

Unusual Presentation of Hydatid Cyst

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Abstract:

Introduction: Hydatidosis, or hydatid cyst(HC), represents an epidemic disease that particularly affects North Africa and South America where areas of traditional breeding predominate. The pathogenesis is due to the accidental infestation of a human by a dog's dejections which contained the *Taenia Echinococcus granulosus*. It affects different organs, but mainly the liver and lungs, whereby the blood filters for parasite dissemination. Mediastinal location of hydatid disease is very rare (Incidence- 0.1-0.5) and poses diagnostic and therapeutic problems. We report a case of mediastinal hydatid cyst localization Case presentation- A 41 year old female, Chinta Devi, resident of Devghar, Jharkhand, India. Attended a first consultation at Surgery OPD after onset of symptoms: Pain abdomen since 6 months, Chest pain with dry cough since 3 months, associated with inspiratory dyspnea. A physical examination on admission was normal. A chest radiograph showed a homogenous opacity on left side of the chest. A CECT showed opacity with well defined contours at the middle and lateral side of mediastinum behind left main bronchus, regular thin wall, showing air crescents. The result of lab test showed total leucocyte count of 14,300/CuMM. Daughter cysts She underwent a Exploratory laprotomy with de-roofing of liver and mediastinal cyst. After needle aspiration of the cyst, several vesicles were removed. Extensive washing of the mediastinal cavity was performed with hydrogen peroxide. The postoperative outcome was adequate. She was discharged with abdominal drain in situ. She was treated with albendazole 400mg one tablet per day for 2 months. Her condition evolved favorably.

Keywords: Hydatid cyst, Mediastinum, Daughter cyst, *Echinococcus granulosus*,

I. INTRODUCTION

Hydatidosis, or hydatid cyst(HC), represents an epidemic disease that particularly affects North Africa and South America where areas of traditional breeding predominate. The pathogenesis is due to the accidental infestation of a human by a dog's dejections which contained the *Taenia Echinococcus granulosus*. It affects different organs, but mainly the liver and lungs, whereby the blood filters for parasite dissemination. Mediastinal location of hydatid disease is very rare (Incidence- 0.1-0.5) and poses diagnostic and therapeutic problems. We report a case of mediastinal hydatid cyst localization

II. CASE PRESENTATION

A 41 year old female, Chinta Devi, resident of Devghar, Jharkhand, India. Attended a first consultation at Surgery OPD after onset of symptoms: Pain abdomen since 6 months, Chest pain with dry cough since 3 months, associated with inspiratory dyspnea. A physical examination on admission was normal. A chest radiograph showed a homogenous opacity on left side of the chest. A CECT showed opacity with well defined contours at the middle and lateral side of mediastinum behind left main bronchus, regular thin wall, showing air crescents. The result of lab test showed total leucocyte count of 14,300/CuMM.



Figure 1

Computed tomography after injection of contrast, showing liquid formation in the left side of mediastinum with regular contours and fine wall discretely enhancing by the contrast.



Figure 2



Chest X-ray showing opacity on left side of the chest.



Figure 3

Daughter cysts

She underwent a Exploratory laprotomy with de-roofing of liver and mediastinal cyst. After needle aspiration of the cyst, several vesicles were removed. Extensive washing of the mediastinal cavity was performed with hydrogen peroxide. The postoperative outcome was adequate. She was discharged with abdominal drain in situ. She was treated with albendazole 400mg one tablet per day for 2 months. Her condition evolved favorably.

III. DISCUSSION

Hydatid disease is a parasitic disease secondary to the development Of the larval form of *E. granulosus*. Humans can be accidentally infesting by ingesting food contaminated with parasite eggs or by direct contact with a sick dog. On entering the intestines of humans, the parasite gains further entry to locate itself in the liver or lung, and its passage into the systemic circulation is responsible for its location in diverse locations. These two organs are a blood filter for the dissemination of the parasite, thus explaining the rarity of hydatid disease in all other locations. Primitive mediastinal localization is one of the rarer.

The pathogenesis of mediastinal localization of HC remains controversial. Some findings argue in favour of the hypothesis of fissuring an hydatid liver or lung into the systemic circulation, allowing parasite to settle in the mediastinum. Hydatid cyst of the mediastinum is often revealed by chest pain and signs of mediastinal compression (dyspnea, dysphagia, dysphonia).

Imaging plays a vital role in the diagnosis and staging of lesions. Chest radiography oriented the diagnosis by showing a mediastinal water tone. In majority of the cases, a chest CT can confirm the diagnosis by objectifying a mass of fluid density, contrast uptake by a pericyst. Surgical treatment of mediastinal hydatid cyst is essential. The surgical procedures includes a posterolateral thoracotomy or median sternotomy. The postoperative course is classically simple with no mortality. The value of medical treatment based on albendazole remains controversial.

IV. CONCLUSION

The mediastinum is an atypical location of hydatid cyst, rare even in endemic countries. Diagnosis is based on radiology, biology (hydatid serology) and histology study. This case report indicates that the etiology of hydatidosis should be kept in mind when a patient presents with signs of mediastinal compression.

Consent of patient:

Permission of the patient for this report was taken.

Competing Interests

The authors declare that they have no competing interests.

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