



# Radiology

## Chest Radiograph Interpretation

“WHERE THE ART OF MEDICINE IS LOVED, THERE IS ALSO LOVE FOR HUMANITY.”

*HIPPOCRATES*



**DR. KHALEEL [MD Radiodiagnosis]**



**Dr. Khaleel Ahmed**  
**MD Radiodiagnosis**  
Director  
Arise Medical Academy

**Connect with  
Dr. Khaleel**



**DRKHALEEL999**

## KNOW YOUR MENTOR!

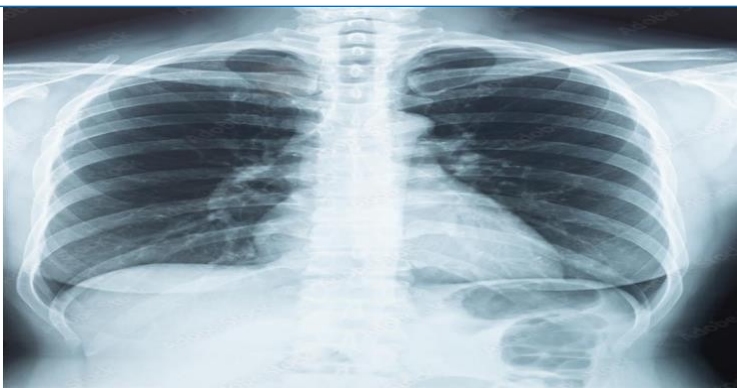
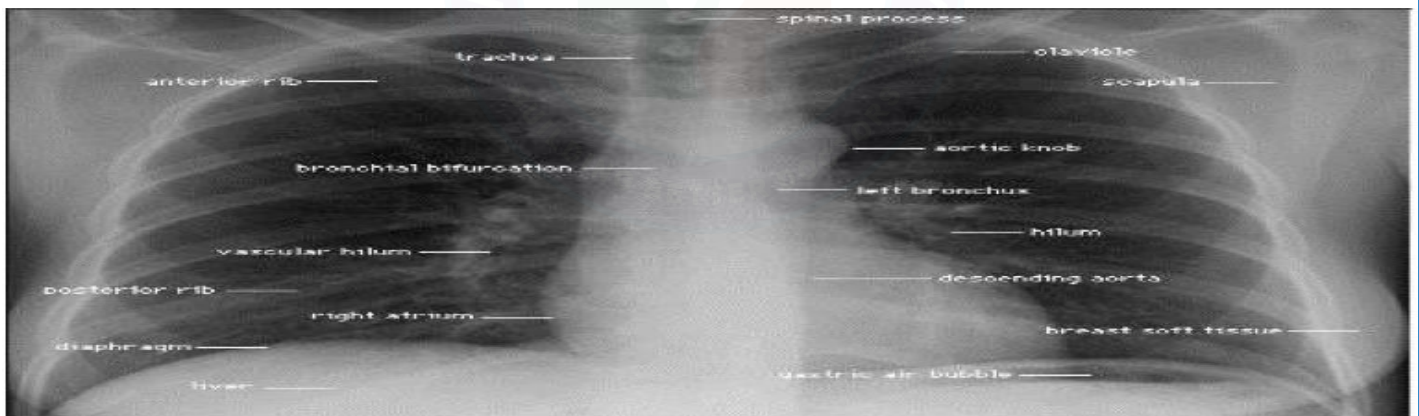
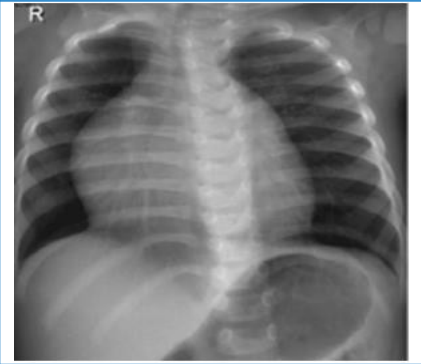
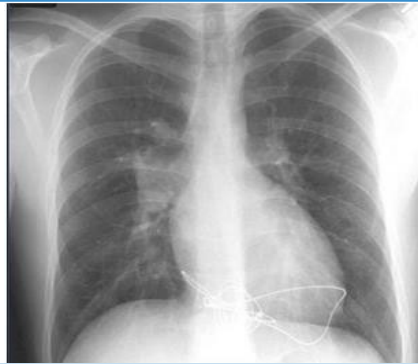
For Medical students aspiring to excel in radiology one name stands out as a beacon of knowledge and expertise: **Dr. Khaleel Ahmed.**

A Nationally renowned **Radiology Faculty** and director of the Prestigious Arise Medical Academy.

