

Chest and Abdomen Radiograph Interpretation

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Objectives

1. Describe the important components in interpretation of chest and abdomen radiographs.
2. Describe findings to identify normal and abnormal findings in chest and abdomen radiographs.
3. List findings to accurately identify common pathology in chest and abdomen radiographs.

Outline

Approach to reading chest radiographs

Heart borders

Cardiothoracic ratio

Rotation, Inspiration, Penetration

Poor vs. good inspiration

Lung lobes

Pulmonary artery markings

Hilar markings

Consolidation

Lung lobes

Pleural effusion

Estimate of size

Tumor involvement

Congestive heart failure

Kerley lines

Interstitial markings

Cephalization of flow

Pneumothorax

Expiratory films

Hemothorax

Estimate amount

Foreign bodies of chest

Trachea vs. esophageal

Croup

Steeple sign

Case studies

Indications for the abdomen radiograph

Perforation

Obstruction

Renal colic

Plain films of the abdomen

Lateral decubitus

Upright film

Gas Pattern

Extraluminal Air

Soft Tissue Masses

Calcifications

Normal gas patterns

Stomach

Small bowel

Large bowel

Normal fluid levels

Stomach

Small bowel

Obstructive series

Supine

Prone or lateral

Erect or left decubitus

Chest erect or supine

Functional ileus

Localized, sentinel loops

Generalized

Mechanical small bowel obstruction

Dilated small bowel

Air fluid levels

String of beads sign

Disproportionate dilatation of small bowel

Large bowel obstruction

Dilated large bowel

Free air

Air beneath the diaphragm

Falciform ligament sign

Foreign bodies in abdomen

Abdominal calcifications

Rim like

Lamellar

Cloudlike

Take home points

Case studies