

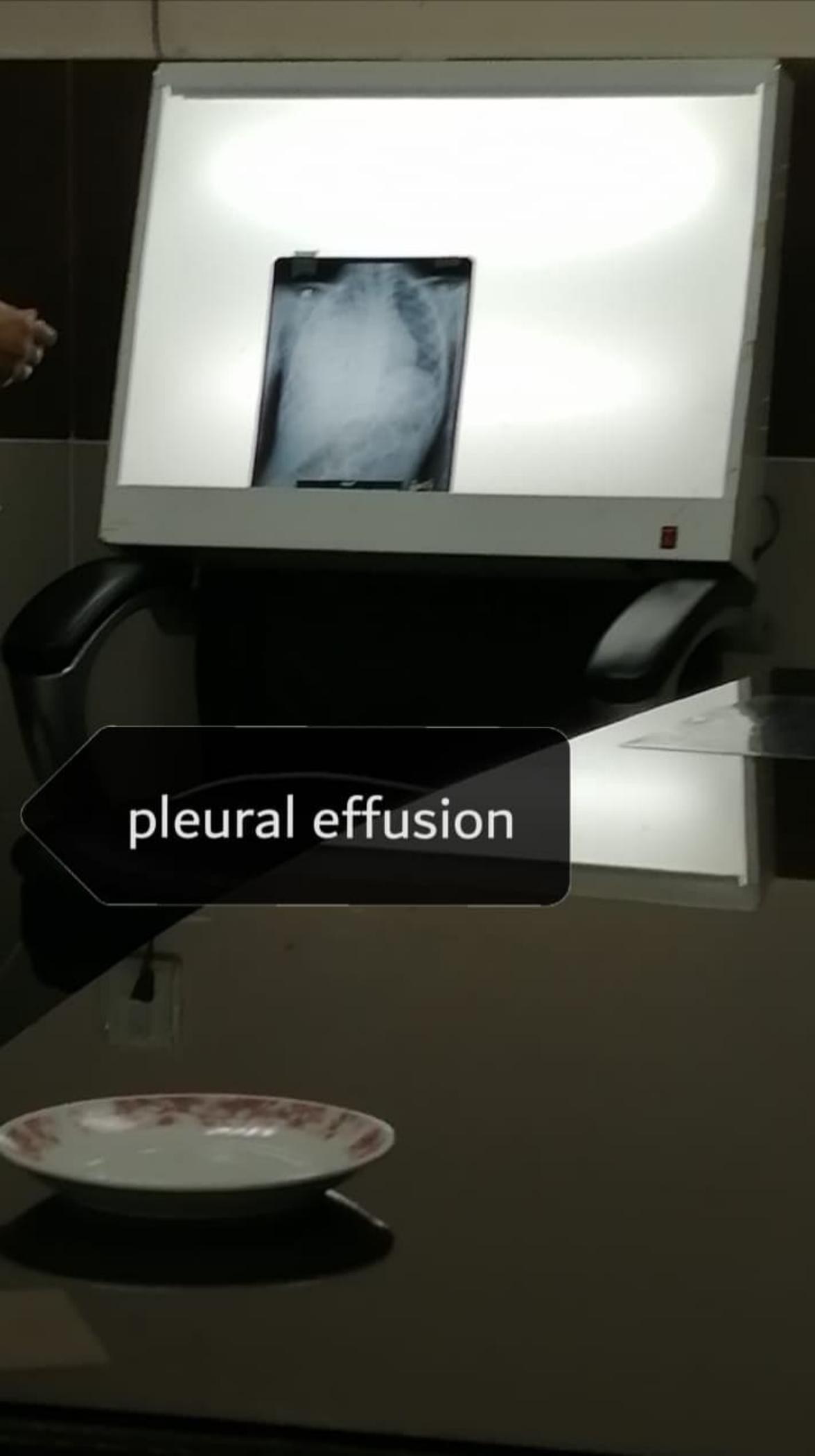


● cardiomegaly

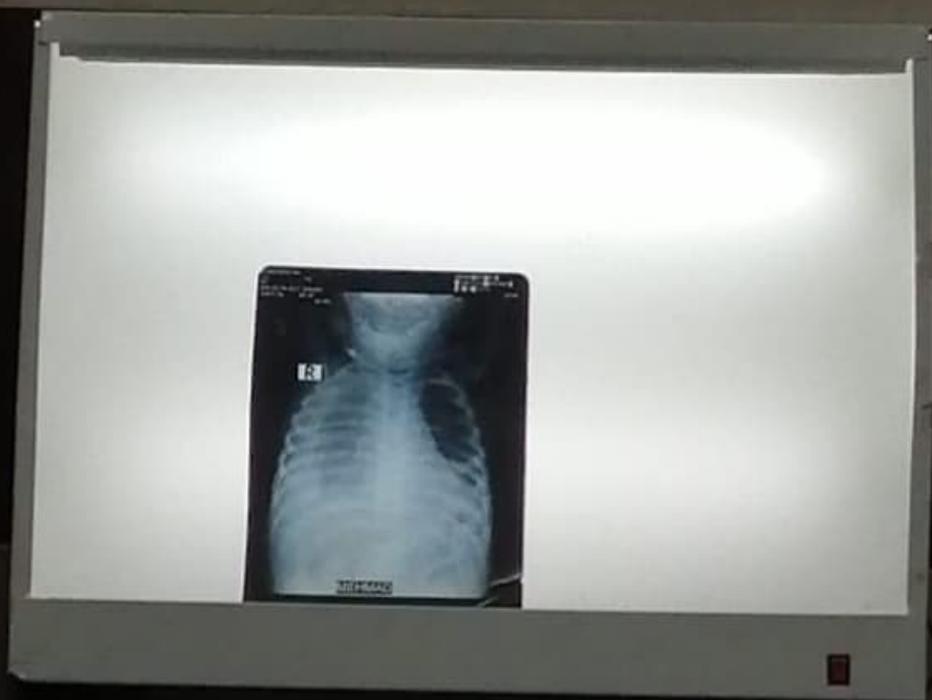




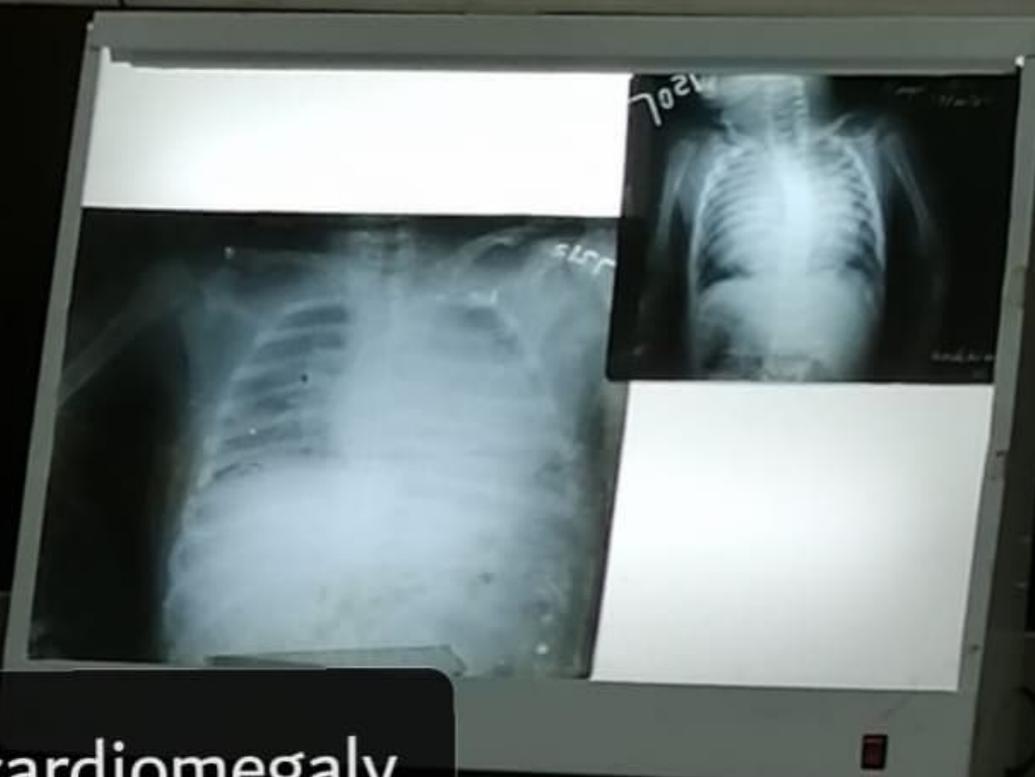
effusion with mediastinal  
shift towards the right



pleural effusion



● pleural effusion



cardiomegaly

●

wall to wall  
cardiomegaly (ebstein  
cardiomegaly)



● diaphragmatic  
hernia

left pneumothorax



5 points to identify: 1. hyperlucent lung field. 2. no lung markings. 3. collapsed lung margin. 4. tracheal shift to opposite side. 5. flattened diaphragm.



tetralogy of fallot  
(boot shaped heart)



wide spread mediastinum..  
d/d's: (lymphoma, thymoma,  
sarcoidosis)



collapse  
consolidation(left side)



- left collapse consolidation

- with rib crowding





● right middle and lower lobe consolidation..



foreign body

pneumonia



● osteopetrosis





cardiomegaly. plus sail sign/  
wave sign(thymic shadow)



●  
left hilar  
lymphadenopathy(right lower  
lobe consolidation)

right lung abcess in  
lower zone(air fluid level)



diaphragmatic eventration.  
(hyper lucency with no lung  
marking)



wrist xray(osteopenic  
shaft+curved wrist)  
Rickets(fraying flaying cupping)



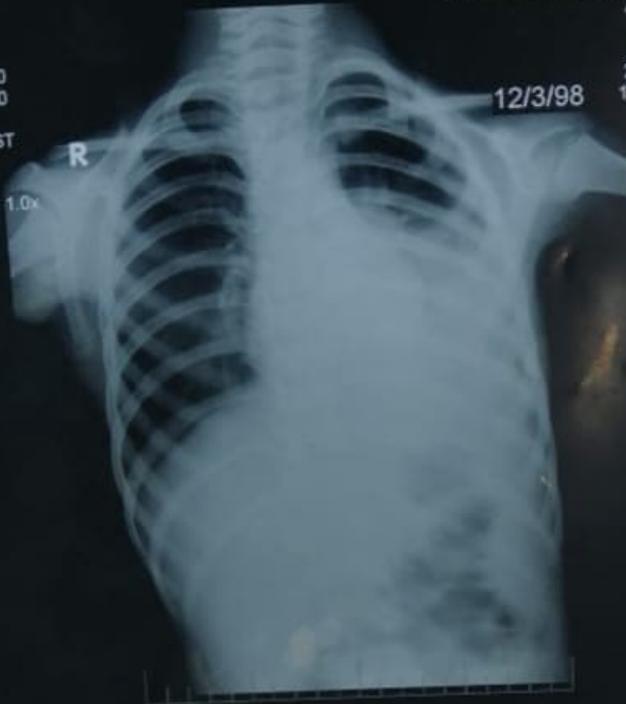
pneumonia(tracheal shift to left with air bronchogram)

ru0  
Ex:

Se: 1/0  
Im: 1/0

CHEST

Mag: 1.0x



SINA WAIZ HOSPITAL KUNDUZ  
ABOBAKAR

O 5

Acc:

2019 Jun 02  
16:13:58.000

12/3/98

R

W:1009 L:371

pleural  
effusion(meniscus sign)



marble bone  
disease



right collapsed  
consolidation

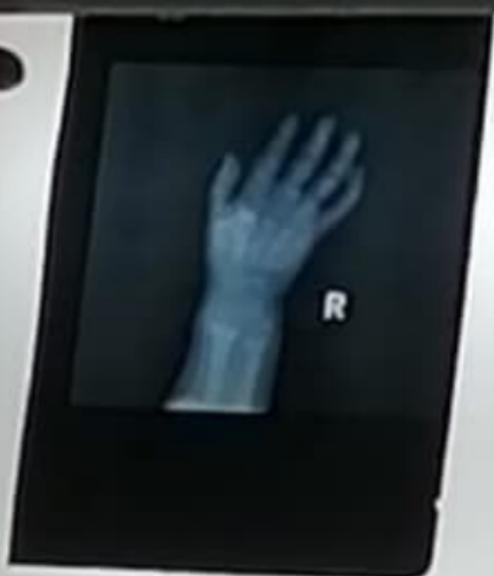


B/L prominent  
hilum

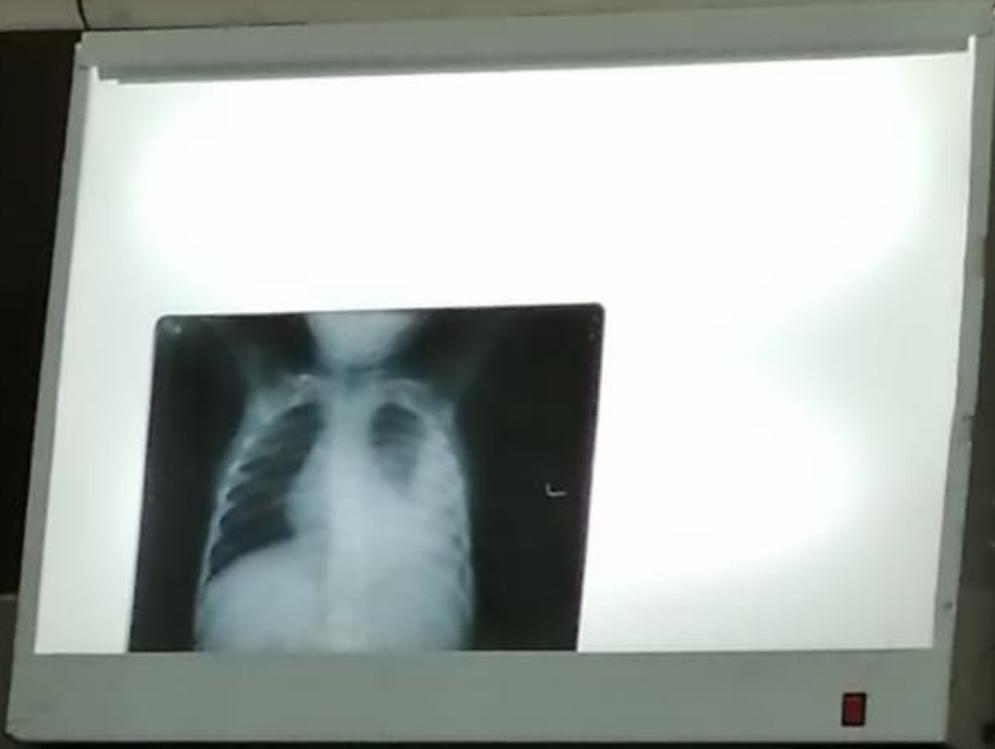
● right parapneumonic  
effusion (blunted cardiophrenic  
angle)



