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Original Research Article

Bilobar Hepatic Hydatid Disease in a Child: An Unusual Occurrence

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Conflict of interest: Nil

Abstract:

Background: Echinococcosis, or hydatid disease, is caused by the larval forms of taeniid cestodes belonging to the genus Echinococcus. Echinococcus granulosus and E. multilocularis are the primary species responsible for human echinococcosis, and mostly they affect the liver. The disease course is typically slow, and the patients tend to remain asymptomatic for many years.

Case presentation: A 8 year old male child with Right upper quadrant pain & swelling since 6 months. USG whole abdomen shows multiple septated cystic lesions (honeycomb) within hepatic segment VI, VII & II), CE2. The CT scan shows Smooth SOL with several septations. Echinococcal IgG raised. Preoperatively 3 cycles of tab Albendazole, 2 wks each given. Partial cystopericystectomy done in both lobes. Post op uneventful, discharged after 3 days.

Conclusions: Hydatid disease in the liver may persist without symptoms and often goes undiagnosed due to the slow growth of the cysts. The diagnosis needs careful history reporting, physical examination, and appropriate imaging investigations.

Keywords: Cystic lesions, cystopericystectomy, echinococcosis, hydatid cyst.

Introduction

Hydatid disease is a zoonotic parasitic disease (Echinococcus granulosus, Echinococcus multilocularis). In adults, liver-most commonly infected. Children-lungs most commonly affected. Hepatic Hydatidosis in children is rare (21.1%) [1].

Case Presentation: An 8 year old male child with Right upper quadrant pain & swelling since 6 months. USG whole abdomen shows multiple septated cystic lesions (honeycomb) within hepatic segment VI, VII & II), CE2. The CT scan shows Smooth SOL with several septations. Echinococcal IgG raised.

Preoperatively 3 cycles of tab Albendazole, 2 wks each given. Partial cystopericystectomy done in both lobes. Post op uneventful, discharged after 3 days.

