

PLABABLE

GEMS

VERSION 1.9

RADIOLOGY



Key Abdominal USG Findings

PCOS:

- Presence of multiple follicles in the ovary
- Enlarged ovary

Molar pregnancy:

- **Snowstorm or bunch of grapes** appearance in the uterus
- Enlarged uterus



Dermoid cyst:

- Tip of the iceberg sign

Ovarian endometrioma or chocolate cyst:

- Ground-glass echoes
- Thick-walled unilocular cyst

Tubo-ovarian abscess:

- Multilocular septations
- Irregular thick walls

MRI Spine

Malignant spinal cord compression

Features

- Back pain
- **Neurological symptoms**
 - Urinary retention or faecal incontinence
 - Loss of sensation
 - Weakness of the limbs
- **History of cancer**
 - Prostate
 - Breast
 - Multiple Myeloma
- Immediate Investigation: **MRI whole spine**

Cauda equina syndrome

Features

- Back pain
- **Neurological symptoms**
 - Urinary retention or faecal incontinence
 - Saddle paresthesia
 - Weakness of the limbs
- Immediate Investigation: **MRI spine**

Gallbladder

Cholecystitis and ascending cholangitis

- Ultrasound abdomen

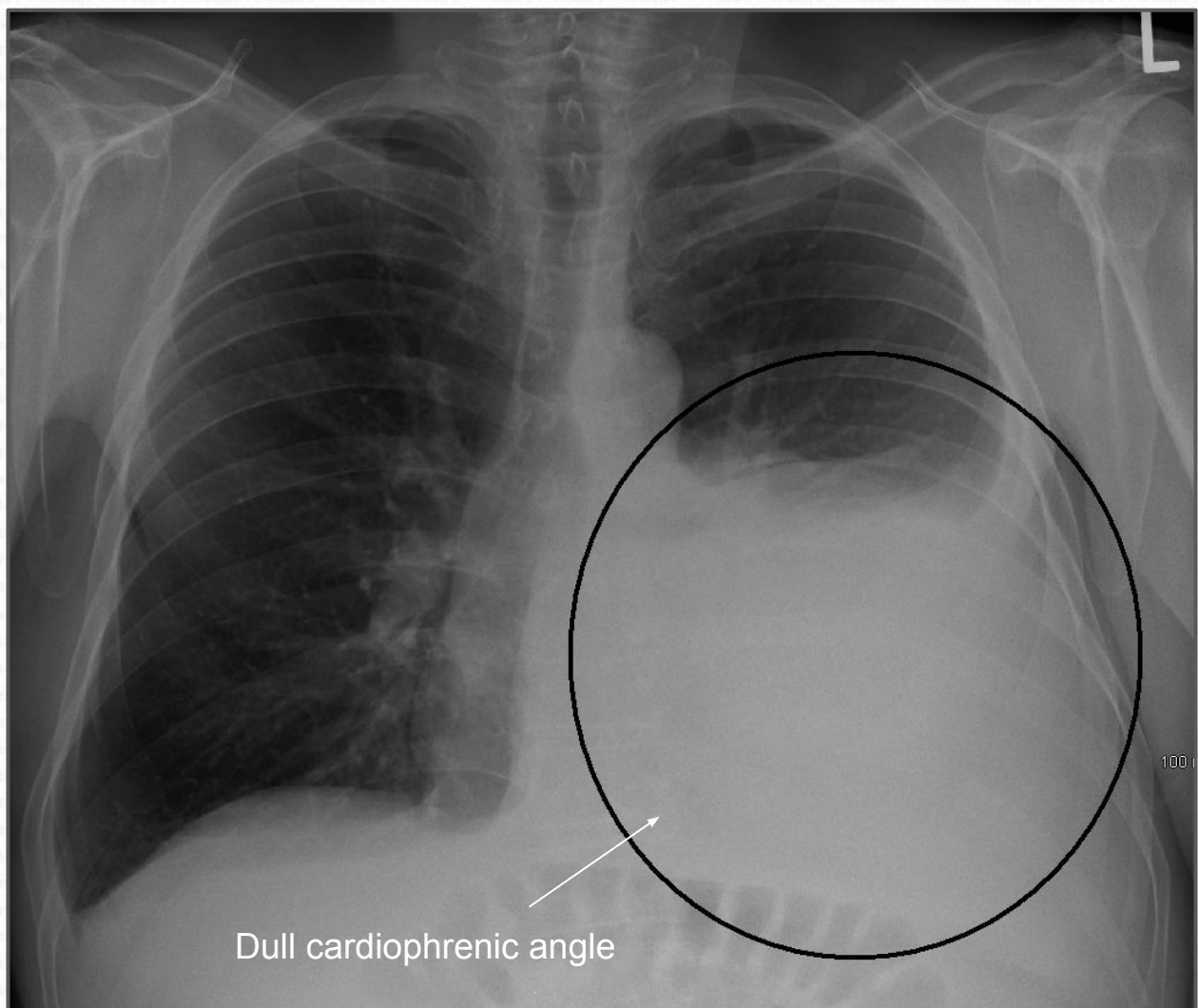
Pleural Effusion

Types

- **Hydrothorax** - Serous (pneumonia)
- **Haemothorax** - Blood (trauma)
- **Chylothorax** - Lymph (localised empyema)
