

Unusual Cause Of Unilateral Transudative Pleural Effusion



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70 year old female, farmer, k/c/o Diabetes mellitus and Hypertension since 20 years

Chief Complaints-

- Breathlessness - 3 days (mMRC grade 2).
- Fever - 3 days (high grade, associated with chills).
- Dull right sided chest pain - 3 days
- Loss of appetite - 2 days.
- No history of cough, hemoptysis, wheeze , orthopnoea, nausea and vomiting.

Clinical Examination

- Temperature - 100.4 F
- Pulse rate – 102 beats/min
- RR – 28/min
- BP – 120/80 mm of Hg
- Spo₂ – 96 % on 36 % FiO₂ (P/F ratio= 266)

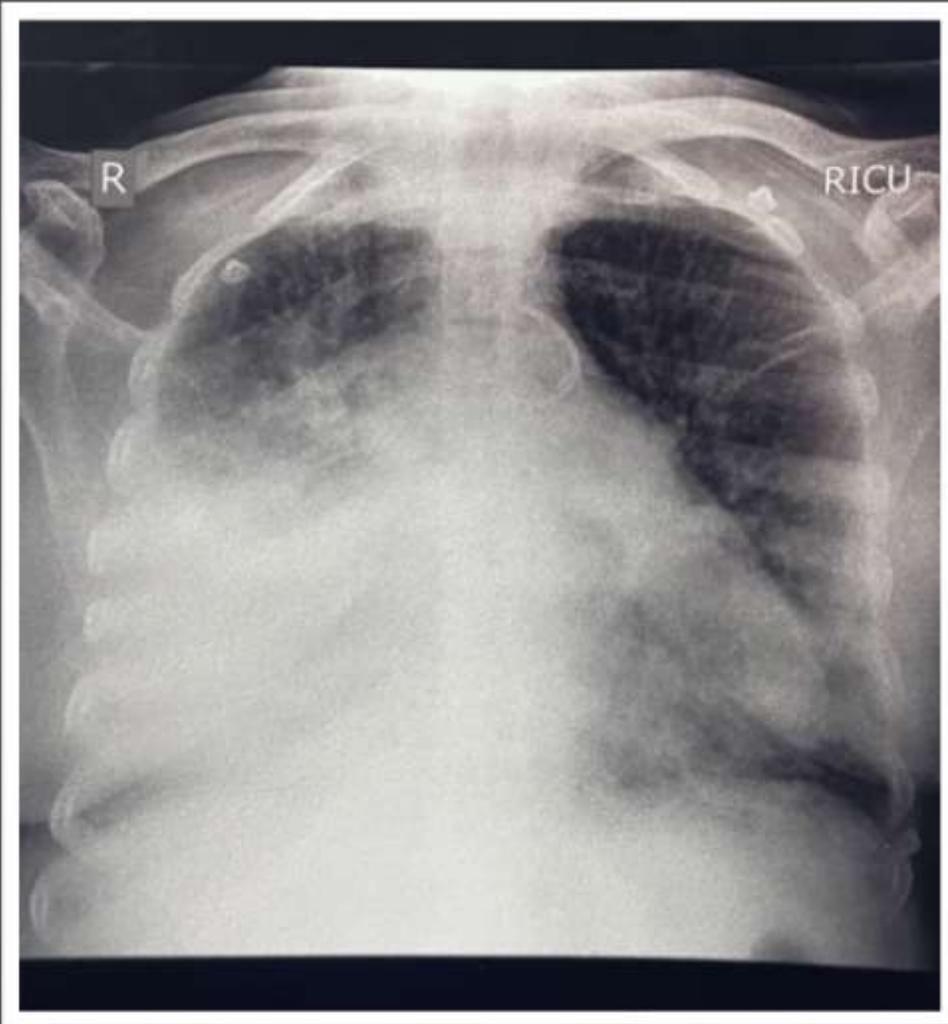
Clinical examination.....contd

- Respiratory system- Diminished breath sounds and coarse crackles over the right MA, ISA, IAA.
- Rest other systemic examination – NAD.

