**Int. J Med. Pharm. Res.** (P-ISSN: 2958-3675 | E-ISSN: 2958-3683)
**Available on**: https://ijmpr.in/
DOI: **10.5281/zenodo.13917629**

International Journal
**of Medical and**
**Pharmaceutical Research**

**CASE REPORTOPEN ACCESS**

# Incidental Finding of Pulmonary Hydatid Cyst in Patient with Neck of Femur Fracture

**Dr.Sagarika Khatua[1]*, Dr.Rekha Manjhi[2], Dr.Aurobindo Behera[3]**

[1]Post Graduate Trainee, Department of Pulmonary Medicine, Veer SurendraSai Institute of Medical Sciences and Research (VIMSAR), Pgchowk, Burla, Odisha 768017, India
[2]Professor and HOD, Department of Pulmonary Medicine, Veer SurendraSai Institute of Medical Sciences and Research (VIMSAR), Pgchowk, Burla, Odisha 768017, India
[3]Associate Professor, Department of Pulmonary Medicine, Veer SurendraSai Institute of Medical Sciences and Research (VIMSAR), Pgchowk, Burla, Odisha 768017, India

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***Corresponding Author**
**Dr.SagarikaKhatua**

Post Graduate Trainee, Department of Pulmonary Medicine, Veer SurendraSai Institute of Medical Sciences and Research (VIMSAR), Pgchowk, Burla, Odisha 768017, India

*Received: 02-08-2024*
*Accepted: 08-10-2024*
*Available online: 11-10-2024*



## A B S T R A C T

Echinococcosis is a rare infectious disease of human being that occurs by the larval stages of taeniidcestodes of the genus Echinococcus. Cystic Echinococcosis may often be diagnosed accidentally because the individual may remain asymptomatic for a long time due to the silent nature of the pathogen. Human are the accidental host and usually affected by handling an infected dog. The liver is the most frequently involved organ (65%) followed by lungs (25%). Characteristically the cysts are seen as solitary or multiple circumscribed or Oval masses on imaging. Sometimes symptoms of hydatid diseases like chest pain, breathlessness, expectoration, fever and hemoptysis can result from the release of antigenic material and secondary immunological reactions that develop from cyst rupture [1]. We report a case of incidental finding of Pulmonary Hydatid Cyst presenting as Neck of Femur fracture. A middle aged female with chief complaints of pain in the hip joint & unable to walk for 2 months was found to have decreased breath sound in left infraclavicular& mammary area. Chest x-ray showed well-defined homogenous opacity in left middle zone & some part of upper zone. The CECT thorax showed a large well defined cystic lesion with regular margin & parenchymal consolidation around the cystic lesion with mild pleural effusion. The liver parenchyma was normal. The patient was having leucocytosis with neutrophilia.

**Keywords:** Pulmonary hydatid cyst, Echinococcosis, incidental finding, cestode, Cystic Echinococcosis.

## INTRODUCTION

The causative organism is Echinococcusgranulosus. The definitive host is Dogs & Wolves. The intermediate host is sheep &cattles. Humans are accidental host when they accidentally ingest infected faeces of dogs. The larvae enters the duodenum & then penetrate to enter to the portal circulation. Through this the larvae enters to liver then through the systemic circulation to other organs like lungs, brain etc. Inside these organs the Larvae resides as cyst. The cysts are slow growing. They grow 1 cm in 6months & 2-3 cm in a year. This is generally asymptomatic. The giant cysts may cause pressure effect & the patients become symptomatic. If the cysts rupture, this may lead to anaphylaxis reactions & it may be fatal.

### Case Report

60 year old female presented to orthopaedic outdoor with complaints of pain in right hip and unable to walk for 2 months. X ray of the right hip joint was showing fracture of neck of femur & was planned for surgery. Then she was sent to pulmonary medicine OPD for pre-operative evaluation with chest x ray PA view. The patient was complaining of dull pain over right hip joint which was aggravated on touch & movement of that limb. She was unable to walk properly

for 2 months. There was a history of falling down & trauma to right hip joint 2 months back. There was no association of loss of consciousness, head injury at that time. The chief complaints were not associated with fever, cough & chest pain.

**CLINICAL FINDINGS & INVESTIGATIONS**

- Patient is conscious oriented to time, place & person.
- Average body built with a BMI of 23kg/$m^2$
- Pallor present
- No icterus, clubbing, cyanosis & lymphadenopathy
- No rise in JVP
- Vitals -within normal limit

**RESPIRATORY EXAMINATION**

On Inspection & palpation no significant abnormality was detected.