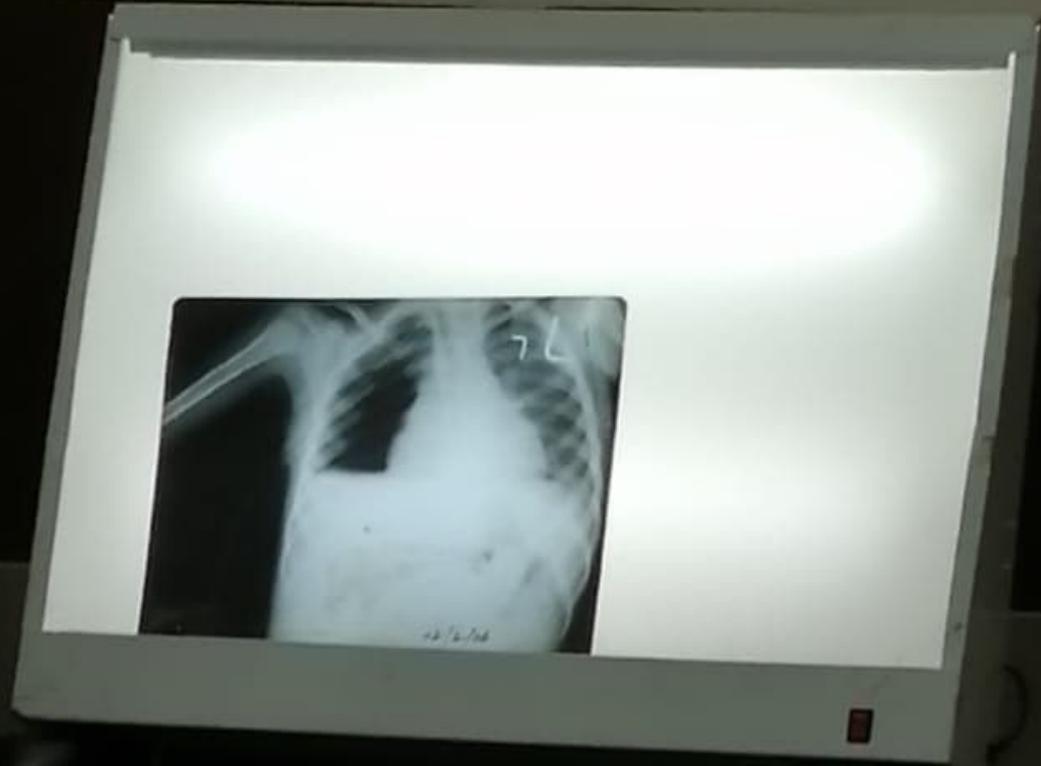
● right pneumothorax



Rickets xray  
showing cupping



● pleural effusion left sided



● hydropneumothorax





right upper and lower lobe  
consolidation(with paralytic  
ileus)



right lung collapsed



right sided foreign  
body(hyperlucent lung field  
with lung markings)



left  
Pneumothorax(mediastinal  
shift towards right)

# MILIARY TUBERCULOSIS



**Miliary TB.**

**Q:** Write down the radiological **finding** of this X-ray.

**A:** X-ray chest PA view showing multiple miliary mottling involving all the zones of both lung fields.

**Q:** What is the **diagnosis**?

**A:** Miliary TB.

**Q:** Mention four common **differential** diagnoses.

**A:** As follows:

- Sarcoidosis.
- Pulmonary eosinophilia.
- Histoplasmosis.
- Pneumoconiosis.

**Q:** Mention four **investigations**.

**A:** As follows:

- CBC count with ESR and circulating eosinophil count.
- Sputum for AFB.
- Tuberculin test.
- Bronchoscopy and bronchoalveolar lavage.

**Q:** What are the common **presentations** of this patient?

**A:** Low-grade continued fever, mostly evening rise, night sweat, weight loss, cough with haemoptysis etc.



**Trachea central  
angles obliterated  
=Right sided consolidation**



**Right upper and middle lobe  
patchy consolidation:  
Brochopneumonia  
-prominent hila**

Right side looking hyperlucent  
cz overexposed film-lung  
markings seen

-Left sided collapse  
consolidation=

Angles obliterated and  
mediastinum pulled to same  
side

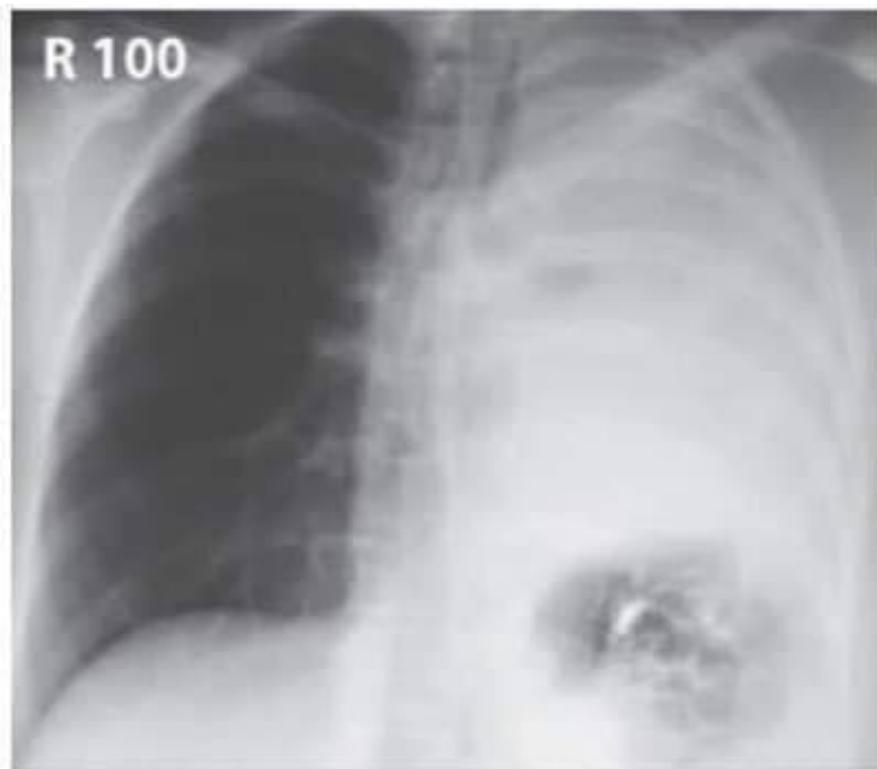


left diaphragmatic hernia

Barium meal and follow through

+CT chest and proper referral





**Collapse of the left lung.**

**Q:** What is your radiological **finding**?

**A:** X-ray chest PA view showing:

- Homogeneous opacity involving the whole left lung field.
- Trachea and heart shifted to the left.
- Hypertranslucency of the right lung field.

**Q:** What is your radiological **diagnosis**?

**A:** Collapse of the left lung.

**Q:** Mention two **causes**.

**A:** As follows:

- Bronchial carcinoma with complete bronchial obstruction.
- Foreign body in the left bronchus.

**Q:** Mention three **physical findings**.

**A:** As follows:

- Palpation: Trachea and apex beat shifted to the left.
- Percussion: Dullness in the whole left hemithorax.
- Auscultation: Breath sound and vocal resonance are diminished on the left side.

**Q:** Mention two further **investigations**.

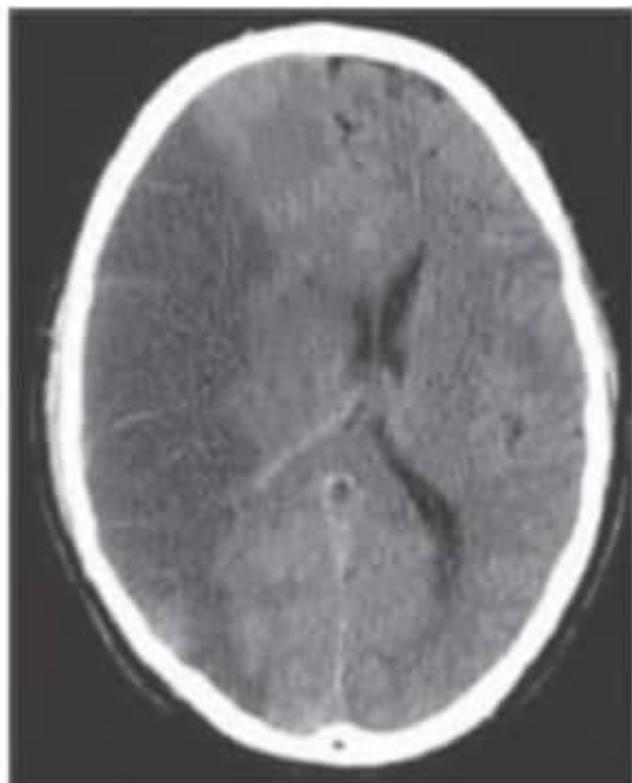
**A:** As follows:

- CT scan of the chest.
- Bronchoscopy.

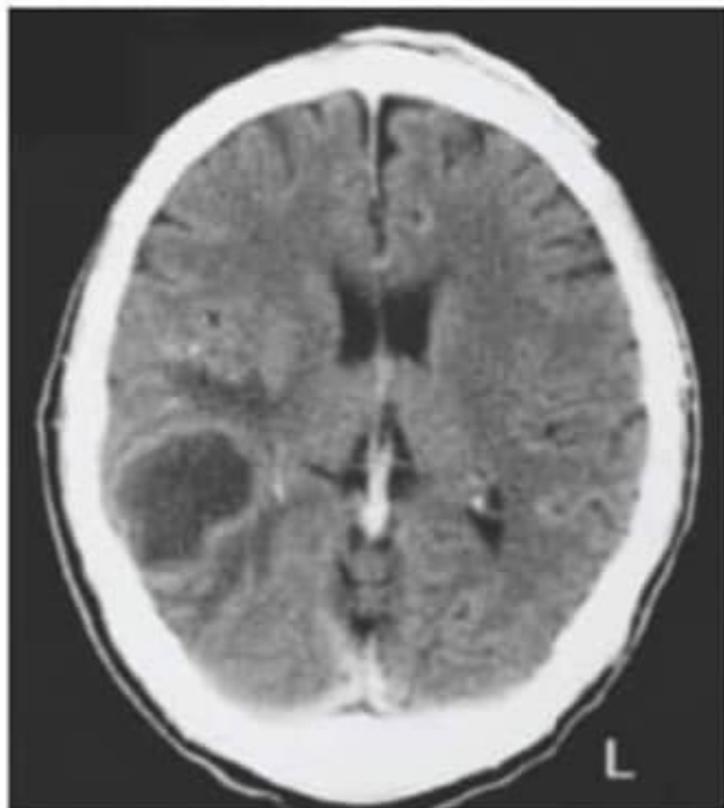


**Xray left wrist joint  
=Rickets**

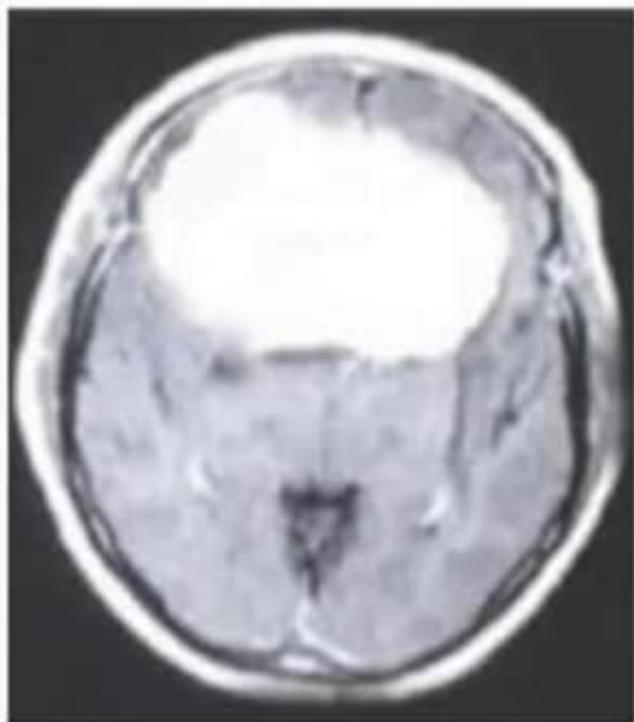
- 1. Osteopenic bones(decreased density)**
- 2. Cupping of radius ends**
- 3. Fraying(zigzag ends)**
- 4. Flaying(broad ends)**



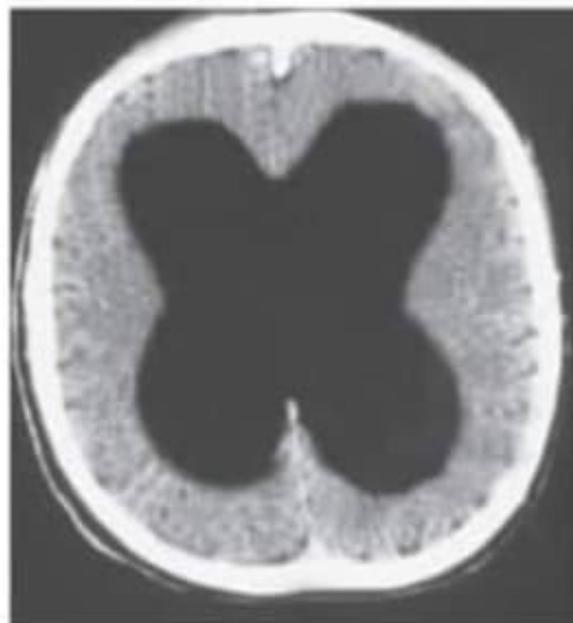
CT scan of the brain shows a hypodense area on the right side with shifting of the ventricle to the left side. The diagnosis is **right-sided cerebral infarction**.