- **Pyothorax** - Pus (pneumonia)

Examination

- Dullness to percussion
- Absent breath sounds on auscultation



Superior Vena Cava Syndrome

Obstruction of the SVC by either tumour or clot

Presentation

- Dilated superficial veins of neck, arms and anterior chest wall
- Oedema of the face, neck and upper limb
- Difficulty breathing
- Weight loss and smoking in case of cancer

Investigations

- Chest X-ray - may reveal a tumour
- Contrast enhanced CT - investigation of choice

Management

- Stenting / angioplasty
- Treatment of specific cancer

Superior Vena Cava Syndrome

Brain trainer:

A 45 year old chronic smoker developed shortness of breath and headache for the past several weeks. On examination there is swelling of his arms and face, and distension of his neck and upper chest veins and is not pulsatile.

- Most likely Dx → **SVC obstruction**
- Most appropriate investigation → **Contrast enhanced CT chest**
- Treatment of choice → **Endovascular stenting**



Dilated
superficial veins
in a case of
SVC syndrome

Pancoast Syndrome

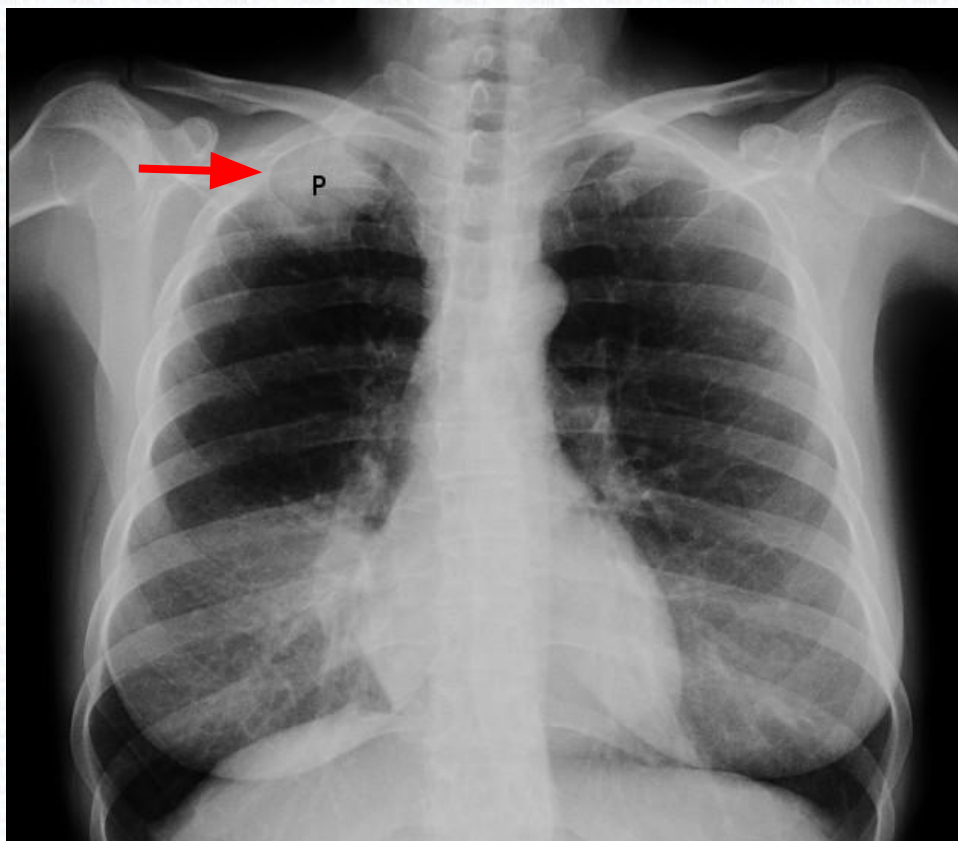
Superior sulcus or apical tumour of the lung causing compression of the nearby structures

