

CASE REPORT

A RARE PRESENTATION OF MULTIPLE HYDATID CYST ON EITHER SIDE OF DIAPHRAGM

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ABSTRACT

Cystic echinococcosis (CE) or more commonly known as hydatid cyst is a zoonotic infection caused by *Echinococcus granulosus*. Although the two most common locations of hydatid cyst are liver and lungs, it may appear in any other part of the body and therefore clinical presentation of the infection largely depends on the site and size of the lesion. In the present study, a 65 years old Afghan ex-smoker male diagnosed with tuberculosis was presented with the symptoms such as cough, hemoptysis, chest pain, shortness of breath on exertion and low-grade fever. The antituberculous treatment was stopped with no benefit and then the patient was treated with albendazole at a dose of 15 mg/kg/day in divided doses for three months. The treatment was stopped at three months time with a 14 days drug-free period following which the treatment was restarted. The treatment continued for three cycles each lasting for three months with a 14 days drug-free period. The patient treated with albendazole was discharged in healthy condition. However, surgical resection of cysts is another safe alternative to avoid the rupture and consequent anaphylaxis.

Keywords: Hydatid cyst, diaphragm, zoonotic infection.

1. INTRODUCTION

Human hydatid disease is a dog borne illness resulting from an infection caused by *Echinococcus granulosus*. The disease can invariably involve any body tissue but usually infects liver, brain, bones, heart and sometimes lungs. The infection usually presents as space occupying lesion. Although the disease is not very common in Pakistan, however, cases are still reported from neighboring countries like Afghanistan, Iran, etc.¹⁻⁴.

In the present study, a case of human hydatid disease which is unique in its presentation has been discussed in which the disease reveals multiple cysts on either side of the diaphragm of the patient.

2. CASE PRESENTATION

A 65 years old Afghan ex-smoker male was presented at the medical outpatient department of Fatima Hospital, Baqai Medical University

with cough, hemoptysis, chest pain, shortness of breath on exertion and low-grade fever. The patient was diagnosed at some peripheral hospital as a case of tuberculosis where he was put on antituberculous treatment which was stopped with no benefit after three months. Later, the patient visited Fatima Hospital. On detailed inquiry, history of abdominal pain of varying intensity for last several years was noted as he looked emaciated and his hemodynamic parameters were also found stable. Chest examination shows tenderness over the right lower lateral chest and there was tenderness in the right upper abdominal quadrant. Remaining general, as well as systemic examination was unremarkable and his complete blood count appeared normal. Patient's serum was investigated to determine key biochemical parameters of hepatocellular damage, which included total serum bilirubin (3.5 mg/dl), activity levels of alanine aminotransferase (ALT, 32 IU/L), aspartate aminotransferase (AST, 38 IU/L) and alkaline phosphatase (ALKP, 120 IU/L). The

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serum sample for *Echinococcus* culture by ELISA was found positive and therefore based on the clinical findings, biochemical parameters and positive serological results, a provisional diagnosis of hydatid cyst was made. For radiologic confirmation, chest X-ray and abdominal ultrasound were also performed. Contrast tomography (CT) of chest and abdomen showed several well-demarcated cysts with peripheral contrast enhancement in the right hemithorax and liver and a few of these also showed internal septations (Fig. 1). The largest identified cyst was found extended from right posterior pleural space into the posterior mediastinum. The cyst was shifting the esophagus towards the left side and the heart anteriorly. Multiple hydatid cysts were noted within the right pleural space resulting in atelectatic changes within the underlying right lung. Several

hydatid cysts were recognized such as the largest within segment VII of the liver and an additional cyst seen within the left lobe of the liver.

Albendazole is active against *Echinococcus*, other choices include PAIR therapy i.e. percutaneous drainage along with scolicidal agent but safer alternative is the surgical resection of cysts to avoid the rupture and consequent anaphylaxis⁵⁻⁹. The medical treatment with albendazole at a dose of 15 mg/kg/day in divided doses was started and continued for three months. The treatment was stopped at three months and the patient was given a 14 days drug-free period following which the treatment was restarted. This treatment continued for three cycles each lasting for three months with a 14 days drug-free period. The patient was followed every three months with early follow up if required.

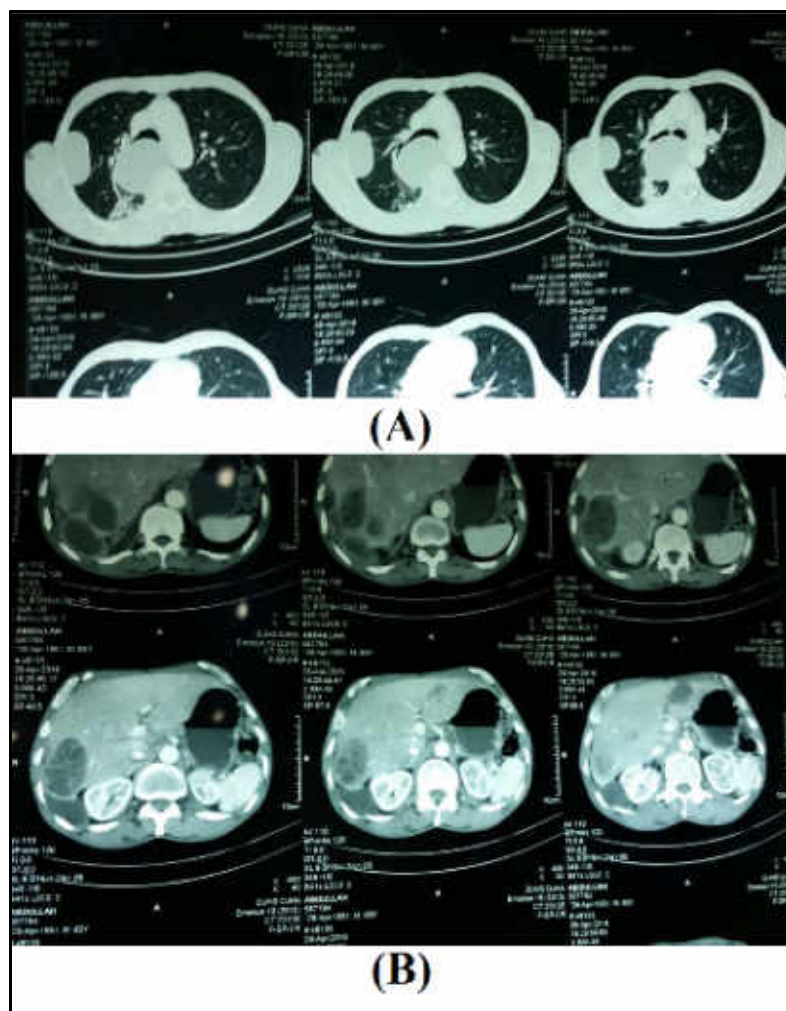


Fig. 1. Axial CT images through the chest (A) and liver (B) demonstrating hydatid cysts lesions.

3. CONCLUSION

Prevalence of hydatid cyst varies in various parts of the world. The disease appears differently in its presentation typically involving the liver but can affect nearly any organ system. Chemotherapy and surgical options both are available for managing hydatid cysts disease but medical treatment is usually preferred where more than one cyst is present.

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