



BILATERAL MULTIPLE PULMONARY HYDATIDOSIS: A CASE REPORT

Respiratory Medicine

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ABSTRACT

Multiple pulmonary hydatidosis is a rare manifestation of cystic echinococcosis caused by the larval stage of echinococcus granulosus. Our case study highlights a 60 year female, presenting with persistent low-grade fever and cough with minimal sputum production. Initial work up including routine laboratory investigations along with abdominal ultrasound were unremarkable, however CXR and CECT chest revealed many fluid-filled lesions in both lungs along with signs suggestive of ruptured hydatid cysts. Based on clinical and radiological findings the identification of pulmonary hydatid disease was made. The patient was started on albendazole therapy and advised regular follow-up. This case emphasizes the significance of taking in consideration hydatid disease in differential diagnosis for cases presenting as atypical pulmonary symptoms, especially in affected areas. Early detection through imaging and appropriate treatment medical or surgical is essential to reduce morbidity. Preventive measures such as hygiene, controlling canine populations and food safety can significantly curb transmission.

KEYWORDS

Pulmonary hydatidosis, Echinococcus granulosus, hydatid cyst, Albendazole, zoonotic infection, parasite.

INTRODUCTION

CE is a globally distributed zoonotic disease caused by larval stage of the tapeworm *Echinococcus granulosus*. It predominantly affects populations in indigenous areas like South Europe, South America, the Middle East Asia including India where transmission cycle between dogs and livestock remains active¹.

Human beings become incidental intermediate hosts by ingestion of parasite eggs typically via food and water which is contaminated or direct contact with infected animals. While the liver is the most familiar involved organ accounting for 5070 of cases. The pulmonary involvement has been reported in 1030 individuals making pulmonary hydatidosis the second most prevalent form of CE². The lung involvement can occur either through hematogenous dissemination or primary infestation.

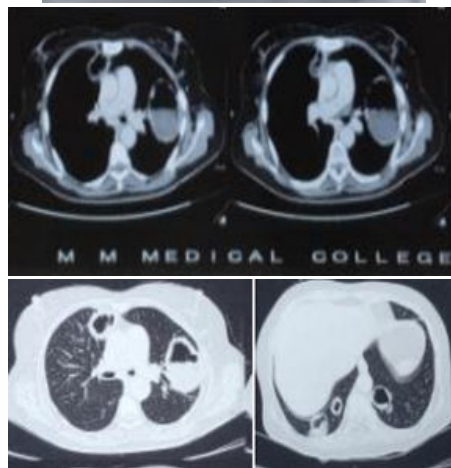
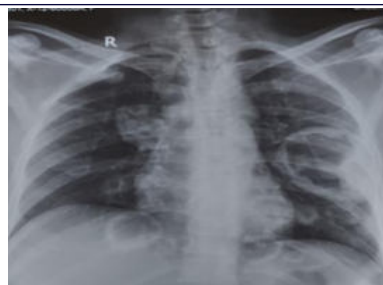
The clinical symptoms varies from asymptomatic cases to symptoms such as cough, chest pain or hemoptysis especially when cysts rupture or become secondarily infected³. Imaging modalities such as chest radiography and computed tomography(CT) play a pivotal role in diagnosis, often revealing well-circumscribed cystic lesions. Medical management with benzimidazoles is reserved for inoperable or disseminated cases while surgical intervention remains the mainstay for complicated or large cysts.

This case report describes an uncommon presentation of multiple bilateral pulmonary hydatid cysts in an elderly female, emphasizing the diagnostic and therapeutic challenges of pulmonary CE in indigenous areas.

Case History

A 60 year female presented with complaints of low grade fever for 1 month and cough with minimal expectoration since 15 days. No complaints of shortness of breath, weight loss,night sweats, loss of appetite. No h/o DM, HTN, CAD, COPD, tuberculosis, contact with TB patient. Patient was a non smoker and non alcoholic. No significant findings on clinical examination elicited. CBC, LFT, RFT,urine routine examination were all within normal range. chest x ray PA view was suggestive of multiple fluid filled cavities in both lungs.

Ultrasound of abdomen was normal. CECT of chest was suggestive of multiple large focal lesions in both lungs with fluid level with one of them showing positive Combo Sign likely ruptured pulmonary hydatid. Based on history and imaging, patient was diagnosed as a probable case of hydatid disease and was started on Albendazole 400mg bd for 3 months and advised for follow-up.



DISCUSSION

Certain occupations pose an increased risk of CE such as slaughterers, tanners, stockbreeders, shepherds, butchers and veterinarians or any job which makes a person to work closely with animals⁴. Human exposure occurs via the fecal-oral route through consumption of food or water contaminated by the feces of an infected definitive host usually dogs. The eggs can also be inhaled causing primary lung disease⁵. Most intact lung cysts are discovered incidentally on chest radiographs. Occasionally an unruptured cyst results in cough, haemoptysis or chest pain⁶. The most valuable diagnostic method in this disease is the plain chest radiograph⁷. The surgical options for lung cysts include lobectomy, wedge resection, pericystectomy and intact endocystectomy. medical therapy with benzimidazoles is valuable in disseminated disease including secondary lung or pleural hydatidosis, poor surgical risk patients and when there is intraoperative spillage of

hydatid fluid.

CONCLUSIONS

Both history and imaging are relevant in cases of pulmonary disease. In cases where surgery is not feasible medical treatment should be given for a minimum period of 3-6 months. Prevention of cystic echinococcosis can often be achieved by avoiding close contact with animals particularly dogs. Careful washing of fresh produce can also reduce infection.

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