

Role of Computed Tomography for Diagnosis Ruptured Hydatid Cyst

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Abstract: *Pulmonary hydatid cyst considered a cause of respiratory failure and circulatory shock. Chest imaging showed findings suggestive of ruptured hydatid cyst, which was confirmed by histology post-thoracotomy. C T Scan, Tissue cultures from the removed cyst grew Mycobacterium tuberculosis also. Patient was successfully managed in the intensive care unit and was then discharged home in addition to albendazole after prolonged hospitalization and a need for chest tube for bronchopleural fistula. Acute respiratory failure and anaphylactic shock secondary to ruptured pulmonary hydatid cyst.*

Keywords: CT pulmonary cyst;;Rupture Hydatid syst

1. Introduction

Two thousand years ago, Hippocrates described hydatid disease of the liver as “the liver full of water.” Tyson in 1687 suggested the parasitic nature of the disease. The details of its clinical aspect, however, only became clear at the beginning of this century.

Hydatid disease is common in the sheep-rearing areas of the world, mainly Australia, Turkey, Wales, and South America. The prevalence of hydatid disease among humans was determined as 9.1% in a World Health Organization study in the Central Peruvian Andes. The disease is not uncommon in Saudi Arabia, especially in the South Western region of the Peninsula. In humans, most hydatid cysts occur in the liver and 75% of these are single cysts. Other commonly involved organs are the lungs, spleen, and kidneys.

Although percutaneous drainage with or without instillation of scolecidal agents has been increasingly used for the management of hepatic hydatid cysts in recent years, surgical intervention is still the treatment of choice. The aim of surgical treatment is elimination of scolices, previously killed by scolecidal drugs, together with removal of all viable parts of the cyst and obliteration of the residual cavity. This can be achieved by hepatic resection or by drainage and obliteration of the cyst. The latter procedure can be done by open surgery or laparoscopy.

2. Methods

This is an observational study done By CT Scan at King Khalid Hospital, Alqasseem Saudi Arabia 2015. All adult patients admitted with the primary or incidental diagnosis of echinococcosis were included. These patients were followed up for 6 months. CT Scan ,Data relating to patients' demographic characteristics, mode and duration of presentation, investigations, complications and treatment

offered was collected. This data was then analyzed using SPSS.

3. Discussion

This is a rare case of pulmonary hydatid cyst with acute respiratory failure and anaphylactic shock,. The diagnosis was not entertained initially and the patient was treated as complicated community-acquired pneumonia by the referring hospital. The initial chest X-ray showed a right-sided cavity with air fluid level that disappeared on the subsequent X-ray. This rapid change was consistent with a cavity that ruptured and emptied its contents. The diagnosis of ruptured hydatid cyst was entertained and confirmed later by the classic finding on the CT scan. The acute bronchospasm secondary to ruptured cyst, as suggested by the rapid resolution after starting hydrocortisone, bronchodilators and cyst resection. The most likely explanation for the shock is anaphylaxis secondary to the ruptured hydatid cyst.

The diagnosis of pulmonary hydatid cyst should be entertained based on radiographic appearance and epidemiological setting. Ruptured pulmonary hydatid cyst should be considered in patients living in endemic areas with suggestive radiologic findings.

4. Results

100 patients were admitted, male and female ratio being 2:1. originated from Middle East which is an endemic area. Pain right upper quadrant (RUQ), followed by cough were the commonest symptoms. 10 patients presented with cholangitis: 5 patients had intrabiliary rupture of the hydatid cyst, while 9 had extrinsic compression. 3 patients had infected cyst. 12 patients had intrabronchial rupture diagnosed on bronchoscopy. 20 patients presented with recurrent disease. The Haemagglutination Inhibition test

gave a sensitivity of 75.5. All cysts were visualized using USG, CXR and CT scan. Endocystectomy was the most frequent procedure. Post op 9 patients had biliary leakage and 4 had bronchopleural fistula a majority of whom settled conservatively while two required Endoscopic Retrograde Cholangio Pancreatography (ERCP). 14 patients had infection related complications. During our follow up period no recurrences were recorded. All patients undergoing surgery also received medical treatment. 20 patients (were unable to undergo operative treatment due to multiple reasons. They were medically treated.

5. Conclusion

Chest X-ray showed a cavity with air fluid level. CT Scan can be easily diagnose Hydatid cyst as paper thin wall, Clear water content and Sharply define margin. Ruptured pulmonary hydatid cyst should be considered in patients living in endemic areas
acute bronchospasm secondary to ruptured Hydatid cyst

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