Contrast CT scan of the head showing a ring-like cystic hypodense lesion on the right parietal lobe. The diagnosis is **cerebral abscess**.



CT scan of the head shows a hyperdense, irregular mass in the frontal region. The diagnosis is **meningioma**.



CT scan of the head shows marked dilatation of both lateral ventricles with thinned brain tissue outside the hypodense area. The diagnosis is **hydrocephalus**.

## POLYCYSTIC KIDNEY DISEASE



Polycystic kidney disease.

**Q:** Write down the radiological **finding** of this X-ray.

**A:** Intravenous urogram (IVU) showing:

- Enlargement of both kidneys—left one larger than the right.
- Distortion, stretching and elongation of the pelvicalyceal system, giving rise to a spidery appearance.
- Left ureter is dilated and shifted medially towards the vertebral column.

**Q:** What is your radiological **diagnosis**?

**A:** Polycystic kidney disease.

**Q:** Mention a single **investigation**.

**A:** Ultrasonography of both kidneys.

**Q:** If the patient is **unconscious**, what is the likely diagnosis?

**A:** Subarachnoid haemorrhage (as a result of rupture of berry aneurysm).

**Q:** Mention **one treatment**.

**A:** Ultrasonic-guided aspiration of a large cyst.

# PERICARDIAL EFFUSION



**Pericardial effusion.**

**Q:** Write down the radiological **findings** of this X-ray.

**A:** X-ray chest PA view showing:

- Heart is enlarged in the transverse diameter, globular, pear-shaped with a clear margin.
- Lung fields are oligoemic.

**Q:** What is the radiological **diagnosis**?

**A:** Pericardial effusion.

**Q:** Name five common **causes** of pericardial effusion.

**A:** As follows:

- TB.
- Lymphoma.
- Following acute pericarditis.
- Collagen diseases.
- Myxoedema.

**Q:** Write down four important **signs** in the favour of your diagnosis.

**A:** As follows:

- Raised jugular venous pressure (JVP).
- Narrow pulse pressure; may be pulsus paradoxus.
- Heart sounds are muffled or absent.
- Enlarged, tender liver.

**Q:** Name one **investigation** to confirm the diagnosis.

**A:** Echocardiography.

**Q:** Mention one **serious complication** of this. How would you manage it?

**A:** Cardiac tamponade. Managed by immediate paracentesis.

## SARCOIDOSIS



**Bilateral hilar lymphadenopathy with parenchymal lung involvement.**

**Q:** Write down the radiological **finding** of this X-ray.

**A:** X-ray chest PA view showing:

- Bilateral hilar lymphadenopathy.
- Reticulonodular shadow in both lung fields.

**Q:** What is your radiological **diagnosis**?

**A:** Sarcoidosis.

**Q:** Mention four **physical findings**.

**A:** As follows:

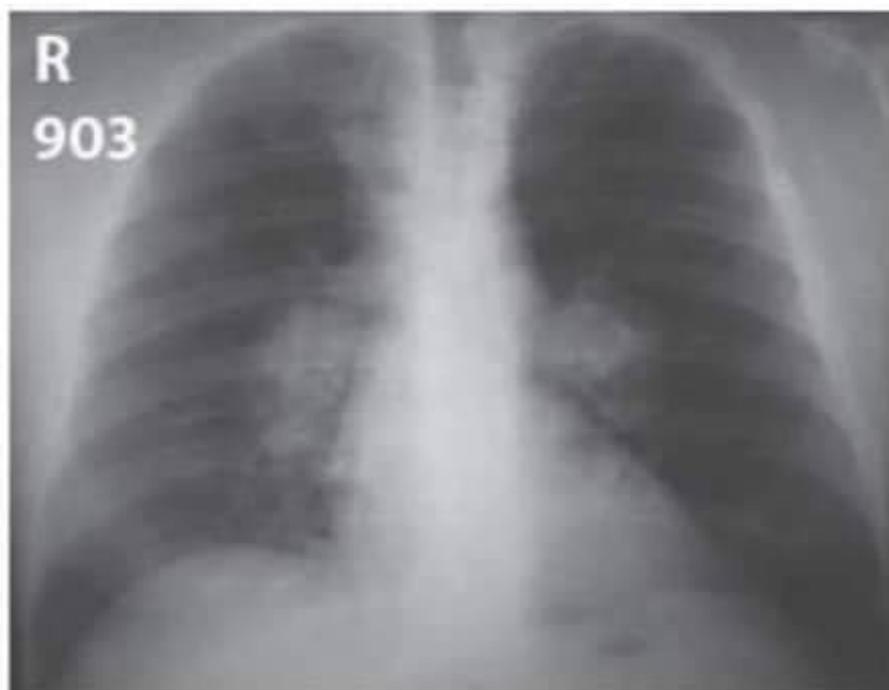
- Erythema nodosum.
- Lymphadenopathy in other parts of the body.
- Hepatosplenomegaly.
- Bilateral parotid enlargement.

**Q:** Write three **investigations** to confirm.

**A:** As follows:

- Tuberculin test (usually zero).
- FNAC or biopsy from the lymph node.
- Bronchoscopy and biopsy.

## BILATERAL HILAR LYMPHADENOPATHY



**Bilateral hilar lymphadenopathy.**

**Q:** Write down the radiological **finding** of this X-ray.

**A:** X-ray chest PA view showing bilateral hilar lymphadenopathy.

**Q:** Write three **causes**.

**A:** As follows:

- Sarcoidosis.
- Lymphoma.
- TB.

**Q:** Mention one **drug** that can cause this type of finding.

**A:** Anticonvulsant such as phenytoin or diphenylhydantoin (called pseudolymphoma).

**Q:** Mention three **physical findings**.

**A:** As follows:

- Lymphadenopathy in other parts of the body.
- Hepatomegaly.
- Splenomegaly.

**Q:** Write two **investigations**.

**A:** As follows:

- CBC count, ESR.
- Tuberculin test.
- FNAC or biopsy of the lymph node.

# CALCIFICATION OF THE LUNG PARENCHYMA



**Calcification of lung parenchyma.**

**Q:** Write down the radiological **findings** in this X-ray.

**A:** X-ray chest PA view showing multiple calcified shadows of variable sizes and shapes, involving all the zones of both lung fields.

**Q:** What is your radiological **diagnosis**?

**A:** Multiple calcifications in the lung parenchyma.

**Q:** Mention five **causes**.

**A:** As follows:

- TB (usually healed, commonly in the upper zone).
- Adult chickenpox pneumonia (widely distributed, usually small, 1–3 mm).
- Histoplasmosis (surrounded by a small halo) and other fungal infection.
- Hamartoma (popcorn calcification).
- Hypercalcaemia as a result of any cause.
- Alveolar microlithiasis.
- Silicosis.

## SURGICAL EMPHYSEMA



Surgical emphysema with a bilateral chest tube.

**Q:** Write down the radiological **findings** in this X-ray.

**A:** X-ray chest PA view showing:

- Increased translucency with collapsed lung margin on the right side.
- There are multiple translucent shadows in the soft tissue outside the thoracic cavity on both sides.
- Intrathoracic (IT) tube is seen on both sides.

**Q:** What is your radiological **diagnosis**?

**A:** Right-sided pneumothorax with subcutaneous emphysema.

**Q:** Mention three **causes**.

**A:** As follows:

- Traumatic (road traffic accident, penetrating injury).
- During aspiration of pneumothorax or introduction of the IT tube.
- Acute severe asthma (as a result of rupture of alveoli).
- Intermittent positive pressure ventilation.



**Fig. B:** Bilateral extensive TB.

**Q:** Write down the radiological **finding** of the X-ray shown in Figure B.

**A:** X-ray chest PA view showing patchy opacities involving both the upper and middle zones in both right and left lungs.

**Q:** What is the radiological **diagnosis**?

**A:** Bilateral extensive TB.



**Fig. C:** Tubercular cavity in the left side.

**Q:** Write down the radiological **finding** of the X-ray shown in Figure C.

**A:** X-ray chest PA view showing patchy opacities with a cavity in the left upper zone.

**Q:** What is the radiological **diagnosis**?

**A:** Pulmonary TB.

**Q:** What is the **significance** of this finding?

**A:** Presence of the cavity indicates an active and open case of TB.

## HYDROPNEUMOTHORAX



**Right-sided hydropneumothorax.**

**Q:** Write down the radiological **findings** of this X-ray.

**A:** X-ray chest PA view showing:

- Increased translucency with collapsed lung margin on the right side.
- There is a horizontal fluid level with obliteration of right costophrenic and cardiophrenic angles.

**Q:** What is your radiological **diagnosis**?

**A:** Right-sided hydropneumothorax.

**Q:** Mention one **important bedside physical finding**.

**A:** Succussion splash.

**Q:** What are the **causes**?

**A:** As follows:

- Iatrogenic (during aspiration of pleural fluid)—common cause.
- Bronchopleural fistula.
- Trauma (penetrating injury, thoracic surgery).
- Rupture of lung abscess.
- Oesophageal rupture.
- Erosion by bronchial carcinoma.
- Pulmonary TB.

**Q:** How to **treat**?

**A:** As follows:

- Insertion of the IT tube.
- Treatment of the specific cause.

## HOMOGENEOUS OPACITY OF ONE HEMITHORAX



**Homogeneous opacity of the right lung.**

**Q:** Write down the radiological **findings** of this X-ray.

**A:** X-ray chest PA view showing homogeneous opacity involving the whole right hemithorax.

**Q:** Mention three **differential diagnoses**.

**A:** As follows:

- Massive consolidation.
- Massive pleural effusion.
- Complete collapse of the right lung.

**Q:** Mention three **investigations**.

**A:** As follows:

- CT scan of the chest.
- Bronchoscopy and biopsy.
- CT-guided FNAC.

## ANKYLOSING SPONDYLITIS



Fig. A: Ankylosing spondylitis.

**Q:** What are your **findings** in the X-ray shown in Figure A?

**A:** X-ray of lumbosacral spine anteroposterior (AP) view showing:

- Calcification of anterior longitudinal and interspinous ligaments.
- There is syndesmophyte formation with bridging, giving rise to a bamboo-spine appearance.

**Q:** What is your radiological **diagnosis**?

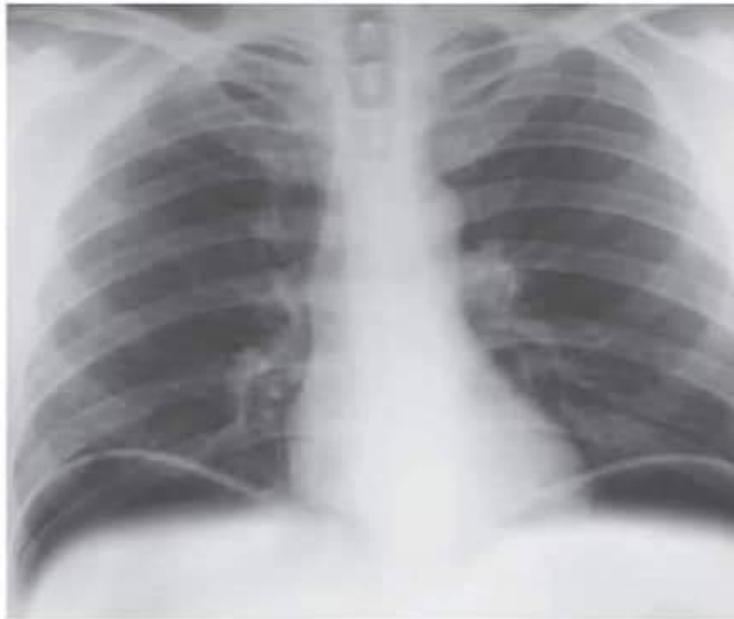
**A:** Ankylosing spondylitis.

**Q:** Mention one **bedside test**.

**A:** Schober test.

**Q:** Write one **investigation** that is helpful for your diagnosis.

**A:** HLA-B27.



**Fig. B:** Gas under both domes of the diaphragm.

**Q:** Write down the radiological **findings** of the X-ray shown in Figure B.

**A:** X-ray chest PA view showing gas under both domes of the diaphragm.

**Q:** Write down five **causes**.

**A:** As follows:

- Perforation of the hollow viscus containing gas.
- Laparotomy or laparoscopy.
- Penetrating injury of the abdomen.
- Burst appendicitis.
- Tubal insufflation.



**Pulmonary oedema.**

**Q:** Write down the radiological **finding** of this X-ray.

**A:** CXR PA view showing:

- Fluffy or woolly opacities, spreading from both hilar regions, giving a butterfly or bat's wing appearance.
- Heart is enlarged in the transverse diameter.