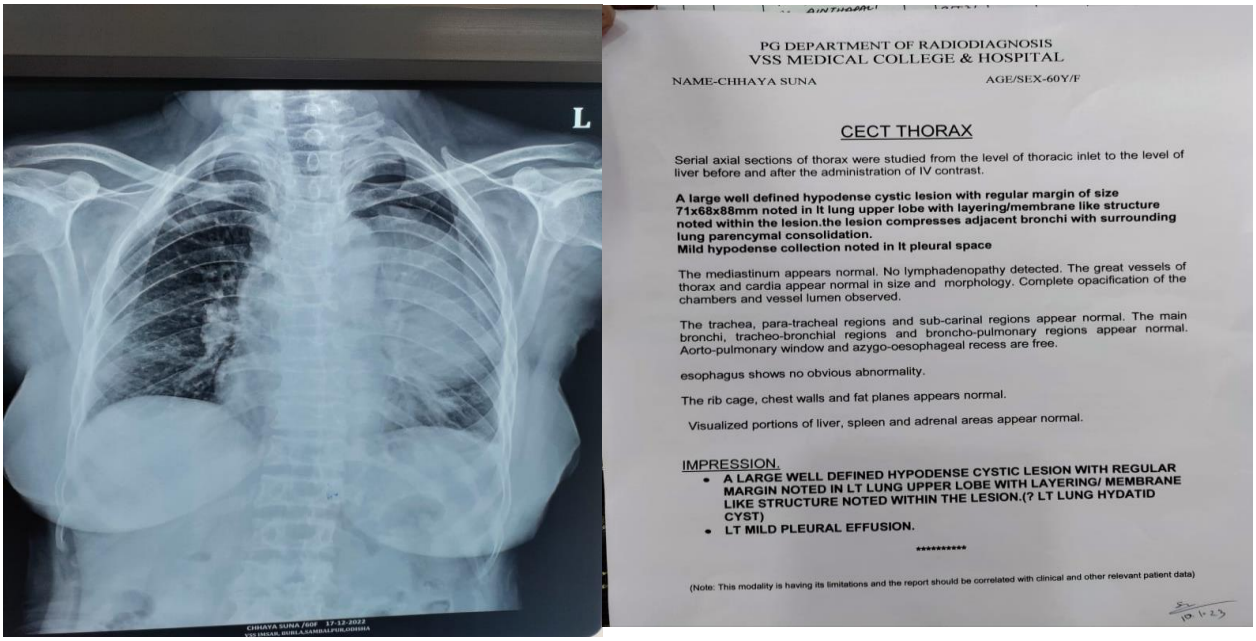
- Percussion- dull note is present over the 2nd ICS on left side in mid clavicularline, over the left axillary area & the left inter scapular area.
- Auscultation - decrease in breath sound over the left infraclavicular, axillary &interscapular areas.

**Digital chest x-ray PA view**

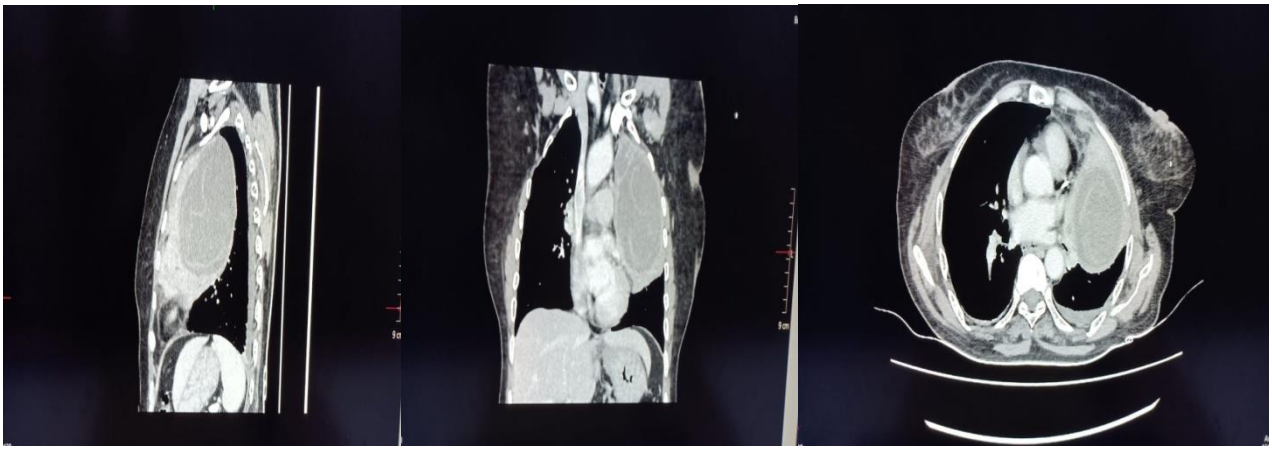
- Well defined homogenous opacity present over the middle zone, part of upper & lower zone on left hemi-thorax.
- No shifting of mediastinum.