Hb- 13.0 g/dl	Sodium- 134
TLC- 6,600 cells	Potassium- 4.63
Platelets- 1.67 L	Urea- 18
Total bilirubin – 0.33	Creatinine- 0.60
SGOT- 10	
SGPT- 06	
ALP- 108	

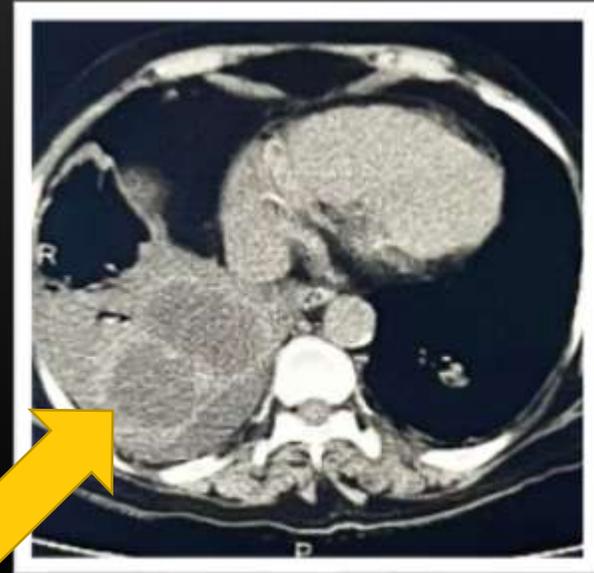
Laboratory Investigations

Radiological Investigations



- **CHEST RADIOGRAPH-** Homogenous opacity in the right lower zone suggestive of right pleural effusion.

CT CHEST –



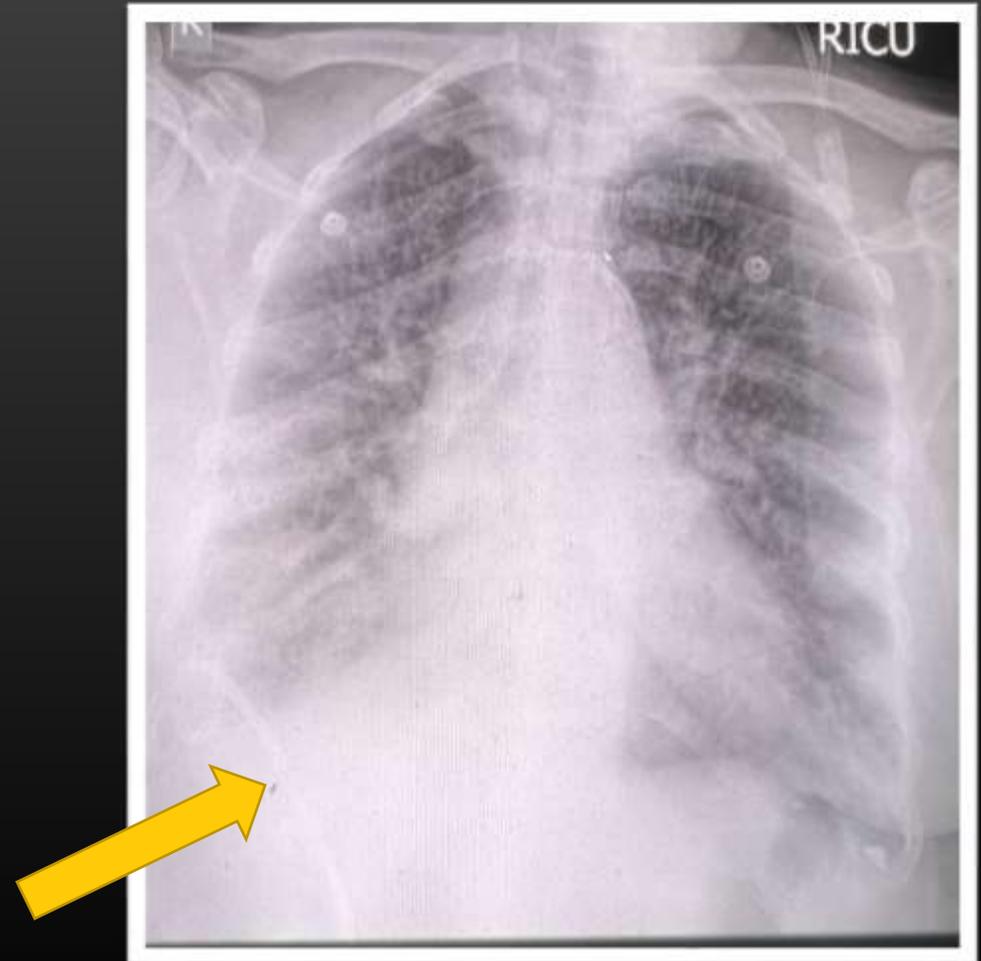
- Moderate right sided pleural effusion.
- Two well-defined hypodense lesions with fluid contents and thick, enhancing walls. The first (38 x 33 x 34 mm) and the second (70 x 71 x 64 mm) both situated in the right lower lobe- indicative of lung abscesses.
- Consolidation of the adjacent lung tissue.