**Q:** What is your radiological **diagnosis**?

**A:** Pulmonary oedema.

**Q:** Mention three **causes**.

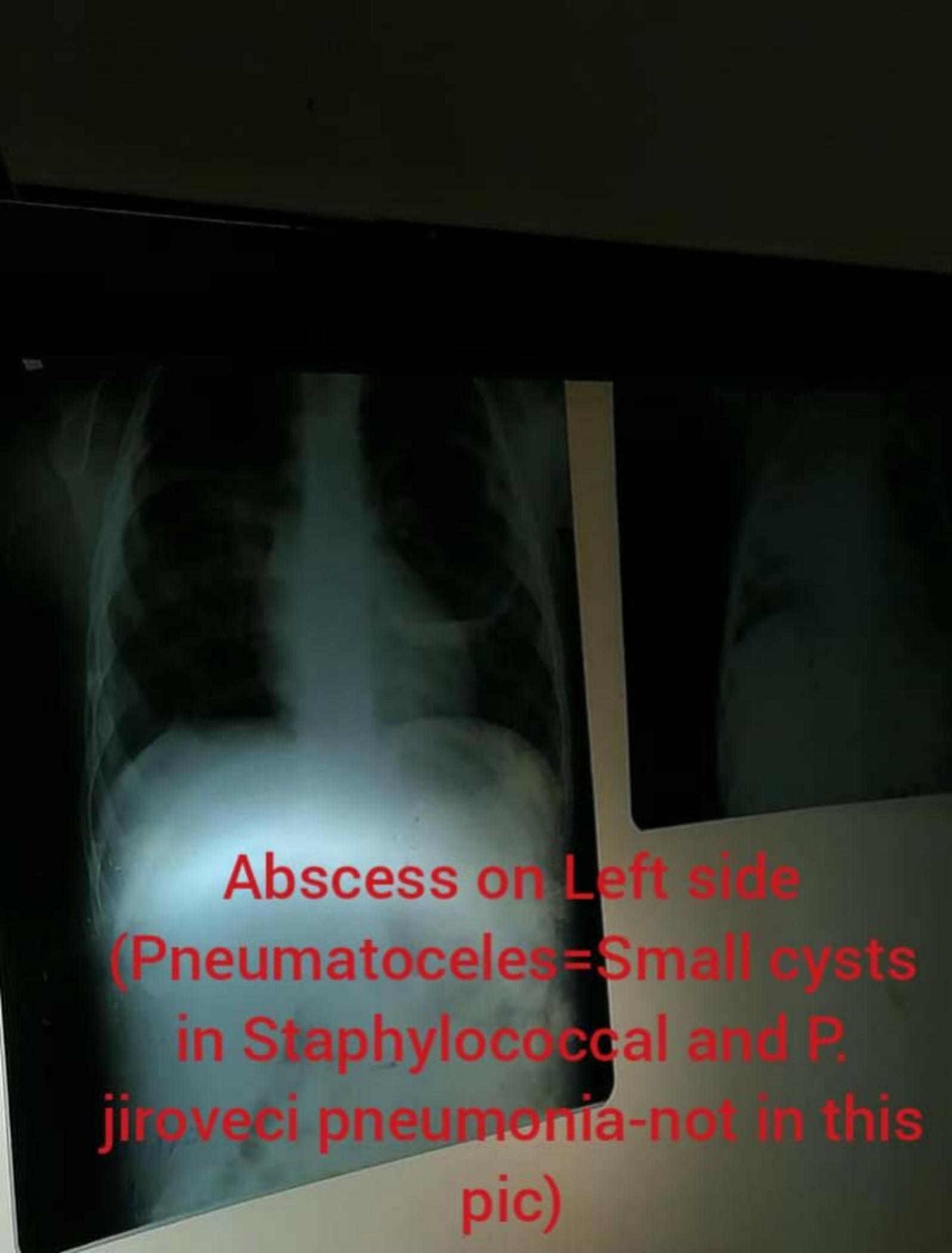
**A:** As follows:

- Acute LVF as a result of any cause.
- Mitral stenosis.
- Excessive or rapid transfusion of fluid or blood.

**Q:** How to **manage**?

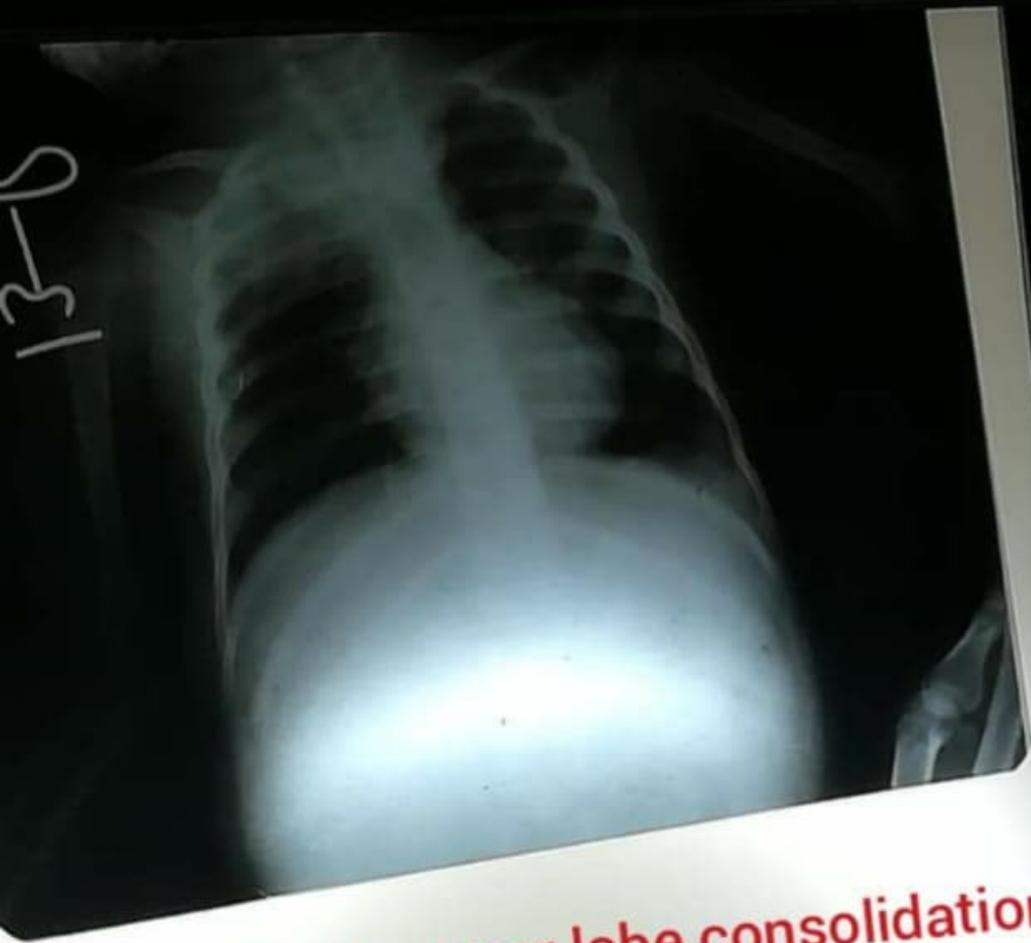
**A:** As follows:

- Propped-up position.
- Oxygen inhalation 4–6 L/min (60%–100%).
- Injection frusemide i.v.
- Injection morphine 10–20 mg i.v., with cyclizine or metoclopramide if vomiting.
- Angiotensin-converting-enzyme (ACE) inhibitor (captopril, lisinopril), vasodilator (isosorbide) and digoxin (in some cases).
- Treatment of primary cause.

A chest X-ray showing a large, well-defined, rounded opacity in the lower left lung field, consistent with an abscess. The rest of the lung fields appear relatively clear, though there are some faint, small opacities scattered throughout, which the text identifies as pneumatoceles. The heart and mediastinal structures are visible in the center.

**Abscess on Left side  
(Pneumatoceles=Small cysts  
in Staphylococcal and P.  
jiroveci pneumonia-not in this  
pic)**

13-8



Right upper lobe consolidation

DDx for consolidation

1. due to transudate=alveolar edema

2. exudate=pneumonia

3. proteins=proteinosis

4. cells(alveolar cell CA or lymphoma)



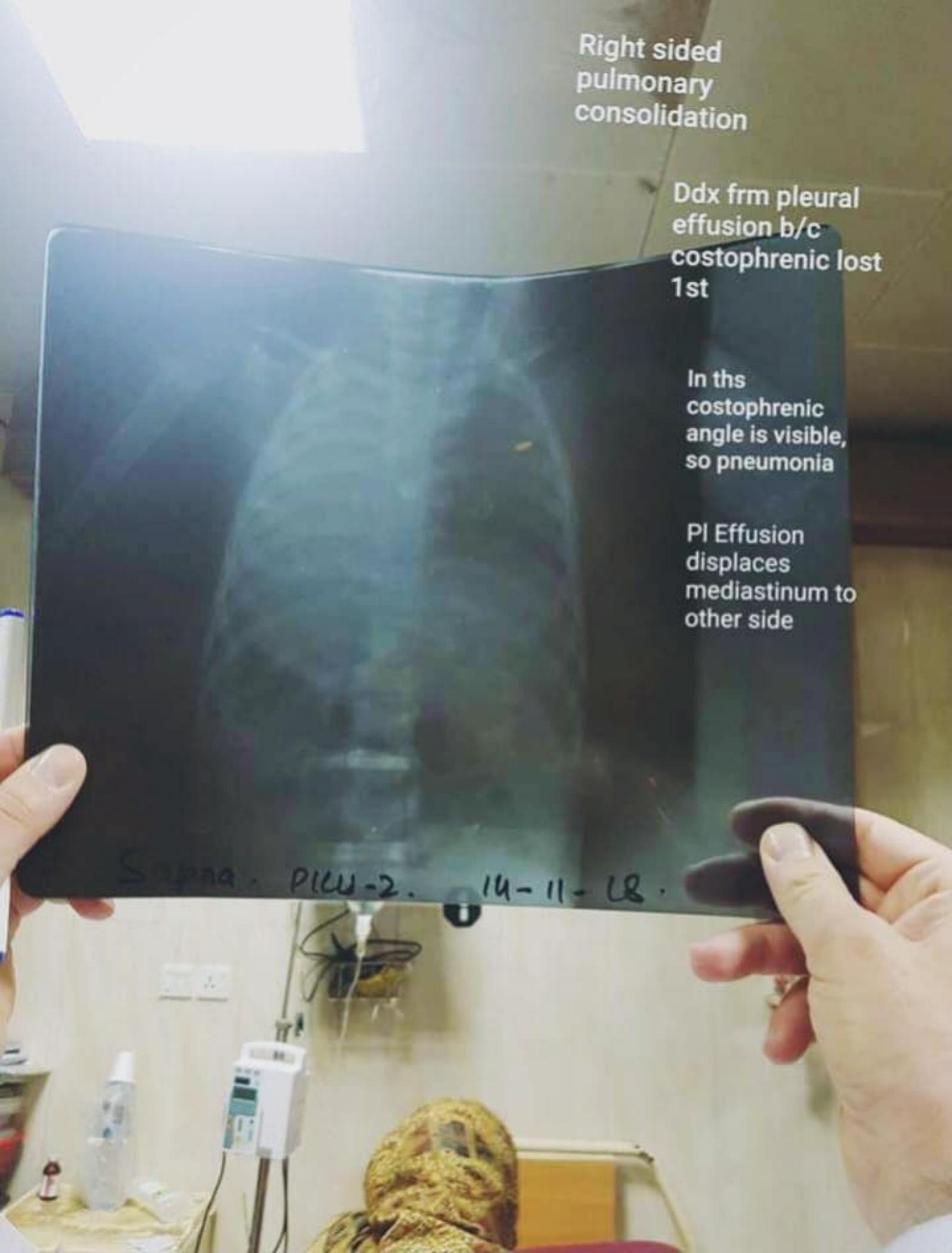
Right sided  
pulmonary  
consolidation

Ddx frm pleural  
effusion b/c  
costophrenic lost  
1st

In the  
costophrenic  
angle is visible,  
so pneumonia

Pl Effusion  
displaces  
mediastinum to  
other side

Sapna. PICU-2. 14-11-18.





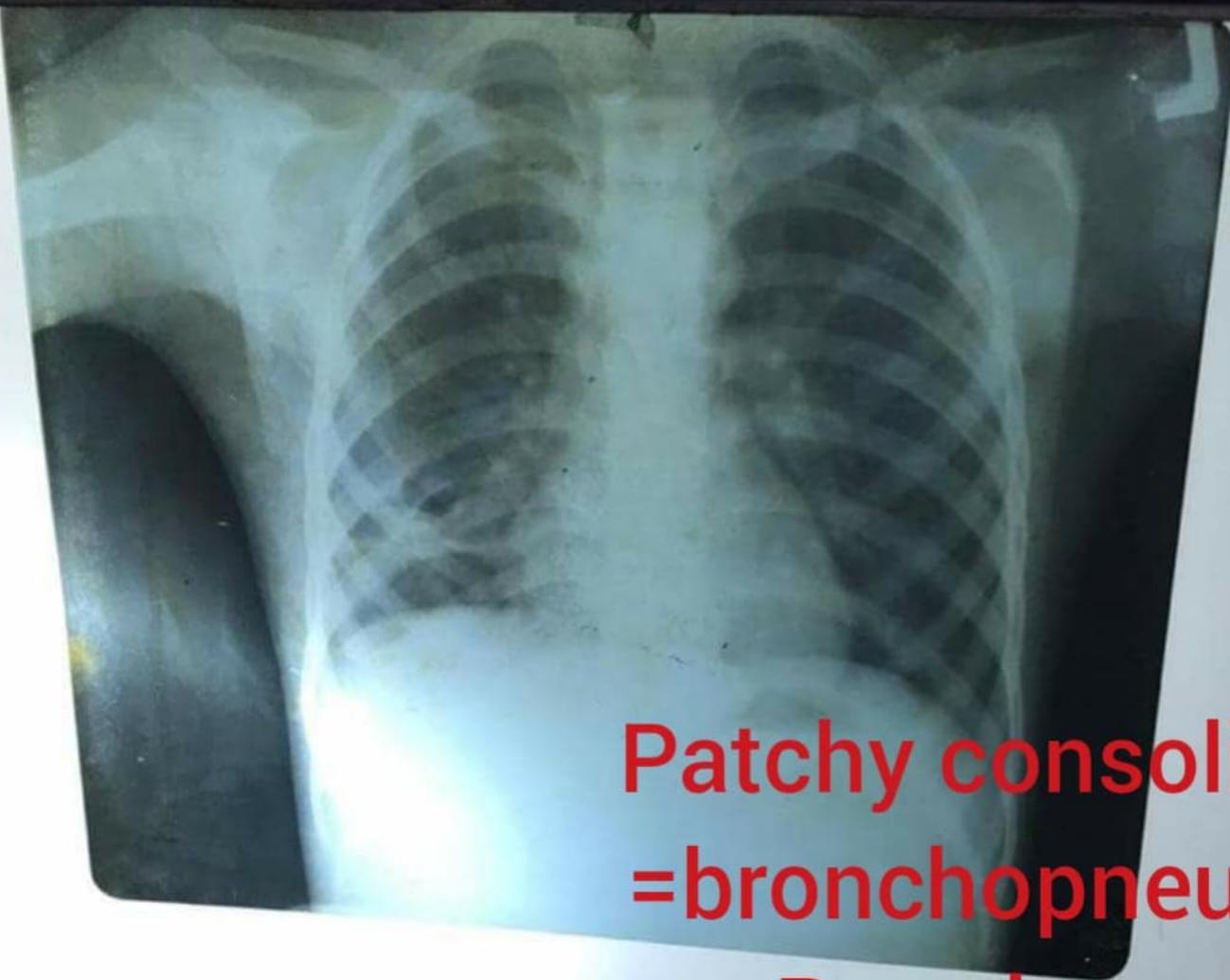
**Right lung consolidation,  
trachea central**

