QUICK REFERENCE GUIDE

RADIOLOGY & IMAGING

Easy to Diagnose, Easy to Learn



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X-ray

RESPIRATORY SYSTEM:



NORMAL CXR P/A VEIW

Findings:

CXR PA view showing:

- · Lung fields are clear on both sides
- · Trachea is central in position or slightly deviated to the right
- · Both domes of diaphragm are normal in position
- · Costophrenic and cardio-phrenic angles are clear on both sides
- The heart is normal in transverse diameter
- · Bony configuration is normal

Dx: Normal CXR



CERVICAL RIB

CXR PA view showing:

 Unusual shadow arising from both sides of seventh cervical vertebrae resembling ribs

Dx: Bilateral Cervical Rib





SITUS INVERSUS

CXR PA view showing:

- · Apex of the heart on the right side
- · Left dome of the diaphragm is elevated

Dx: Situs Inversus





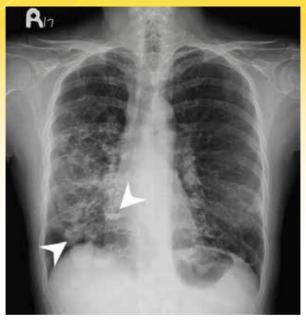
COPD

CXR PA view showing:

- · Lung fields are hyper-translucent
- · Low and flat diaphragm
- · Heart is elongated and tubular
- · Ribs are widely spaced
- · Blood vessels are less prominent

Dx: COPD



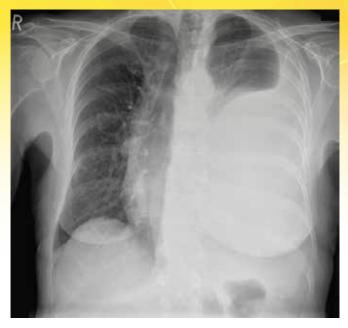


BRONCHIECTESIS

CXR PA view showing:

• Multiple ring-like translucent shadows involving the mid & lower zone of right lung

Dx: Bronchiectasis



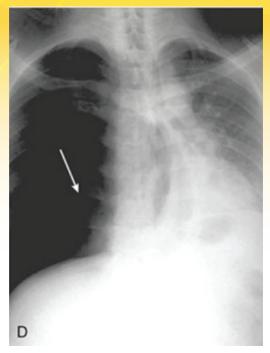
PLEURAL EFFUSION (Left sided massive)

CXR PA view showing:

- Homogeneous opacity with concave upper margin
- Costophrenic and cardiophrenic angles are obliterated on the left side
- · Trachea shifted to the right

Dx: Left sided massive Pleural Effusion



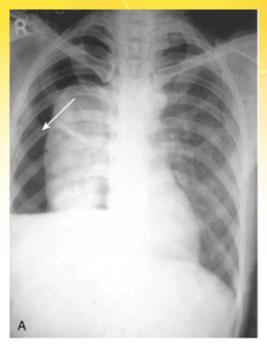


PNEUMOTHORAX

CXR PA view showing:

- · Increased translucency on the right side.
- Trachea and heart (mediastinum) are shifted to the left side

Dx: Right-sided Pneumothorax



HYDROPNEUMOTHORAX

CXR PA view showing:

- · Increased translucency with collapsed lung margin on the right side
- · Horizontal fluid level with obliteration of right costophrenic and cardiophrenic angles

Dx: Right-sided Hydropneumothorax





LOBAR PNEUMONIA

CXR PA view showing:

- · Homogeneous opacity in mid-zone of right lung with air bronchogram within it
- · Rest of the lung fields are clear
- · Costophrenic and cardiophrenic angles are not obliterated

Dx: Lobar Pneumonia



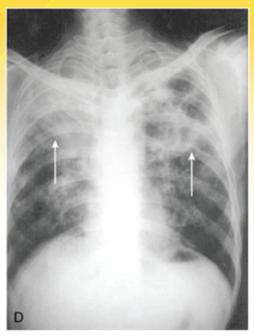
BRONCHOPNEUMONIA (BILATERAL)