His Passion for teaching and Commitment to empowering medical graduates for past 15 years have solidified his position as a revered educator. He has been an elite National faculty for the training of medical students for different exams like NEETPG, INICET, NEXT, FMGE.

As a director of the Arise Medical Academy, Dr. Khaleel Ahmed's contributions have and will continue to shape the future of Foreign Medical Graduates, ensuring they are equipped with the knowledge and confidence to make a difference in the world of medicine.

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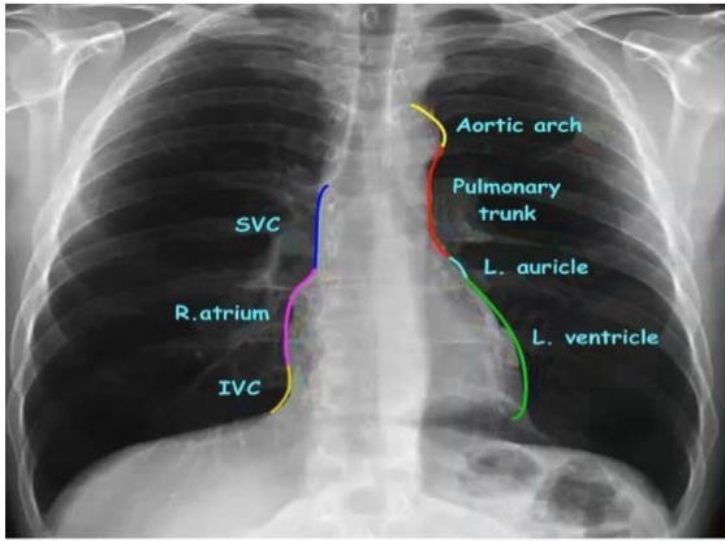
Posterior ribs - horizontal  
Anterior ribs - oblique



Dextrocardia



Dextrocardia with situs Inversus → Kartagener syndrome



Most anterior chamber of heart- RV  
Most posterior chamber of heart - LA

Right heart border is NOT formed by- RV  
LT heart border is NOT formed by - LA

**Volume gain**

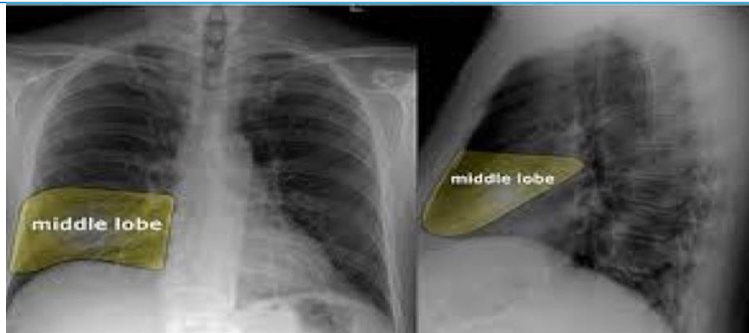
Pneumothorax  
Massive pleural effusion  
↓  
Trachea shifts to opposite side

**Volume loss**

Atelectasis,  
Collapse,  
Pneumonectomy  
↓  
Trachea shifts to same side

**No net change in volume**

↓  
Consolidation /  
Pneumonia  
↓  
No tracheal shift



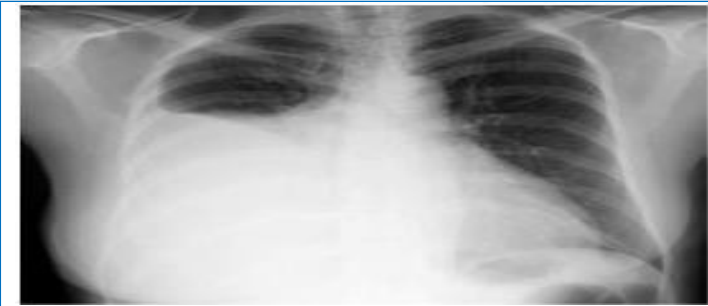
Rt middle lobe is in close contact with Rt heart border and overlaps cardiac shadow