Clinical Diagnosis

**Lung abscess with complicated
parapneumonic effusion**

Clinical Course

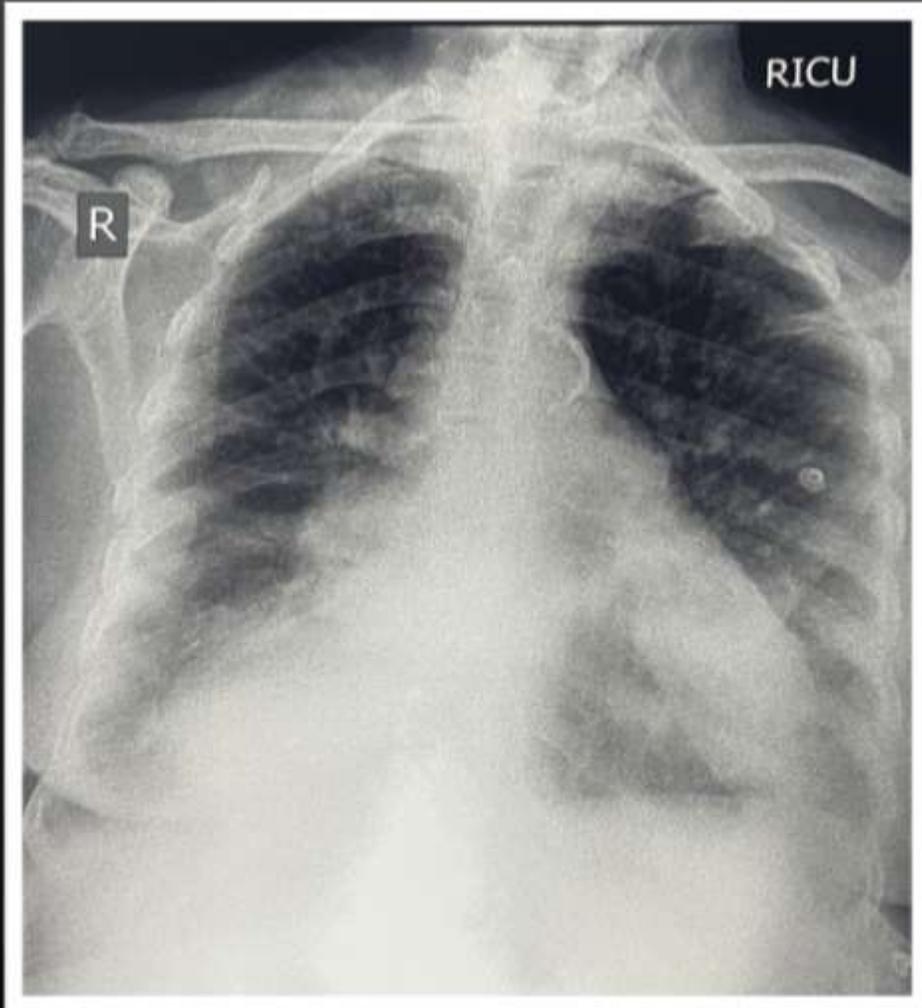
- Patient was started on IV Ceftriaxone and Metronidazole.
- **Pigtail 14 F** was inserted in view of right sided pleural effusion and pleural fluid was sent for analysis.