**-In effusion, trachea pushed  
and costophrenic angle lost**

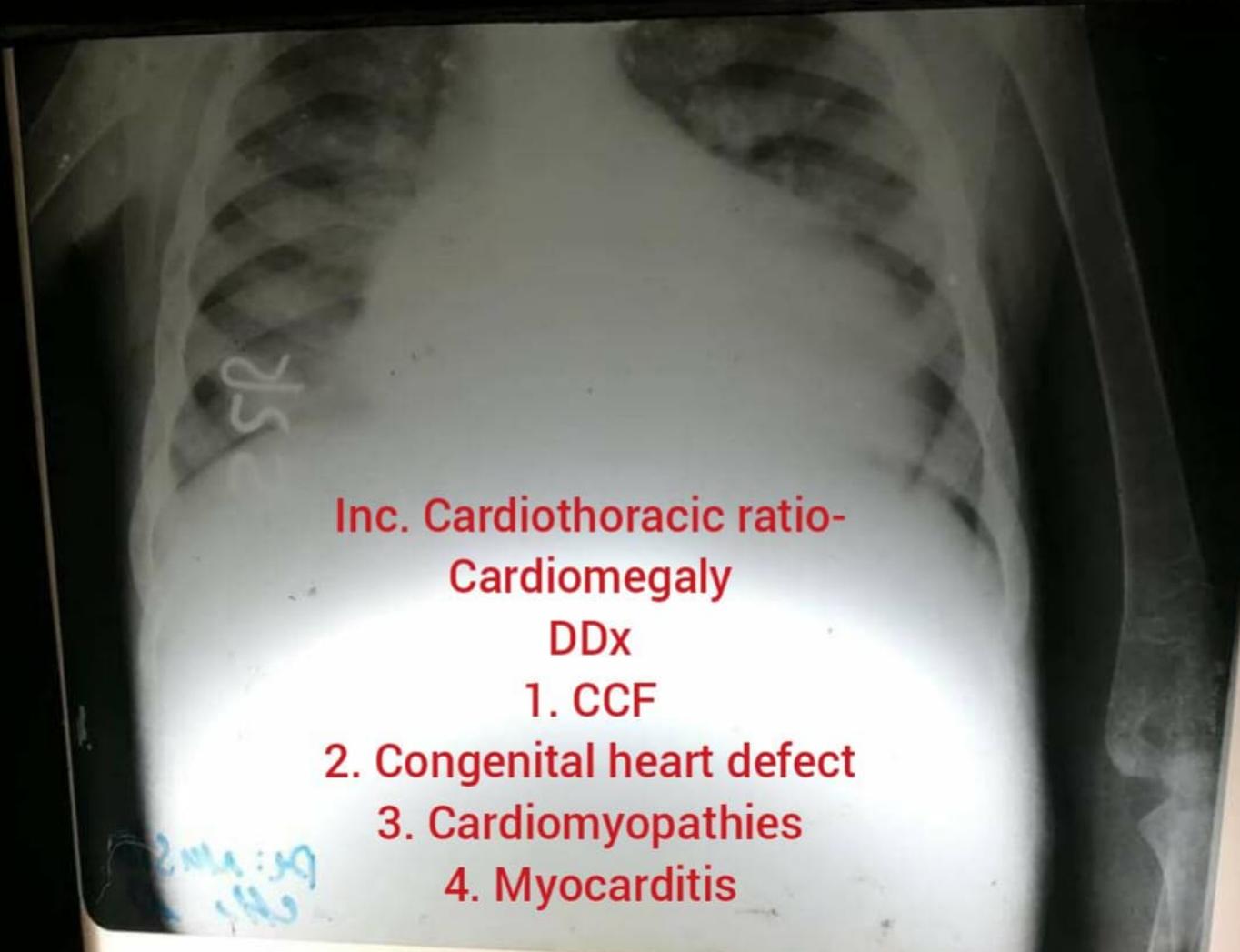
**1st**



Right pleural effusion  
Meniscus sign  
drainage tube(not clear)  
Mediastinum normal



**Patchy consolidation  
=bronchopneumonia  
-Prominent hila**

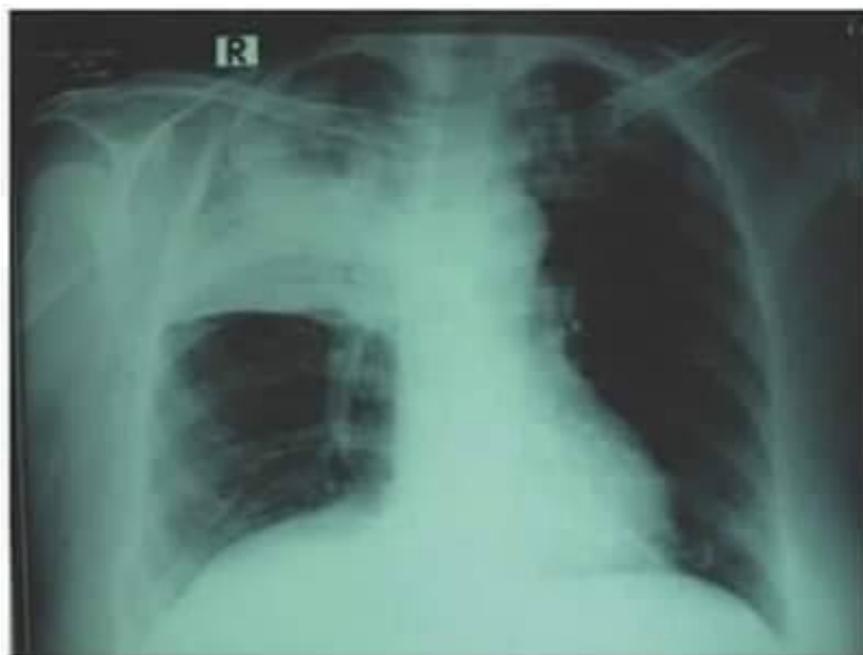


**Inc. Cardiothoracic ratio-  
Cardiomegaly**

**DDx**

- 1. CCF**
- 2. Congenital heart defect**
- 3. Cardiomyopathies**
- 4. Myocarditis**

## CONSOLIDATION



**Right-sided consolidation.**

**Q:** Write down the radiological **finding** of this X-ray.

**A:** X-ray chest PA view showing dense, homogeneous opacity involving the right upper and part of the middle zone with air bronchogram within it.

**Q:** What are the differential **diagnoses** from this X-ray?

**A:** As follows:

- Consolidation.
- Bronchial carcinoma.
- TB.

**Q:** What is the **likely diagnosis**?

**A:** Consolidation.

**Q:** Write down the **percussion and auscultation findings** of this patient.

**A:** As follows:

- Percussion note is dull (or woody dull).
- Auscultation: Bronchial breath sound, increased vocal resonance.

**Q:** Write down other **investigations** to confirm the diagnosis.

**A:** As follows:

- CBC count with ESR.
- Sputum for Gm staining, C/S.
- Sputum for AFB and malignant cells.

**Q:** Mention two **complications**?

**A:** As follows:

- Lung abscess.
- Empyema.

**Q:** What is the commonest **organism**?

**A:** Pneumococci.

## GAS UNDER THE DIAPHRAGM



**Fig. A:** Gas under the right dome of the diaphragm.

**Q:** Write down the radiological **findings** of the X-ray shown in Figure A.

**A:** X-ray chest PA view showing gas under the right dome of the diaphragm.

**Q:** What is your radiological **diagnosis**?

**A:** Perforation of gas containing the hollow viscus.

**Q:** Write down two common **causes**.

**A:** As follows:

- Perforation of chronic duodenal ulcer.
- Perforation of the ileum (as a result of typhoid, TB, Crohn disease).

**Q:** Mention one most important **clinical finding**.

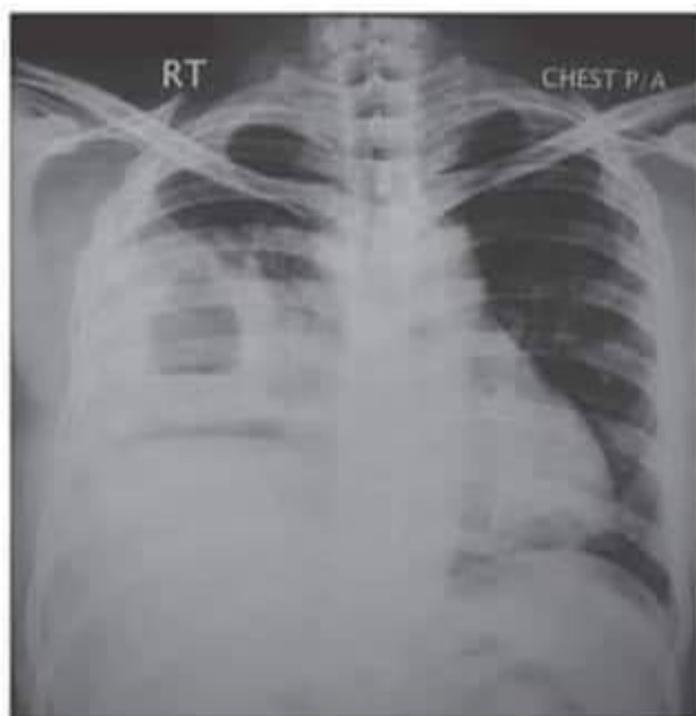
**A:** Obliteration of liver dullness on percussion.

**Q:** Write down the modalities of treatment.

**A:** As follows:

- Nothing by mouth.
- Nasogastric suction.
- Intravenous (IV) fluid.
- Broad-spectrum antibiotic with metronidazole.
- Surgical repair.

# LUNG ABSCESS



**Fig. A:** Right-sided lung abscess.

**Q:** Write down the radiological **finding** of the X-ray shown in Figure A.

**A:** X-ray chest PA view showing a cavity with air–fluid level in the right middle and lower zones.

**Q:** What is your **diagnosis**?

**A:** Right-sided lung abscess.

**Q:** Write down the **percussion and auscultation findings** of this patient.

**A:** As follows:

- Percussion note is dull (may be dull in the lower part and hyper-resonant in the upper part).
- Auscultation: Bronchial breath sound, increased vocal resonance.

**Q:** What other **investigations** will you do to confirm this diagnosis?

**A:** As follows:

- CBC count with ESR.
- CT scan of the chest.
- Sputum for Gm staining, C/S and AFB.

**Q:** Write down three important **complications**.

**A:** As follows:

- Empyema thoracis.
- Bronchiectasis.
- Cerebral abscess.

**Q:** What is the commonest **cause**?

**A:** Aspiration of an infected material as a result of any cause.



- Mediastinum pulled to right
  - Right lung Collapse consolidation and ribs crowding

## POTT DISEASE



**Pott disease.**

**Q:** Write down the radiological **finding** of this X-ray.

**A:** X-ray of dorsolumbar spine AP view showing:

- Reduction of the joint space between T6, T7 and also T8, with partial destruction of the vertebral body.
- Paravertebral shadow on both sides.
- There is marginal sclerosis.

**Q:** What is your radiological **diagnosis**?

**A:** Pott disease (TB of the spine or tuberculous spondylitis).

**Q:** Mention three **investigations**.

**A:** As follows:

- CBC count, ESR.
- X-ray chest PA view (to see the primary focus).
- Tuberculin test.
- Magnetic resonance imaging (MRI) of the thoracic spine.

**Q:** How to **confirm**?

**A:** CT or ultrasonography-guided FNAC.

## MULTIPLE MYELOMA



**Multiple myeloma.**

**Q:** Write down the radiological **finding** of this X-ray.

**A:** X-ray of the skull in lateral view showing multiple punched-out lytic lesions of variable sizes and shapes all over the skull.

**Q:** What is the most likely **diagnosis**?

**A:** Multiple myeloma.

**Q:** Write two important **differential** diagnoses.

**A:** As follows:

- Secondary deposit.
- Hyperparathyroidism.

**Q:** Name other investigations to **confirm** the diagnosis.

**A:** As follows:

- CBC count with ESR with peripheral blood film (PBF) (shows high ESR with a marked rouleaux formation).
- Bone marrow examination (shows atypical plasma cells).
- Plasma protein electrophoresis (shows M-band).
- Serum immunoelectrophoresis.
- Urine for Bence–Jones protein.

## BRONCHIECTASIS



Fig. A: Bilateral bronchiectasis.

Q: Write down the radiological **findings** of the X-ray shown in Figure A.

A: X-ray chest PA view showing multiple ring shadows involving the middle and lower zones of both lung fields, more on the right side.

Q: What is your radiological **diagnosis**?

A: Bilateral bronchiectasis

Q: What is the **likely cause** in this disease?

A: Cystic fibrosis.

Q: Write down **one investigation** to confirm the diagnosis.

A: HRCT of the chest.



Fig. B: Right-sided bronchiectasis.