### CXR findings of Pneumonia / consolidation



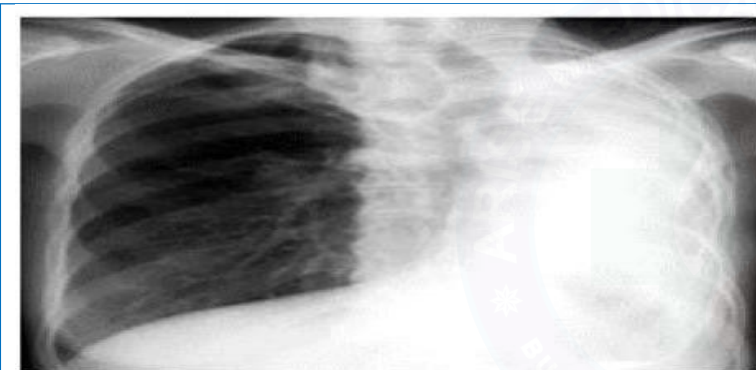
- No tracheal shift
- Ill defined
- Fluffy borders
- air bronchogram

### CXR findings of pleural effusion



- Meniscus sign
- Ellis curve
- Concave upward curve
- Obliteration of costophrenic angle

### CXR findings of lung collapse



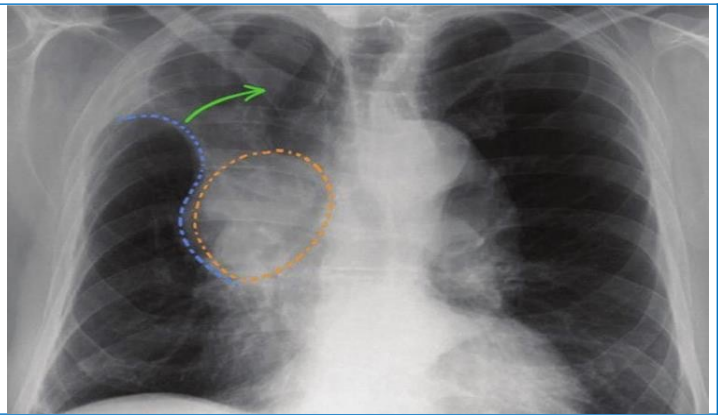
- Trachea and mediastinum shifts to
- Same side
- Bronchial cut off
- Crowding of ribs