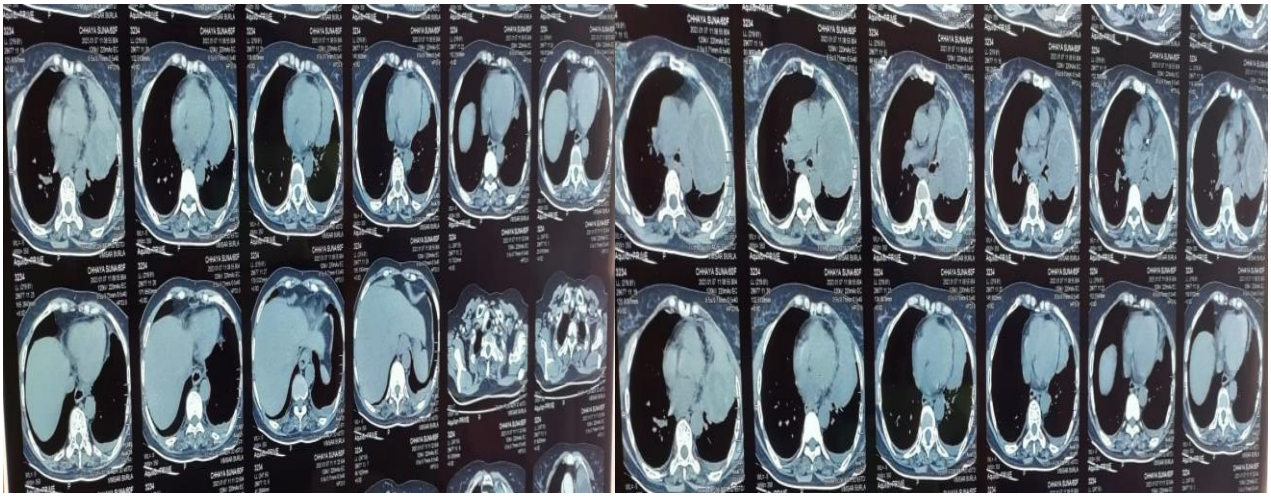
**CECT Thorax Finding**

- A large well defined hypodense cystic lesion with regular margin of size 71×68×88mm noted in left upper lobe with layering/ membrane like structure noted within the lesion.
- The lesion compresses adjacent bronchi with surrounding lung parenchymal consolidation.
- Mild hypodense collection noted in left pleural space.
- The liver, spleen and adrenal areas appear normal.




Membrane like structure inside the cystic lesion-





In the above cross sectional view of CT thorax the liver parenchyma is normal. So there is no involvement of liver in this case of Echinococcosis.

**MANAGEMENT**

- Main stay of treatment- SURGERY
- It can both confirm the diagnosis and treat the local complication.
- Surgical approaches-
  1) Enucleation
  2) Cystotomy (removal after aspiraton while preserving as much of lung parenchyma as possible)
- For complicated, giant cyst- Extensive resection and cavity marsupialization or surgical drain placement after cyst removal.
- Chemotherapy with Benzimidazoles-
  1) For small cyst
  2) When surgery is not feasible
- Albendazole is currently used for better bioavailability.
- PAIR Procedure is for hepatic cyst, but not in pulmonary cyst.
- Small cyst & uncomplicated cyst-

Tab ALBENDAZOLE (10-15 mg/kg/day) twice daily in 3 cycles e.g- Tab ALBENDAZOLE 400mg twice daily for 28 days, followed by 14 days of drug free period.

Then another 2 cycles of drug for 28 days, followed by drug free period of 14 days. During the drug free period, USG to be done to look out the size of cyst & the effect of drug.

**DISCUSSION**

In this patient as the hydatid cyst is uncomplicated & asymptomatic, Tab ALBENDAZOLE was given to the patient for 28 days & the patient is now under followup.

## CONCLUSION

The patient is totally asymptomatic for hydatid cyst in lung. But there is a chance of rupture of the cyst. Urticaria and wheezing to anaphylaxis may occur due to hypersensitivity of ruptured cyst which may be fatal sometimes. Treatment of pulmonary hydatid cyst is either pharmacotherapy and/or surgery. Surgical intervention is the most preferred treatment of choice. Pharmacotherapy includes oral administration of drugs like Albendazole or Mebendazole. This is a rare case of Primary Pulmonary Hydatid Cyst as there is mostly coexistence of hepatic hydatid cyst with pulmonary hydatid cyst.

## REFERENCE

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