Pleural Fluid Analysis

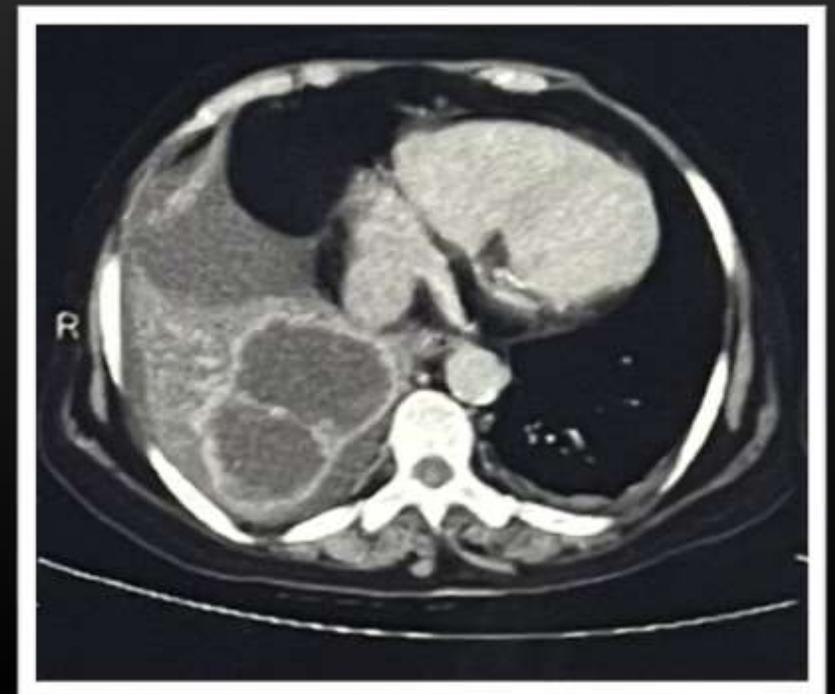
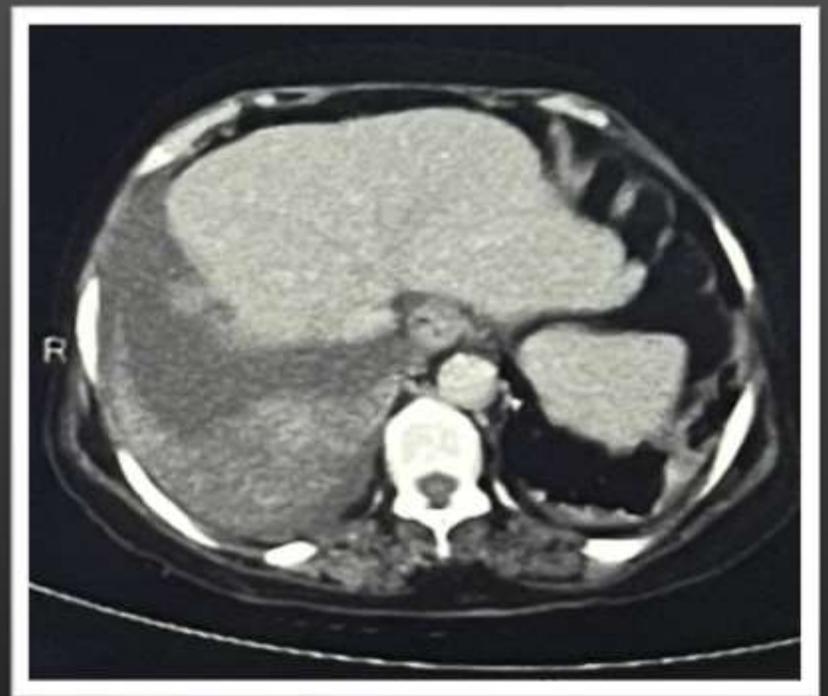
Colour- yellow	No deposits
Cobweb/coagulum – Absent	RBCs- moderately present
Protein- 1.8 gm%	
Glucose- 146 mg/dl	
TLC - 500 cells per cubic millimeter	
ADA- 5.58 IU/L	