Presentation

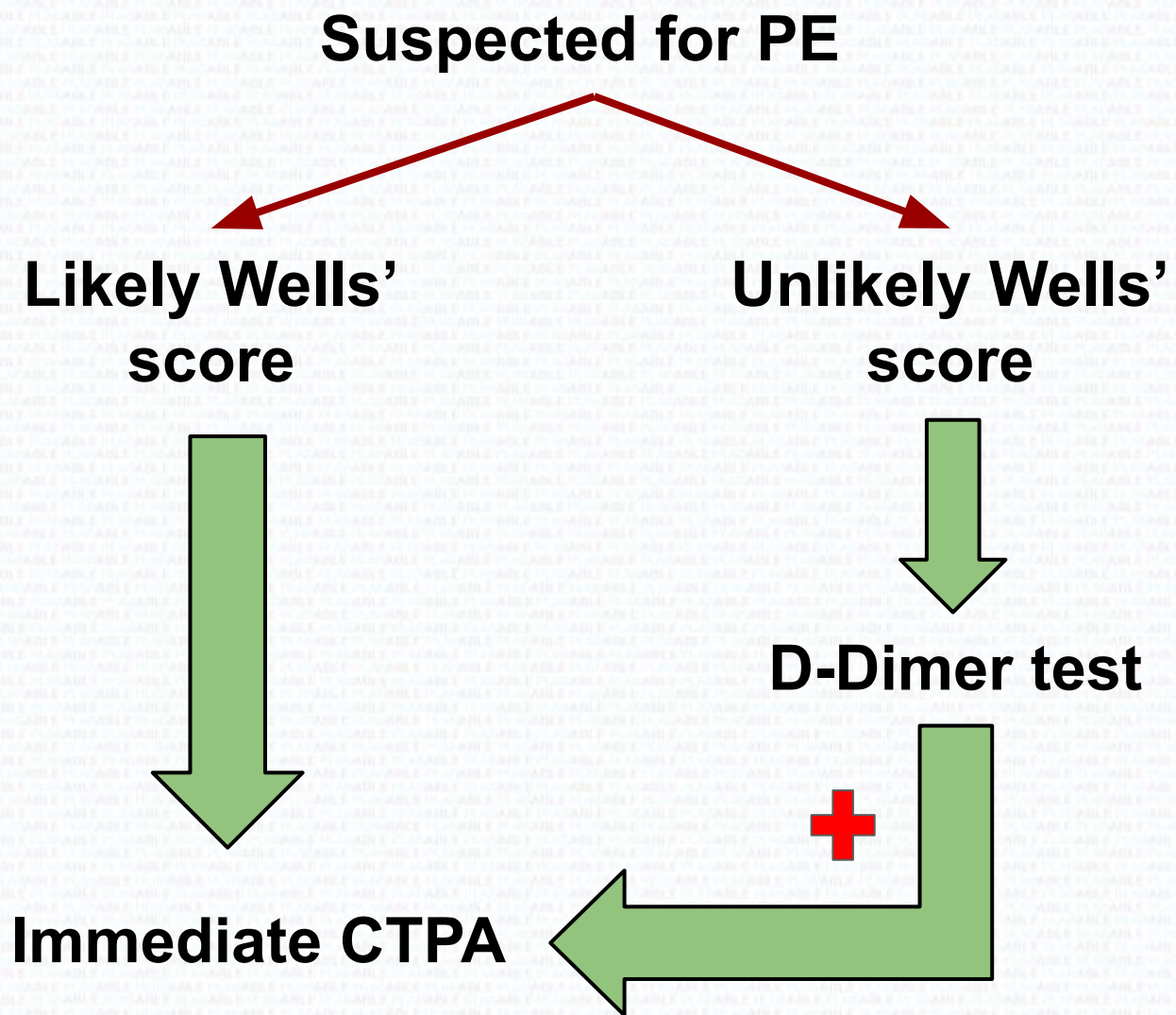
Mnemonic:
HORNY
PAMELA

- **Horner's syndrome:**
 - **P**tosis (drooping of eyelid)
 - **A**nhidrosis (lack of sweating)
 - **M**iosis (constriction of pupils)
 - **E**nophthalmos (sunken eyeball)
 - **L**oss of ciliospinal reflex
- Shoulder and arm pain
- Atrophy of intrinsic muscles of hand
- SVC syndrome

Management is by surgical resection of the tumour



Tests for Pulmonary Embolism



*CTPA - CT Pulmonary Angiography

A chest X-ray must always be done before a CTPA to rule out other causes of SOB

- Allergy to contrast media
- Renal impairment
- High risk from irradiation (**pregnancy**)

