgical removal of the cystic lesion remains the mainstay of treatment with a high success rate.

Case Report

A 30 year old woman presented to the OPD of general surgery for the complaints of right sided mild, dull aching, continuous, upper abdominal pain for one month. Medical history of the patient was unremarkable. On abdominal examination, a firm, non tender mass was palpable in the right abdomen extending upto right lumbar region and was mobile with respiration. Haematological examination of the patient showed anemia. Except for the mildly raised AST and ALT rest of the haematological parameters were within normal limits. ELISA for the Echinococcus antigen came positive. CT scan showed a huge single cystic mass occupying the right lobe of liver.

Preoperative diagnosis was made on ultrasonogram and confirmed by CT scan. The patient was managed by a course of chemotherapy with Albendazole for 4 weeks and blood transfusion followed by surgery. Nine kidney trays (= 4.5 kilograms) full of Hydatid Cysts were removed from the liver of this patient followed by removal of non viable liver tissue and Omentoplasty along with intra operative lavage by 10% povidone iodine solution used as scolicidal agent.

Recovery of the patient was unremarkable and was discharged on 8th postoperative day with prescription of oral antibiotics and Albendazole for 2 months. Patient didn’t show any fresh complaints on weekly follow up for 2 months.
DISCUSSION

Hydatid cysts show variable clinical manifestations in humans. Most patients seem to tolerate the infection for extended periods without any symptoms. Clinical manifestations depend upon the site, size and stage of development of the cyst. Echinococcal cysts are mostly found in liver (75%) and lung (15%). Other anatomical locations are brain, heart, spleen, bone; abdominal wall etc.

Hydatid cysts are largely asymptomatic until complications occur like rupture, transdiaphragmatic spread, biliary communication, abdominal wall invasion, infection etc. Radiological findings are typical and very helpful in the diagnosis of disease. USG, CT and MRI are highly accurate in detecting hepatic hydatid disease. CT, with its higher rate of accuracy, is the diagnostic tool of choice however, MRI has a particular importance if the diagnosis is equivocal and to define anatomical relationships.

Treatment of hydatid cyst includes operative methods as cyst-pericystectomy, partial hepatectomy, omentoplasty, capottonage etc, paired with scolicidal agents and chemotherapy with benzimidazoles. Treatment outcomes are better when chemotherapy is used as an adjunct to surgery to prevent recurrence.

CONCLUSION

Hydatid cyst can become huge without any significant clinical manifestations. Radical surgery is the treatment of choice in these cases as these carry a life threatening complications. Hepatic hydatidosis continues to be a major clinical problem in endemic region and stress should be made on proper hygiene and prophylaxis of travellers.

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REFERENCES