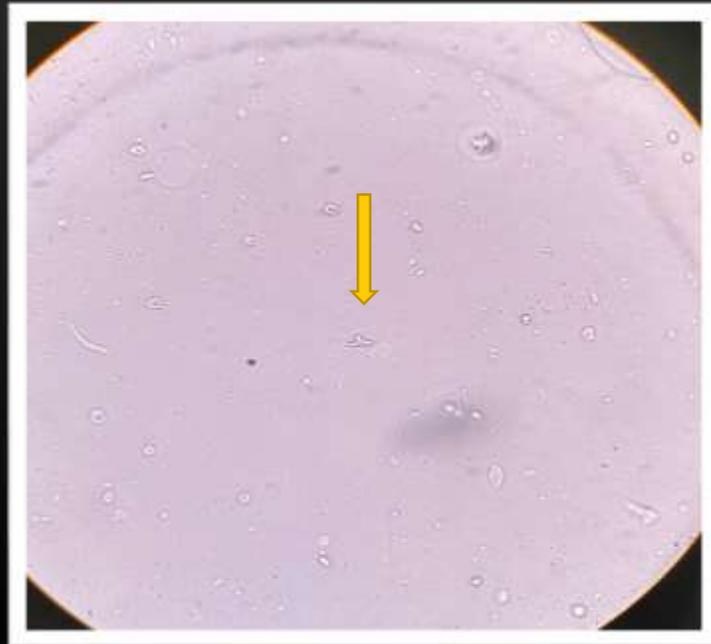
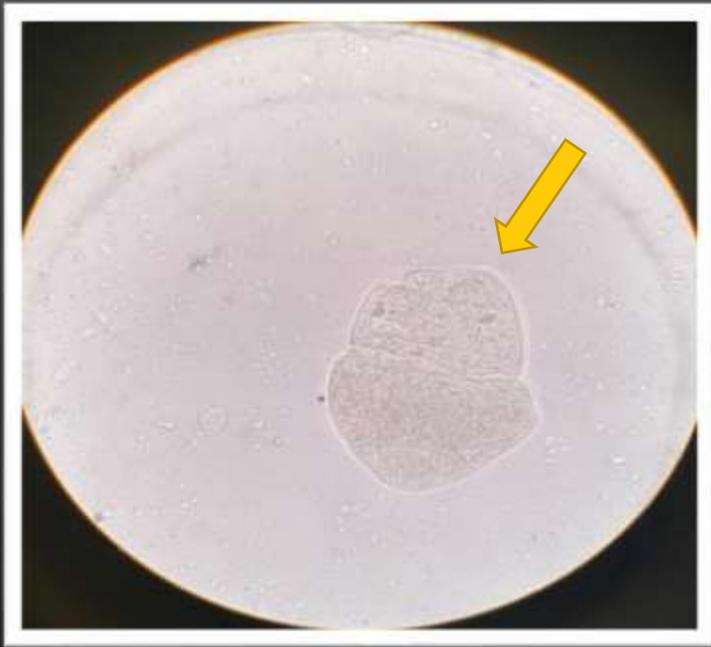
Applying Light's criteria, the pleural fluid was classified as **TRANSUDATIVE**.



- Chest radiograph showed resolution.
- So pig tail was removed and patient was discharged on oral antibiotics.

- Patient was readmitted with similar complaints.
- Radiological investigations were repeated . Chest radiograph showing right sided pleural effusion , and there was no resolution on CT chest.
- Thoracocentesis was repeated and pleural fluid analysis again showed **TRANSUDATIVE EFFUSION** (An unusual finding in a case of lung abscess) .





Pleural fluid was also sent for microbiological evaluation which revealed the presence of free **HOOKLETS** and **PROTOSCOLICES**, suggestive of *Echinococcus* hydatid cysts.

Revised diagnosis

Ruptured Hydatid Cyst With Transudative Pleural Effusion

Lung abscess was a mimick for hydatid cyst -
A very unusual presentation

Management

- Cardiothoracic and Vascular Surgery (CVTS) referral was taken and recommended a **right lower lobe lobectomy**.
- Patient and the relatives were counselled regarding the need for surgery but patient didn't want to undergo surgery and was discharged on **Tab. Albendazole 400 mg twice daily**.
- Follow-up was taken through telephonic conversation after 3 months and the patient was doing well.

Discussion

- Liver is the most common site (60-70%) followed by lung (20%).

Pleural effusion in the context of pulmonary hydatid cyst is a rare complication

- Few cases have been reported with different presentations-
- A rare presentation of pulmonary hydatid cyst can be in form of Empyema and haemothorax

Empyema and haemothorax due to ruptured pulmonary hydatid cyst- A rare presentation

Marathe, Anant Prabhakar; Tadvi, Mayur; Mehta, Vaidehi J *IP International Journal of Medical Microbiology and Tropical Diseases : IJMMTD*, 28 Jul 2023, Vol. 9, Issue 2, pages 126 - 128

Transudative pleural effusion as pulmonary hydatid cyst is exceedingly rare



Cured Transudative Pleural Effusion: A Case Report

[Mohsen Shafipoor](#),¹ [Arda Kiani](#),¹ [Kambiz Sheikhy](#),² [Atefeh Abedini](#),¹ and [Majid Golestani Eraghi](#)^{✉3}

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One such case was reported where the pleural fluid analysis showed transudative pleural effusion but microbiological examination was normal and the diagnosis in this case was made based on surgical findings.

Clinical Pearls

Hydatid cyst presenting as a lung abscess is rare.

Transudative pleural effusion as a complication of hydatid cyst is extremely rare.

Echinococcus evidence in transudative pleural effusion has not been reported yet.

Take Home Message

In a suspected case of Lung Abscess with Transudative pleural effusion we should also consider Ruptured Hydatid cyst as a differential diagnosis.

Acknowledgement

- Department Of Microbiology

Thank You