OFFER

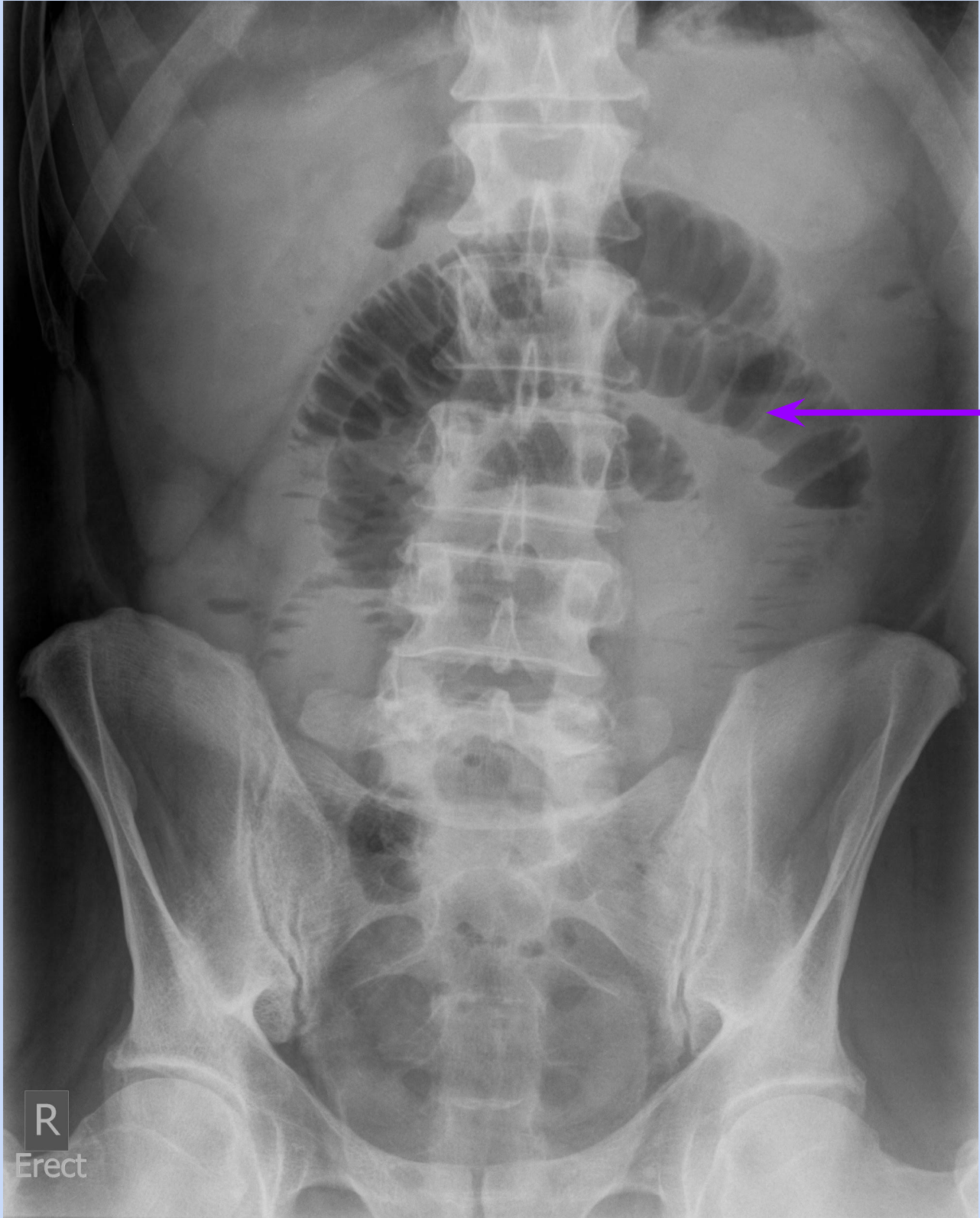
Ventilation perfusion scan

Small Bowel Obstruction Vs Large Bowel Obstruction

Small Bowel Obstruction	Large Bowel Obstruction
Lies more centrally	Surrounds small bowel
Valvulae conniventes that extend all the way across the full width of bowels	Haustra that extend a third of the way across
Maximum normal diameter 30 mm	Maximum normal diameter 60 mm
Usually caused by adhesions	Usually caused by colorectal cancers and diverticular strictures

Small Bowel Obstruction Vs Large Bowel Obstruction

This X-ray shows a small bowel obstruction

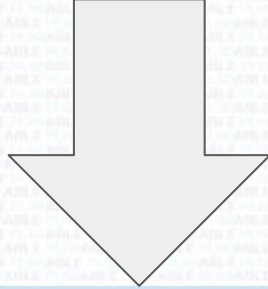


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Case courtesy of Assoc Prof Craig Hacking, Radiopaedia.org, rID: 66670

Notice the valvulae conniventes that extend all the way across the full width of bowels indicative of a small bowel. The large bowels have haustra instead that do not transverse the bowels.