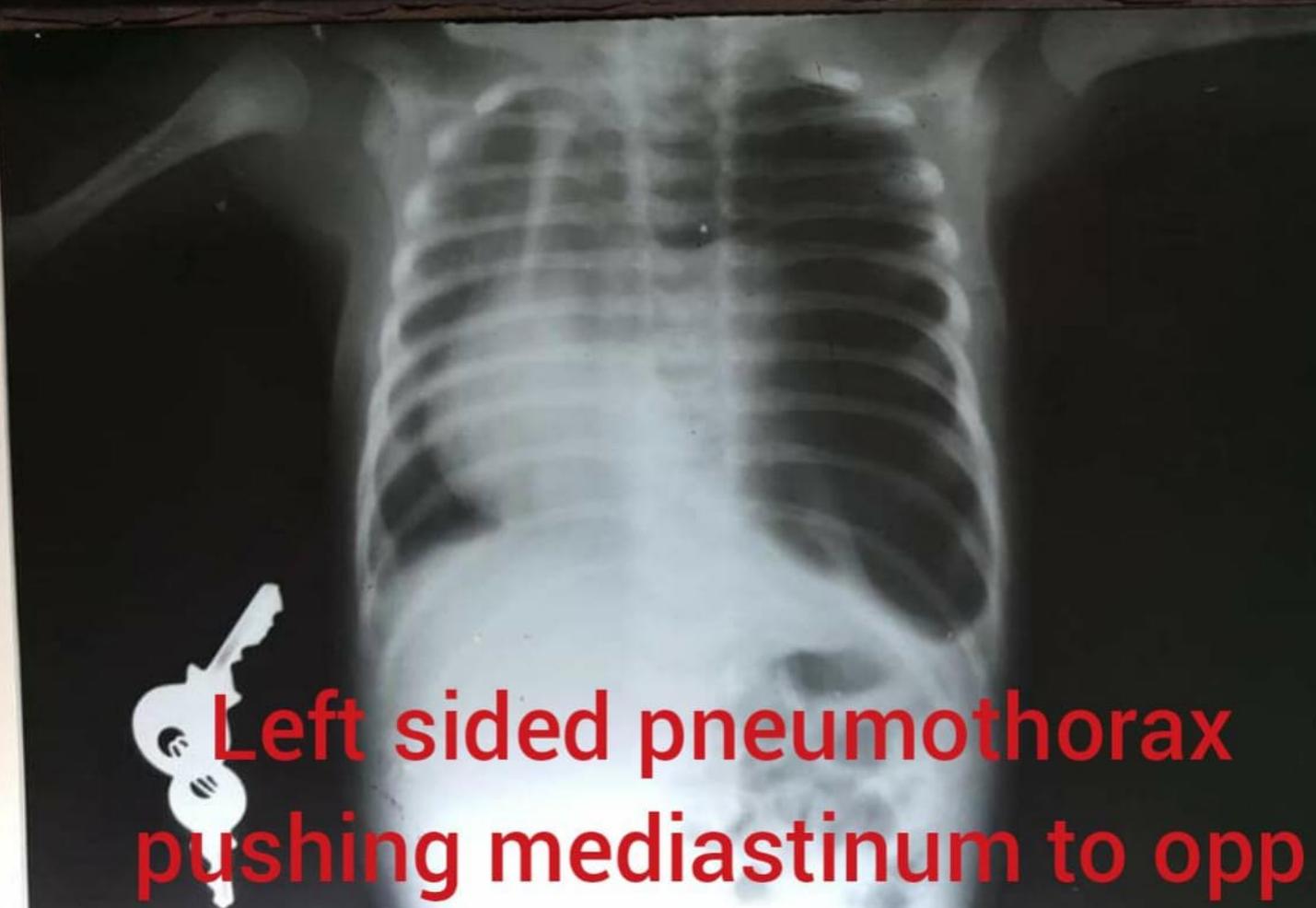
Boot shaped heart, aortic  
knuckle on right side, lungs  
oligaemic i.e dec. vascularity  
(tetralogy of Fallot)  
VSD, Overriding aorta, Rt  
ventricle hypertrophy,  
pulmonary stenosis (pink  
tetralogy)

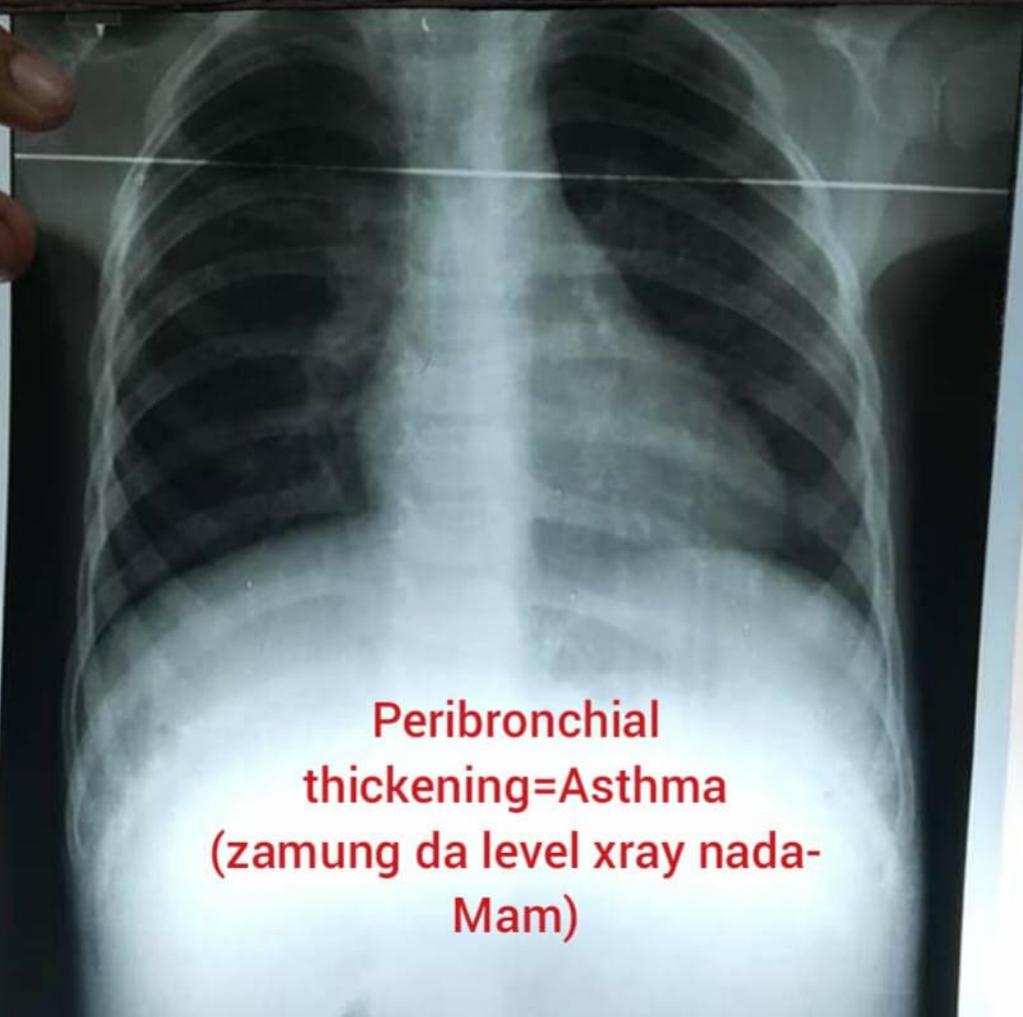


**Right Sided Patchy  
Consolidation  
= Most probably  
Bronchopneumonia**



**Left sided pneumothorax  
pushing mediastinum to opp**





**Peribronchial  
thickening=Asthma  
(zamung da level xray nada-  
Mam)**

**Cardiomegaly(wall to wall)**

**=Ebstein's anomaly**

**DDx for cardiomegaly:**

**CCF, Congenital heart defect,**

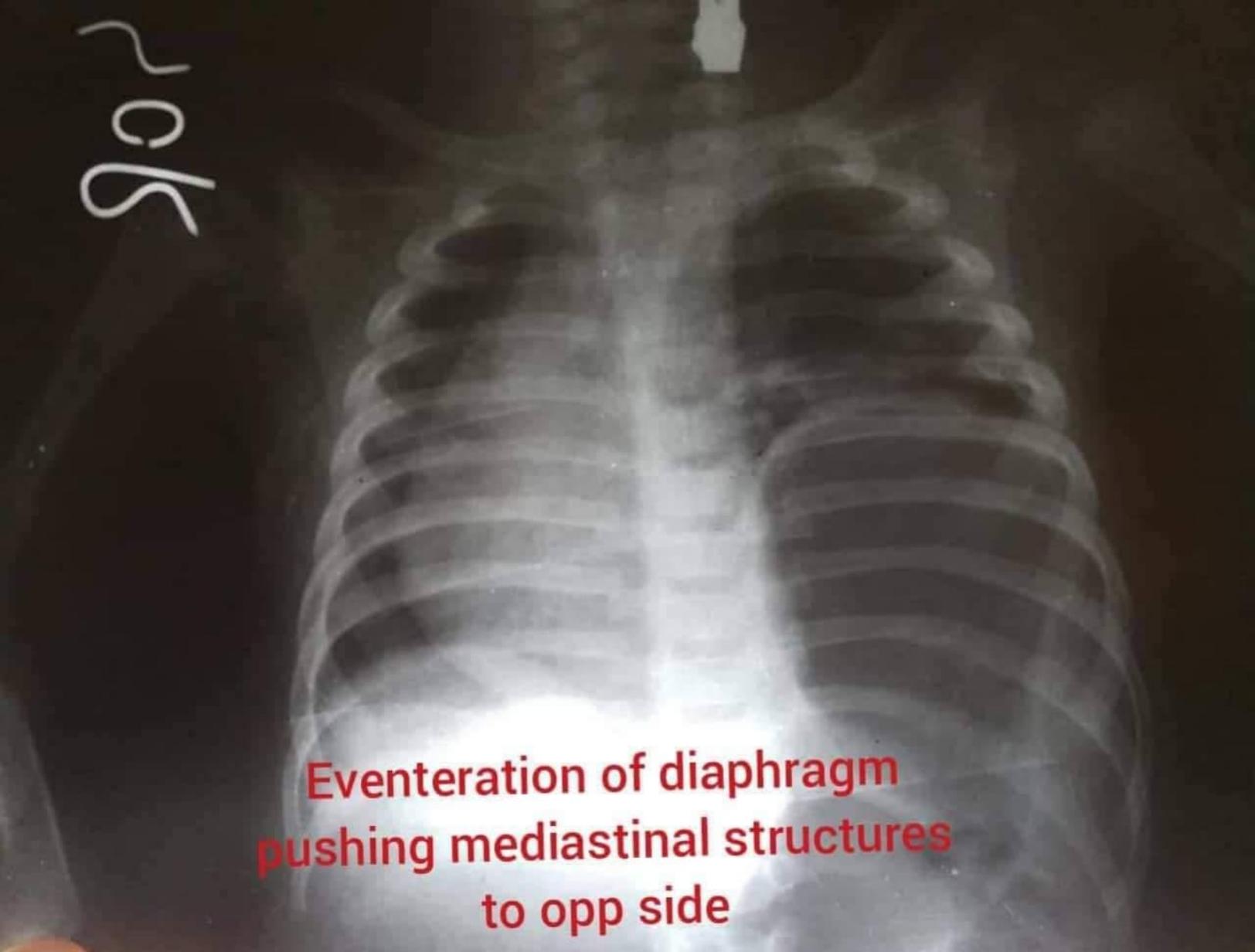
**Cardiomyopathies, Myocarditis**





**Right upper and middle lobe  
patchy consolidation:  
Brochopneumonia  
-prominent hila**

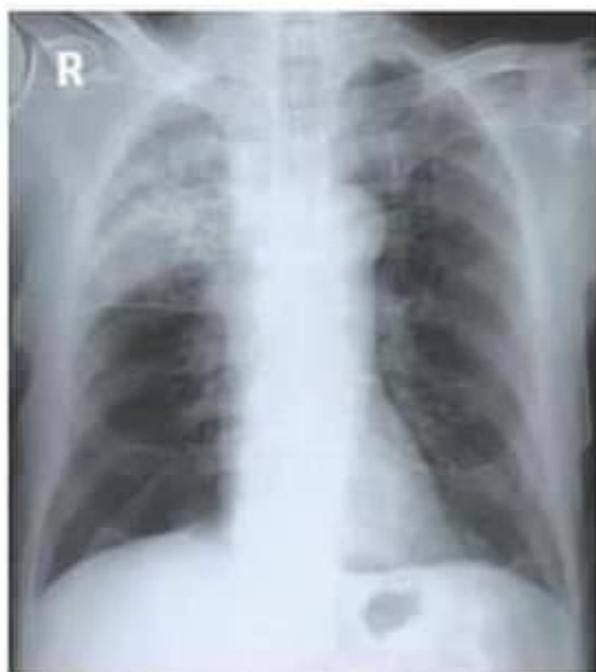
206



A frontal chest X-ray showing the rib cage and mediastinal structures. The diaphragm is abnormally high on the right side, which is characteristic of eventration. This elevation pushes the mediastinal structures, including the heart and major vessels, towards the left side of the patient. The text '206' is written in the top left corner, and a red text box at the bottom explains the finding.

Eventration of diaphragm  
pushing mediastinal structures  
to opp side

# PULMONARY TUBERCULOSIS



**Fig. A:** Right-sided pulmonary TB.

**Q:** Write down the radiological **finding** of the X-ray shown in Figure A.

**A:** X-ray chest PA view showing patchy opacities with some translucent shadows within it involving the right upper and part of the middle zone.

**Q:** What is the radiological **diagnosis**?

**A:** Right-sided pulmonary TB.

**Q:** Write down other **investigations** to confirm the diagnosis.

**A:** As follows:

- CBC count with ESR.
- Sputum for AFB staining (three consecutive samples).
- Tuberculin test.
- PCR for TB.

**Q:** How to **treat**?

**A:** Standard anti-TB therapy for 6 months in the following regimen:

- Initial phase (2 months): Isoniazid (INH) + rifampicin + pyrazinamide + ethambutol.
- Continuation phase (4 months): INH + rifampicin.
- Tab. pyridoxine (20 mg) for 6 months.

**Q:** Mention one **complication** of each drug.

**A:** As follows:

- Rifampicin: Hepatitis.
- INH: Peripheral neuropathy.
- Ethambutol: Optic neuritis.
- Pyrazinamide: Hepatitis (also hyperuricaemia and gout).

# RIB RESECTION



**Rib resection.**

**Q:** Write down the radiological **findings** in this X-ray.

**A:** X-ray chest PA view showing:

- There is rib resection on the left side.
- Homogeneous opacity with air–fluid level involving the left lower and part of the middle zone. The rest of the left lung field shows hypertranslucency.
- Left costophrenic and cardiophrenic angles are obscure.
- Trachea and heart are shifted to the left.
- The right lung field shows compensatory hypertranslucency.