CXR PA View showing

- · Multiple small bilateral areas of patchy confluent opacification, lower zone predominant
- · Costophrenic and cardiophrenic angles are not obliterated

Dx: Bronchopneumonia





PULMONARY TB (EXTENSIVE)

CXR PA view showing:

- Partly homogeneous and partly patchy opacities in right upper and part of the mid-zone, obscuring the right para cardiac border
- Multiple patchy opacities with a cavity formation in left upper and part of midzone

Dx: Bilateral extensive Pulmonary Tuberculosis





MILIARY TB

CXR PA view showing:

• Multiple miliary mottling involving all the zones of both lung fields

Dx: Miliary TB





LEFT LUNG COLLAPSE

CXR PA view showing:

- · Homogeneous opacity in all zones of left lung
- · Trachea is shifted to the left

Dx: Left Lung Collapse



BRONCHIAL CARCINOMA (PANCOAST'S TUMOR)

CXR PA view showing:

- · Homogeneous opacity in right upper-zone
- · Rest of the lung fields are clear

Dx: Bronchial Carcinoma (Pancoast's Tumor)





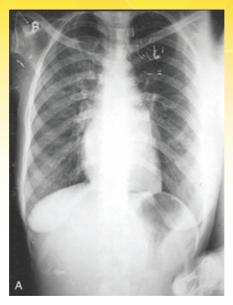
LUNG ABSCESS

CXR PA view showing:

• A cavity with air-fluid in the right upper and part of mid-zone

Dx: Lung Abscess.

CARDIOVASCULAR SYSTEM:



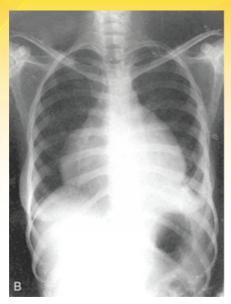
MITRAL STENOSIS

Findings:

CXR PA view showing:

· Heart is normal in transverse diameter with straightening of left border

Dx: Mitral Stenosis



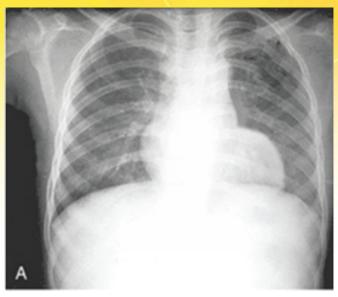
PERICARDIAL EFFUSION

CXR PA view showing:

- Heart is enlarged in transverse diameter, globular and pear shaped with clear margin
- · Lung fields are oligaemic
- · Both cardiophrenic angles are acute

Dx: Pericardial Effusion





TETRALOGY OF FALLOT (TOF)

CXR PA view showing:

- · Boot-shaped heart (apex is lifted up and there is concavity or bay in the region of pulmonary artery)
- · Oligaemic lung fields (Hilar vessels are few, lung vessels also few, large right ventricle and small pulmonary artery may be present)

Dx: Tetralogy of Fallot (TOF)

ABDOMINAL X-RAYS:



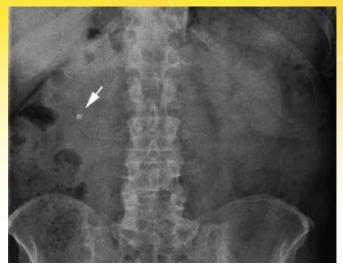
NORMAL ABDOMINAL PLAIN XRAY A/P VEIW

Findings:

X-ray Abdomen AP view showing:

- · The small bowel lies centrally
- · The large bowel lies peripherally
- · The bladder may be seen as a soft tissue density arising from the pelvic floor
- The stomach is normally outlined with air below the left hemidiaphragm

Dx: Normal Findings on Abdominal X-Ray



SOLITARY KIDNEY CALCULUS

X-ray KUB Region showing:

· Round opacification at right lumber region

Dx: Solitary Renal Calculus





BILATERAL KIDNEY CALCULI

X-ray KUB Region showing:

• Multiple renal stones in both kidneys especially in the right side

Dx: Bilateral Renal Calculi



STAGHORN RENAL CALCULI

X-ray KUB Region showing:

· Calcified shadow along the pelvicalyceal system on the both sides

Dx: Staghorn Renal Calculi





PNEUMOPERITONEUM (GASTRIC PERFORATION)

X-ray Abdomen erect position including both diaphragms showing:

· Free gas shadow under both diaphragm

Dx: Pneumoperitoneum probably due to Gastric Perforation



SMALL BOWEL OBSTRUCTION

X-ray Abdomen AP view showing:

- · Dilated loops of small bowel proximal to the obstruction
- · Predominantly central dilated loops
- · Valvulae Conniventes are visible

Dx: Small Bowel Obstruction





LARGE BOWEL OBSTRUCTION

X-ray Abdomen AP view showing:

· Dilated bowel loops that are peripheral, contain haustra and contain faeces

Dx: Large Bowel Obstruction



SIGMOID VOLVULUS

X-ray Abdomen AP view showing:

· Coffee bean sign

Dx: Sigmoid Volvulus



RHEUMATOLOGICAL SYSTEM:



OSTEOPOROSIS

Findings:

X-ray of Lumbodorsal Spine lateral view showing:

- · Diffuse osteopenia involving the body of all vertebrae
- · Linear calcification in front of the vertebral column
- · Displacement of L5 posteriorly with reduction of joint space between L5 and L4

Dx: Osteoporosis with Aortic Calcification with Spondylolisthesis (L4 and L5)



TOPHACEOUS GOUT

X-ray of left foot showing:

- · Two bony outgrowths, one large involving the first MTP joint and one small in the second DIP joint
- · Presence of lytic lesion

Dx: Chronic Tophaceous Gout



RHEUMATOID HANDS

X-ray of both hands AP view showing:

- Periarticular osteopenia in metacarpophalangeal and proximal interphalangeal (PIP) joints
- · Reduction of joint space of all the PIP joints of both hands
- · Ulnar deviation of both hands with ankylosis of carpal bones

Dx: Rheumatoid Arthritis



TRANSVERSE FRACTURE

X-ray left arm including shoulder joint A/P view showing:

 Transverse fracture through the proximal humerus with displacement of the distal component

Dx: Transverse Fracture of Humerus (Left)



SEGMENTAL FRACTURE

X-ray leg A/P and lateral view showing:

· Segmental fracture of Tibia & transverse fracture of Fibula

Dx: Fracture of Tibia & Fibula (Right)

CT SCANS

CT CHEST:



BRONCHIECTESIS

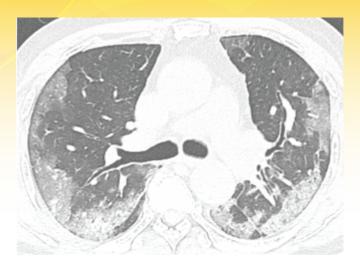
Findings:

CT chest showing:

 Multiple ring-like dilatations of bronchi in both lungs, more on the right side

Dx: Bronchiectasis





CT chest showing:

· Bilateral multiple peripheral ground-glass opacities with some crazy-paving appearances

Dx: COVID Pneumonia



LUNG (LEFT) COLLAPSE

CT Chest showing:

· Left upper lobe collapse and infiltrations in the lower lobe

Dx: Left Lung Collapse

CT CHEST:



SAH

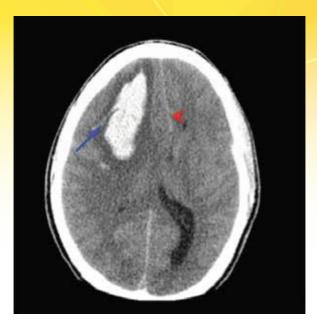
Findings:

CT Brain showing:

 Hyperdense material is seen filling the subarachnoid space apparent around the Basal Cisterns, Sylvian Fissures and Tentorium

Dx: SAH (Subarachnoid Hemorrhage)





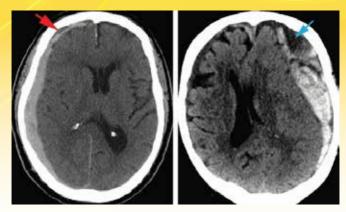
HEMORRHAGE IN CEREBRUM

CT Brain showing:

- An acute hemorrhage in the right frontal lobe with associated vasogenic edema (blue arrow), and right-to-left midline shift (red arrowhead)
- ${\boldsymbol{\cdot}}{}$ The presence of sulcal effacement suggests diffuse cerebral edema

Dx: Hemorrhage in Cerebrum



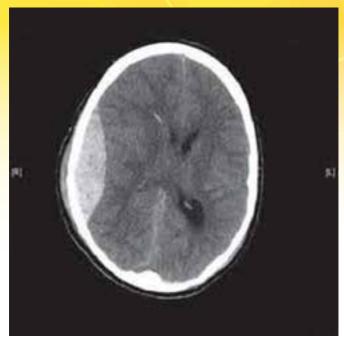


SUBDURAL HEMATOMA

CT Brain showing:

· Hyperdense (white), crescent-shaped (concavo-convex) mass between the inner table of the skull and the surface of the cerebral hemisphere

Dx: Subdural Hematoma



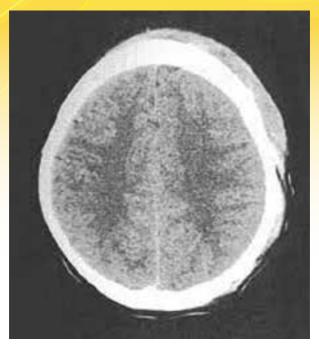
EPIDURAL HEMATOMA

CT Brain showing:

· Hyperdense, somewhat heterogeneous, and sharply demarcated biconvex shadow beneath the squamous part of the temporal bone

Dx: Epidural Hematoma



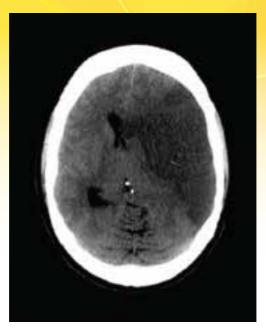


SCALP HEMATOMA

CT Brain showing:

• Swelling of the scalp soft tissues

Dx: Scalp Hematoma

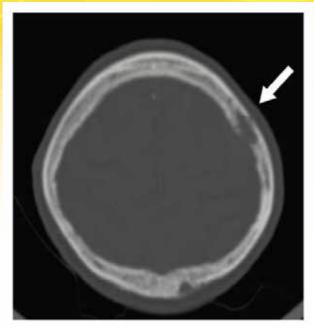


ISCHEMIC STROKE

CT Brain showing:

 Hypodensity (cytotoxic edema) in Left Frontoparietal region of cerebrum

Dx: Cerebral Infarct



SKULL METASTASIS

CT Brain showing:

 Multiple destructive (lytic) bone lesions of the skull due to bone metastases

Dx: Skull metastasis



LACUNAR INFARCT

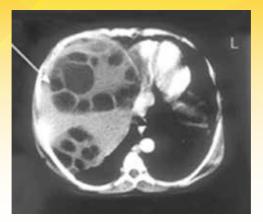
CT Brain showing:

• Old lacunar infarcts in the left basal ganglia and internal capsule areas

Dx: Lacunar Infarct



CT HBS:



HYDATID CYST IN LIVER

Findings:

CT scan of HBS showing:

- Multiple hypodense areas with multiple septations, involving the liver

Dx: Hydatid cyst in Liver

NOTE			



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