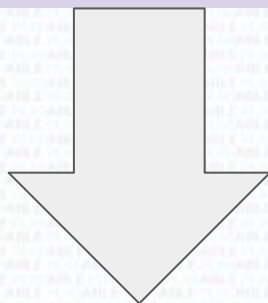
Fetal Ultrasounds

No visualisation of fetal stomach bubble



Think oesophageal atresia

Double bubble sign

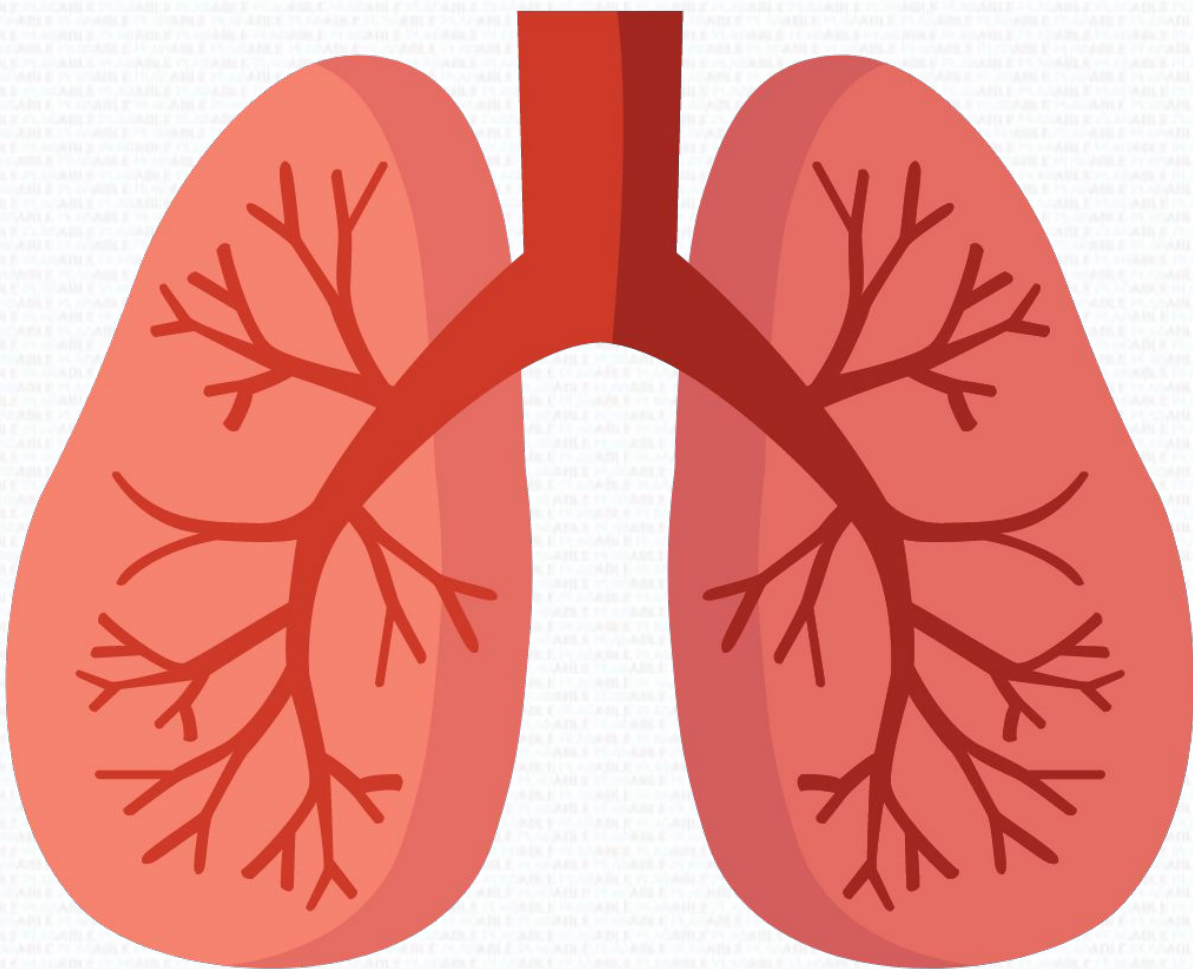


Think duodenal atresia

Parapneumonic Effusion

Pleural effusion that arises from pneumonia (usually bacterial pneumonia)

Consolidations may be seen on the same lung



Complications → Empyema

Sialography

Sialography is the radiographic examination of salivary glands. Dye is injected into the salivary duct of a single gland and X-ray images are taken.

When to use?

Evaluation of salivary glands in cases of obstruction like a stone (sialolithiasis)



Sialolithiasis

Clinical features

- Recurrent swelling and pain in the involved gland
- Intermittent pain which gets worse before mealtimes (when salivation occurs)
- Palpation of a hard lump (if stone is near end of duct)

The stone can be seen as a filling defect within the duct.

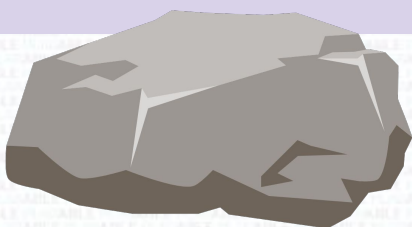


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