**Q:** What is your radiological **diagnosis**?

**A:** Pneumonectomy of the left lung.

**Q:** Mention five **indications**.

**A:** As follows:

- Bronchial carcinoma (if localized).
- Bronchial adenoma.
- Extensive bronchiectasis.
- Extensive fibrosis with repeated chest infection.
- In some cases of TB (multidrug-resistant TB [MDR-TB] or no response to the drug).



investigations:  
Ca, ALP, Phosphorus, PTH, Vit D



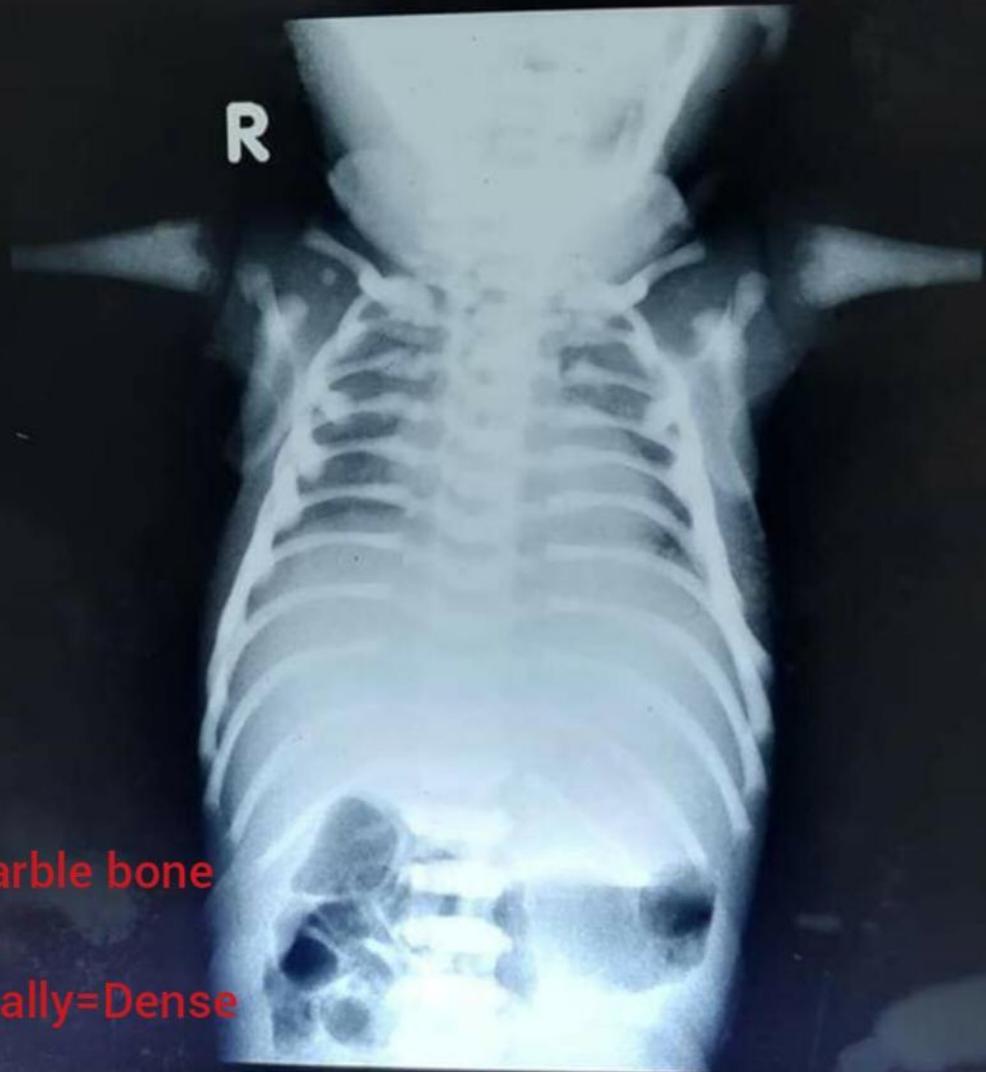
**Xray left wrist joint  
=Rickets**

- 1. Osteopenic bones(decreased density)**
- 2. Cupping of radius ends**
- 3. Fraying(zigzag ends)**
- 4. Flaying(broad ends)**





**Right upper and lower lobe  
consolidation**



Osteopetrosis=marble bone disease

-Full body xray usually=Dense bones

## PERICARDIAL CALCIFICATION



**Fig. A:** Pericardial calcification.

**Q:** Write down the radiological **finding** of the X-ray shown in Figure A.

**A:** X-ray chest PA view showing:

- Calcified shadow at the left and lower border of the heart.
- Heart is enlarged in the transverse diameter.

**Q:** What is your radiological **diagnosis**?

**A:** Pericardial calcification.

**Q:** What is the **clinical diagnosis**?

**A:** Chronic constrictive pericarditis.

**Q:** Mention three **causes**.

**A:** As follows:

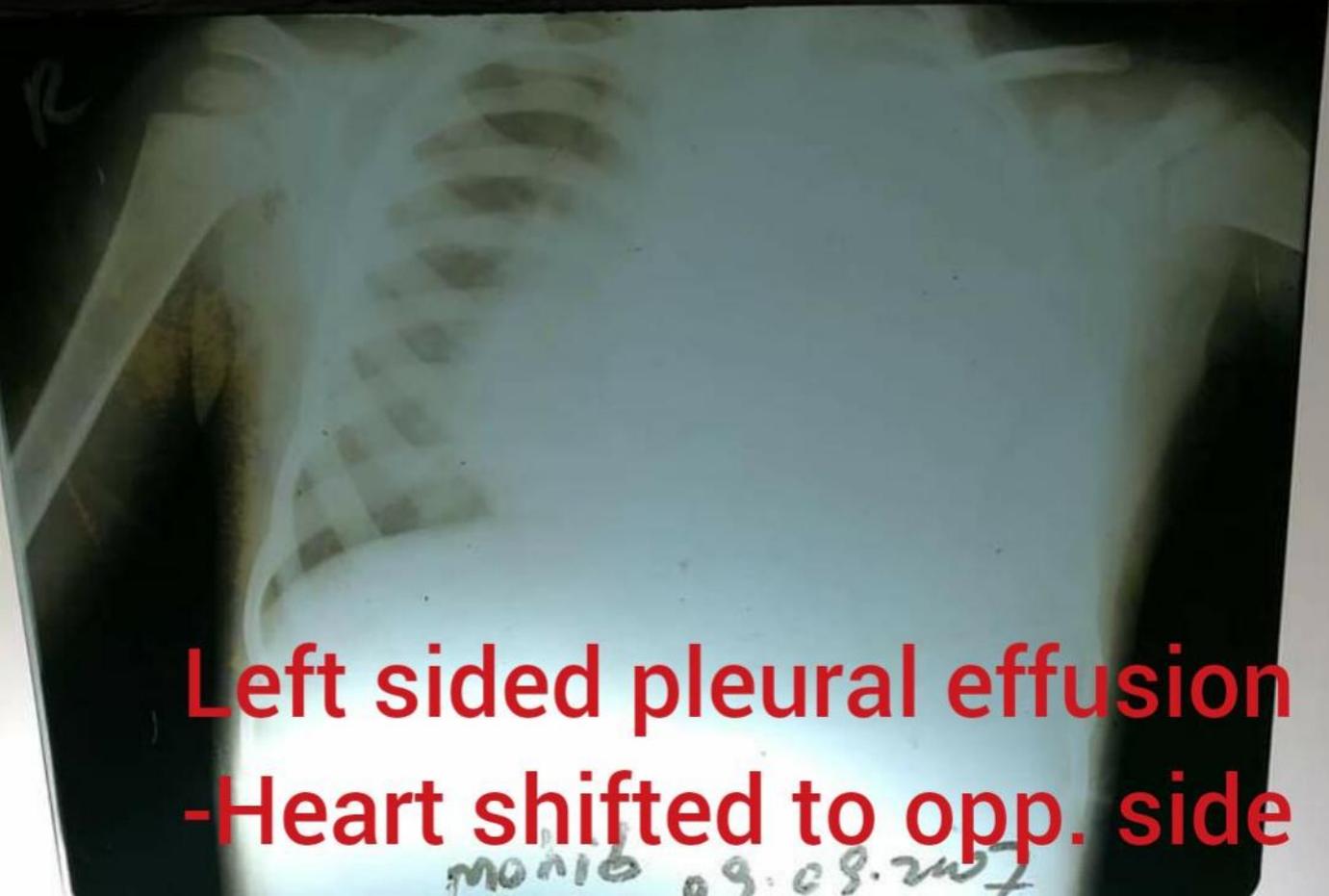
- TB.
- Hypercalcaemia as a result of any cause.
- Haemopericardium.

**Q:** Write down the radiological **finding** of the X-ray shown in Figure B.

**A:** X-ray chest left lateral view showing flecks of calcification in the pericardium at the inferior and anterior borders.

**Q:** What is your radiological **diagnosis**?

**A:** Pericardial calcification.



**Left sided pleural effusion**  
**-Heart shifted to opp. side**



- Mediastinal structures pulled to left
- Rib crowding
- Left lung collapse consolidation

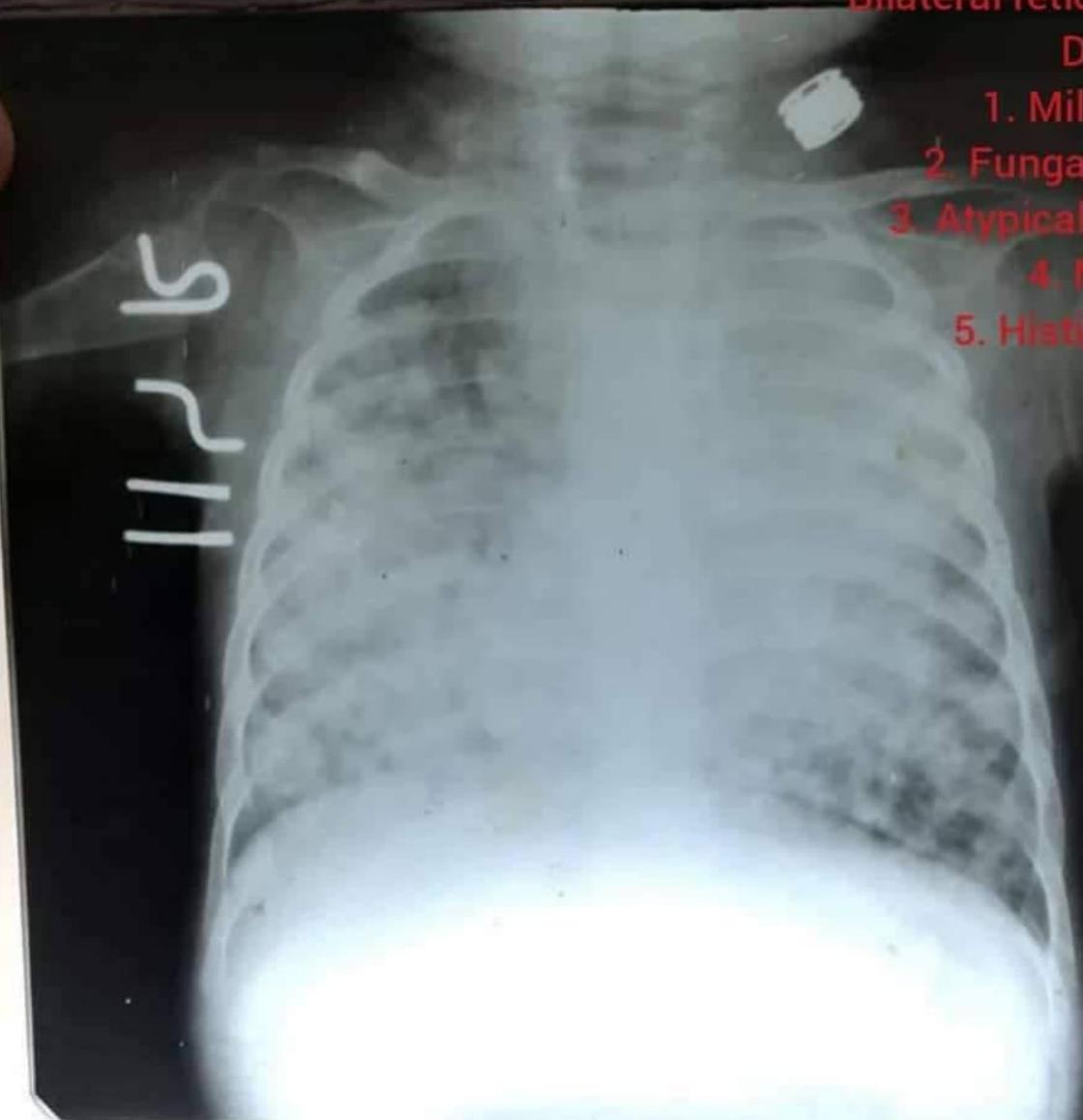


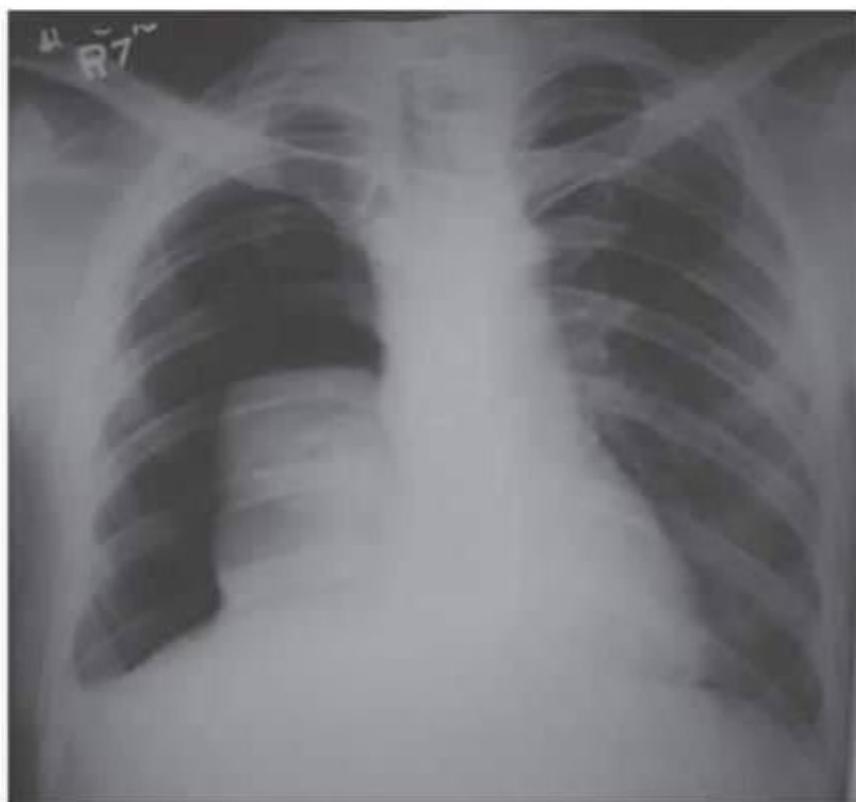
Trachea central  
angles obliterated  
=Right sided consolidation

Bilateral reticular opacities

DDx

1. Miliary TB
2. Fungal infection
3. Atypical pneumonia
4. Mets
5. Histiocytosis





**Fig. A:** Right-sided pneumothorax.

**Q:** Write down the radiological **findings** of the X-ray shown in Figure A.

**A:** X-ray chest PA view showing a hypertranslucent area without bronchovascular markings with collapsed lung margin on the right side.