Lobar Collapse → Sharp margins

### Causes of Air bronchogram



- Consolidation/pneumonia
- Pulmonary edema
- ARDS/HMD
- broncho alveolar Ca



**Golden S sign.** → Bronchogenic Ca with Rt upper lobe collapse

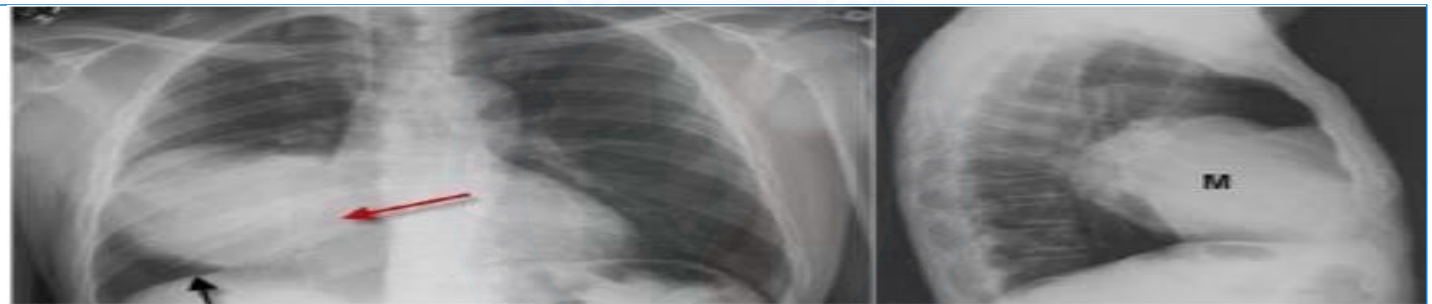
→ Silhouette sign

Rt heart border is obscured by RML Pathology

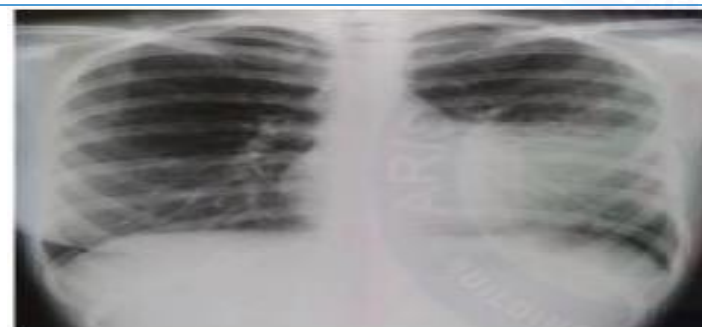
Lt heart border is obscured by lingular pathology

Hemidiaphragms are obscured by LL pathologies

Aortic knuckle is obscured by Lt apico posterior pathology



Silhouetting of Rt heart border - RML pathology



Silhouetting of Lt heart border - Lingular Pathology

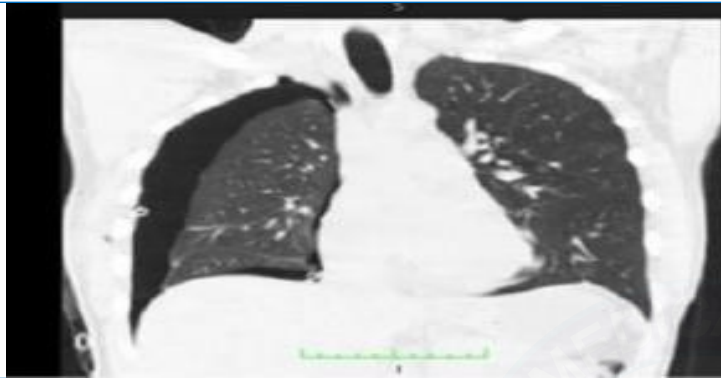


**LUFTSICHEL sign**-Lt upper lobe collapse

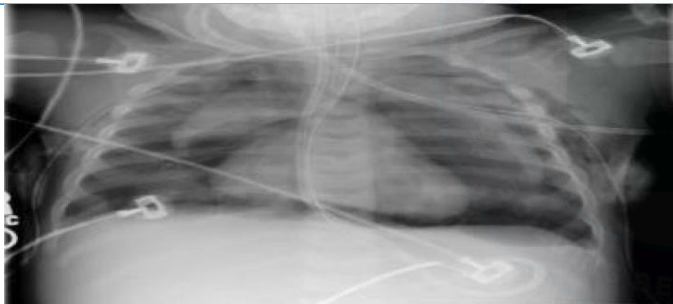
Sickle is formed by compensatory hyperinflation of superior segment of Lt lower lobe



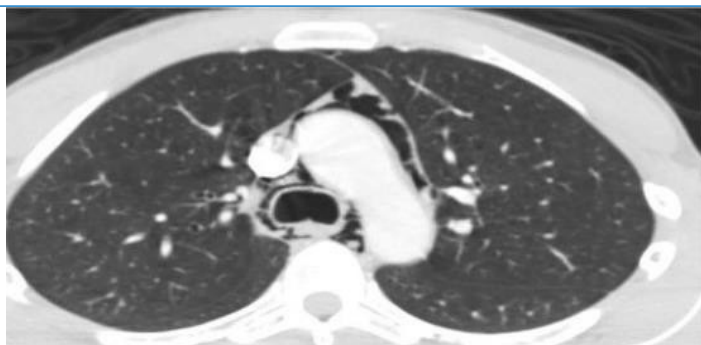
CXR findings of pneumothorax  
 ↓  
 Absent bronchovascular markings  
 Visceral pleural line  
 Deep sulcus sign(supine CXR)