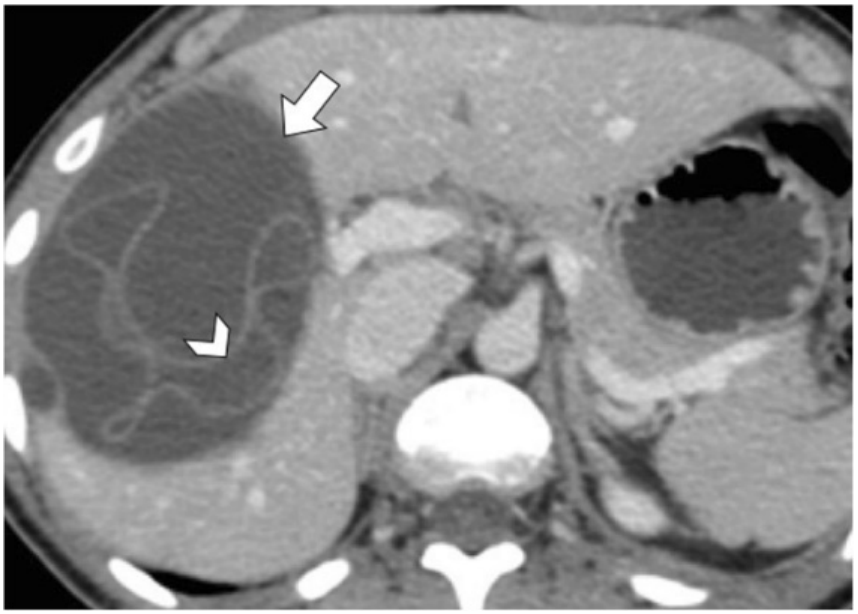

Figure 1: Pre-Operative CT scan showing hydatid cyst of liver

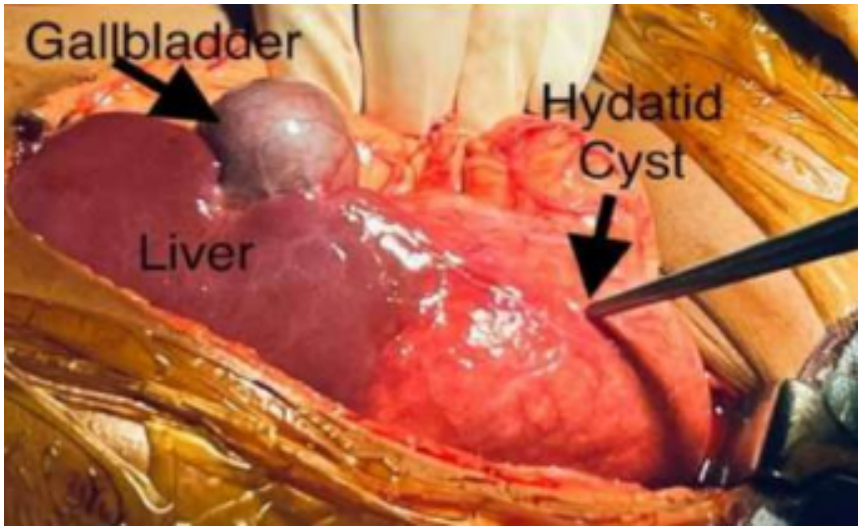

Figure 2: Bilober Hepatic Hydatid Cyst

Figure 3: Injection of scolicidal agent into cyst

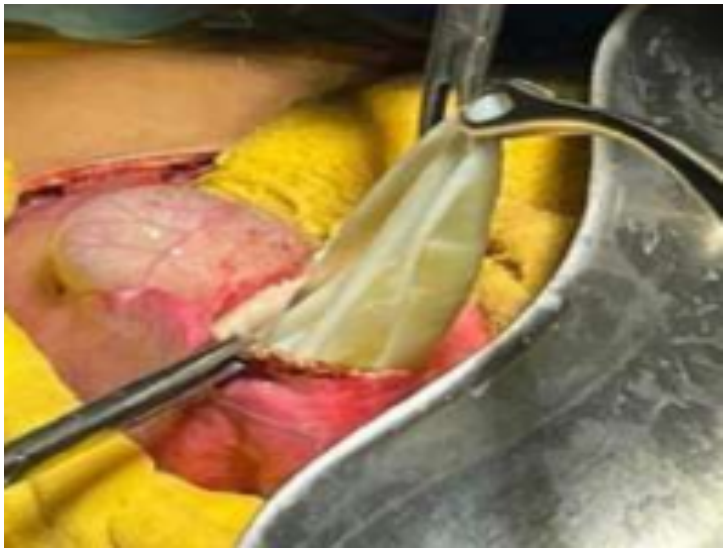

Figure 4: Removal of Daughter cyst

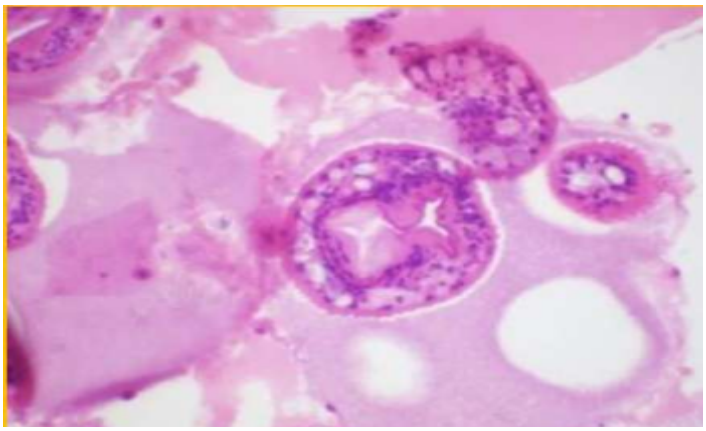

Figure 5: Histopathology of hydatid cyst. Broad capsule containing viable and calcified scoleces (H&E, X: 100)

Discussion

Cystic echinococcosis is a major problem & mostly asymptomatic. Mortality is very low, but it can cause disability. Clinical manifestations depend on the organ involved, size and site interactions with expanding cysts & adjacent organs, complications-rupture [1,2]. In case of adults cysts occur mainly in liver. In Children cysts occur mostly in lungs. Pre-op diagnosis needed to prevent anaphylaxis or local recurrence. USG and CT scan (Figure 1) are the investigations of choice in abdominal hydatidosis [3]. Treatment is multimodal and they are Pharmacological treatment, Puncture aspiration injection respiration (PAIR), Surgery, Wait and watch. Surgery is the treatment of choice for complicated cysts despite PAIR and albendazole. (Figure: 2-4). Histopathology of hydatid cyst shows: Broad capsule containing viable and calcified scoleces. PAS positive laminated and germinal layers. (Figure 5)

Conclusion

Though hydatid disease in children is common in lungs, other sites like liver should be kept in mind. The current management of liver hydatid disease is multi modal, combining albendazole with PAIR and/or surgery. PAIR is an adequate treatment for selected patients and a backup procedure if access to surgery is limited. Surgery under the cover of albendazole is associated with the least recurrence.

Work attributed to: Burdwan Medical College and Hospital, Purba Bardhaman, West Bengal, India.

Human Subjects: Consent was obtained from patient and patient party in this study.

Data Availability: All the data pertaining to the patient is available and will be made available if necessary.

Declarations: I declare that this manuscript has been composed solely by me and that it has not been submitted, in whole or in part, to any journal.

Other Relationships: All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

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