**Q:** What is the radiological **diagnosis**?

**A:** Right-sided pneumothorax.

**Q:** What is the **type**?

**A:** Closed.

**Q:** Write down the **findings** in percussion and auscultation.

**A:** As follows:

- Percussion note is hyper-resonant on the left side.
- On auscultation: Diminished (or absent) breath sound and diminished (or absent) vocal resonance on the left side.

**Q:** Write down three common **causes**.

**A:** As follows:

- Rupture of subpleural emphysematous bullae.
- Rupture of subpleural tuberculous focus.
- Rupture of subpleural bleb in young patients.

## MITRAL STENOSIS



**Fig. A:** Mitral stenosis.

**Q:** Write down the radiological **finding** of the X-ray shown in Figure A.

**A:** X-ray chest PA view showing fullness of the pulmonary conus with straightening of the left border of the heart.

**Q:** What is your radiological **diagnosis**?

**A:** Mitral stenosis.

**Q:** Mention four important radiological **findings that may be present** in this disease.

**A:** As follows:

- Widening of the carina with horizontal left main bronchus.
- Double contour of the right border of the heart.
- Upper lobe diversion.
- Kerley B line.

**Q:** Mention one **investigation** to confirm your diagnosis.

**A:** Colour Doppler echocardiography.

**Q:** Mention two **complications**.

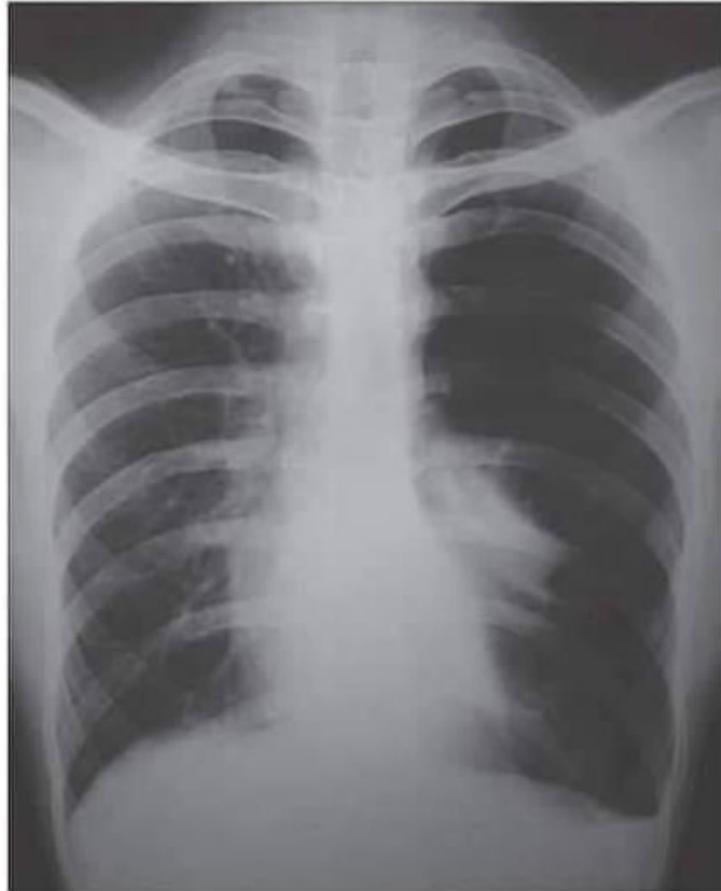
**A:** As follows:

- Congestive cardiac failure (CCF).
- Atrial fibrillation.

**Q:** Write down the **principle of management** of this patient.

**A:** As follows:

- If small and asymptomatic: Complete rest and follow-up.
- If large: Intercostal chest tube drainage (or water seal drainage).
- Treatment of the underlying cause.



**Fig. B:** Left-sided pneumothorax.

**Q:** Write down the radiological **findings** of the X-ray shown in Figure B.

**A:** X-ray chest PA view showing a hypertranslucent area without bronchovascular markings with collapsed lung margin on the left side.

**Q:** What is the radiological **diagnosis**?

**A:** Left-sided pneumothorax.

# EMPHYSEMA



**Emphysema.**

**Q:** Write down the radiological **finding** of this X-ray.

**A:** CXR PA view showing:

- Lung fields are hypertranslucent.
- Low and flat diaphragm.
- Heart is elongated and tubular.
- Ribs are widely spaced.

**Q:** What is your radiological **diagnosis**?

**A:** Pulmonary emphysema.

**Q:** What is the **pathognomonic sign** in the CXR of this disease?

**A:** Bullae.

**Q:** Mention two **investigations**.

**A:** As follows:

- Lung function tests (obstructive type: Forced expiratory volume in 1 second [ $FEV_1$ ] and forced vital capacity [FVC] are reduced and the ratio of  $FEV_1:FVC$  is also reduced).
- High-resolution computed tomography (HRCT) of the chest.



decreased cardiothoracic ratio  
=constrictive pericarditis=TB  
(zamung da level xray  
nada=Mam)

W: A2U1/V0225WUWZ  
ACC:

Date: 2/25/2017  
Time: 10:17:41

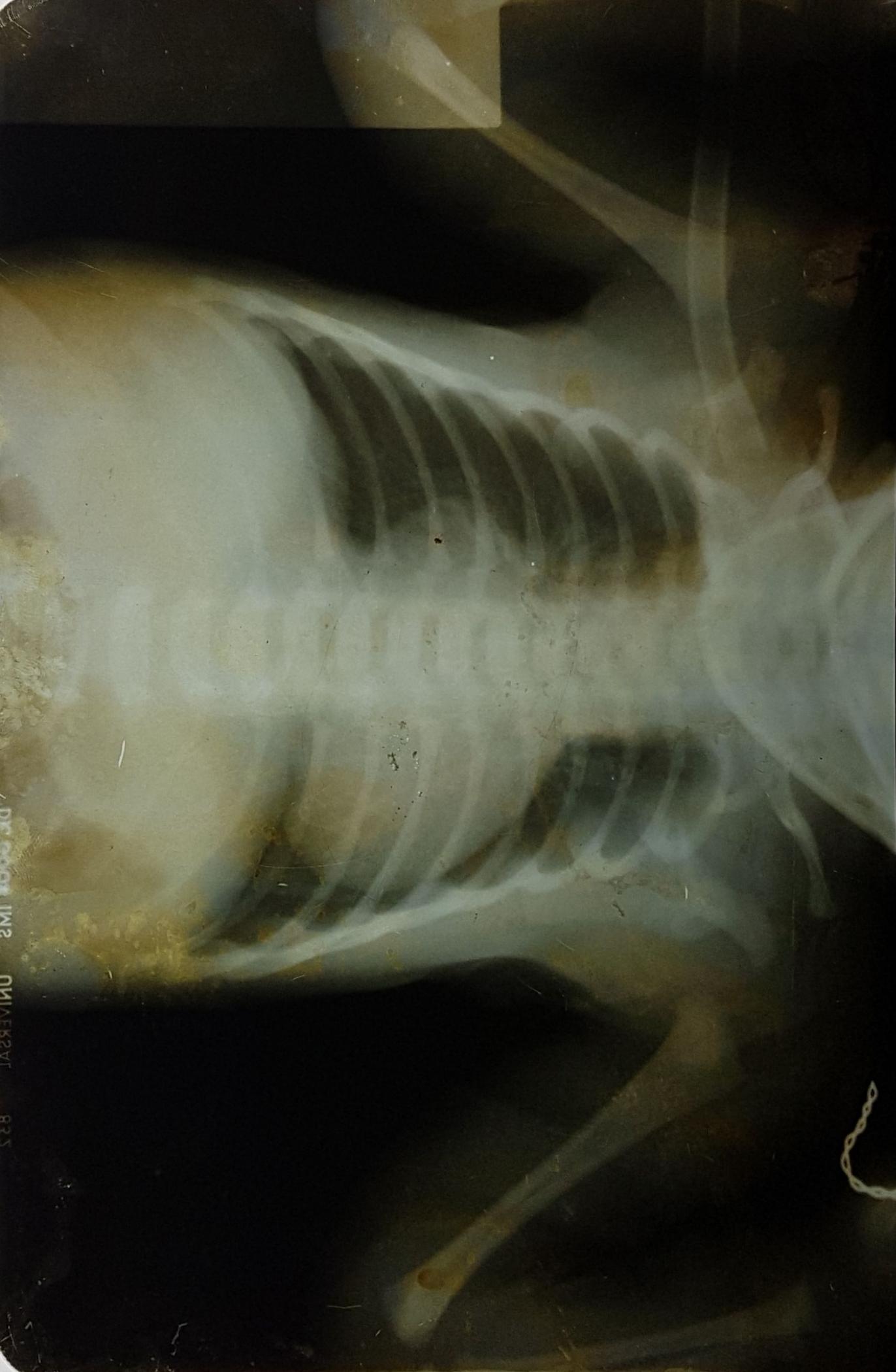


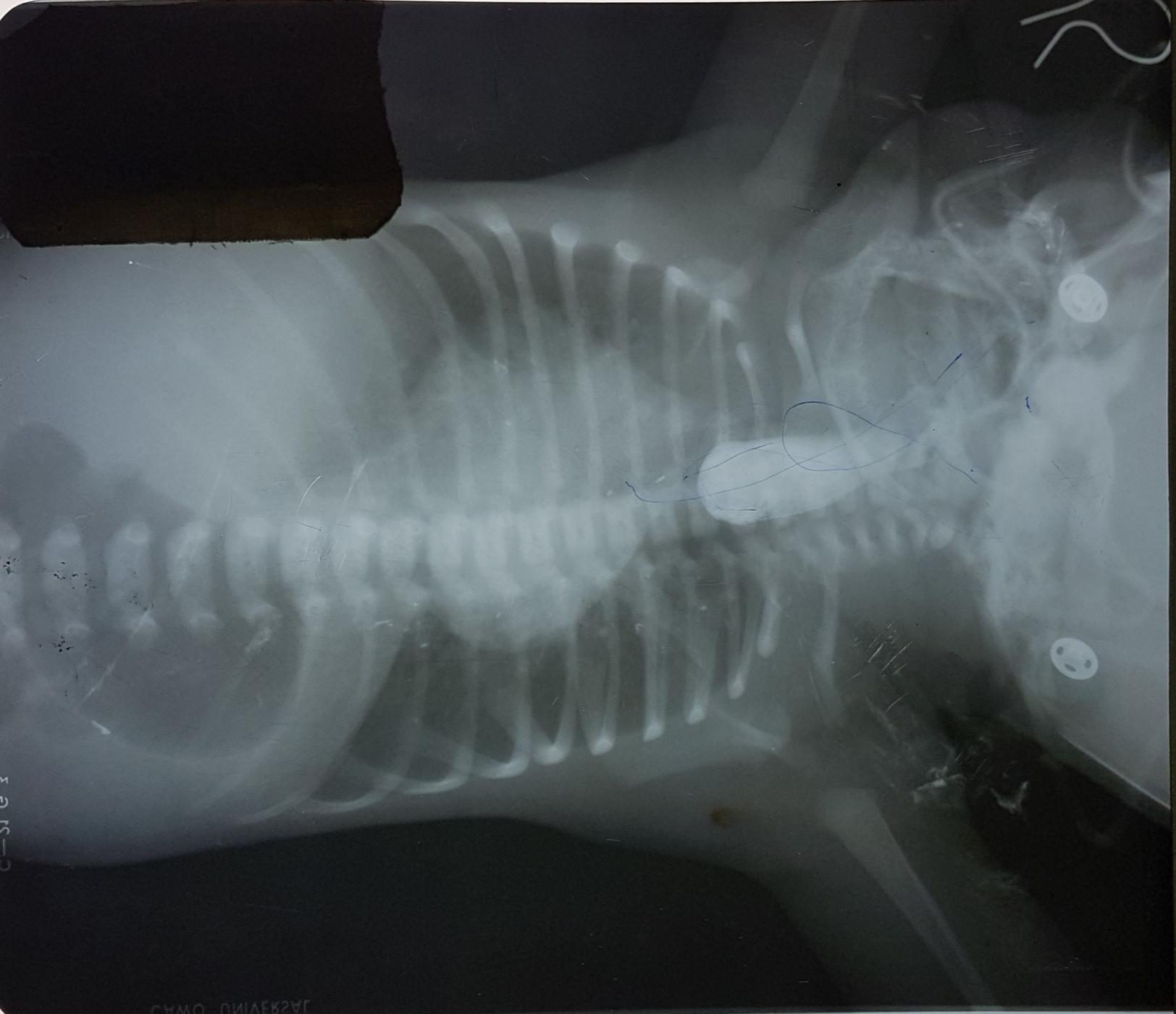
4cm

W846 / C530  
Sensitivity: 113  
Plate: a4000008c  
S-Value: 113

CHEST  
1 IMA 1  
Zoom factor: 1.63

DR. SCOTT LIMS  
UNIVERSAL  
R 2 2





C-31 3

CAMA ONI/ER2AL