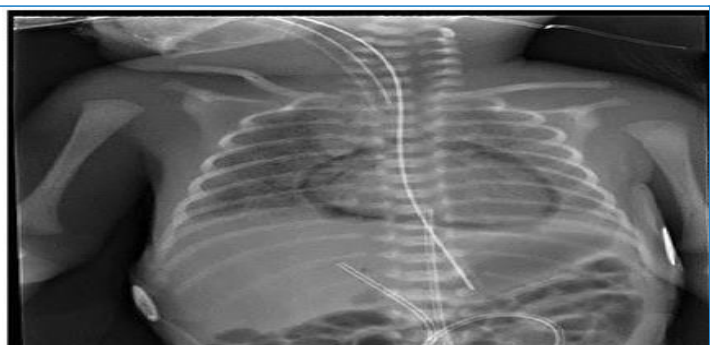
Pneumothorax



CXR findings of pneumomediastinum  
 → Spinnaker Sign (Angel wing sign)  
 continuous diaphragm Sign.  
 Pneumomediastinum air around  
 aorta, PA, bronchus, trachea  
 •Boerrharve Syndrome - Esophageal  
 perforation causing Pneumomediastinum  
 Naclerios V sign  
 → Thymic Sail sign -normal



Pneumomediastinum



Pneumopericardium



Air under Rt hemidiaphragm → hollow viscus perforation / pneumoperitoneum

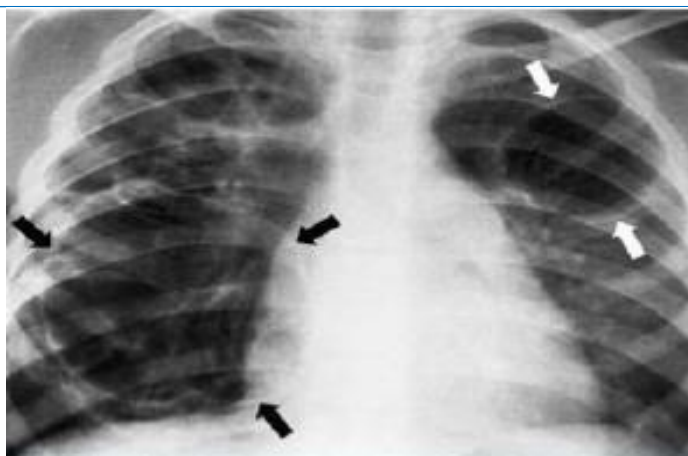
Rx → I.V fluids + Emergency laprotomy



Rt pleural effusion



Horizontal air fluid level → Hydropneumothorax



Hospitalised child with fever and cough

↓

Pneumatoceles → M.C → Staph Aureus



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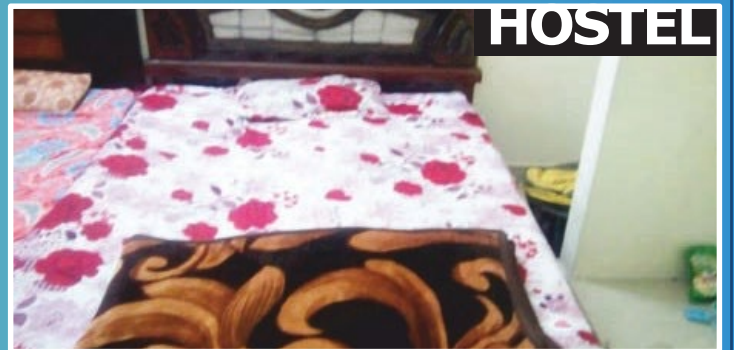


## ARISE JAIPUR

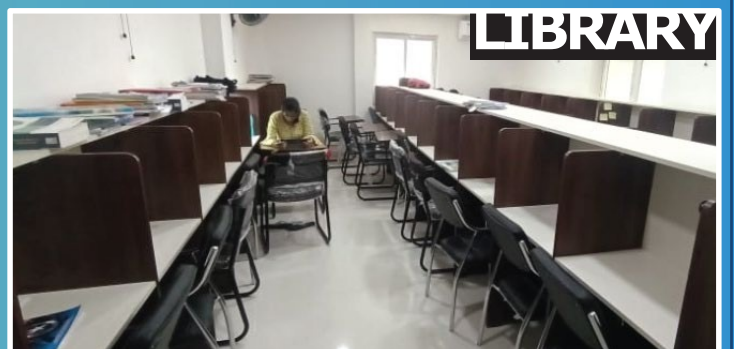


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