

NERVE SUPPLY OF PLEURA

- ① PARIETAL PLEURA → DEVELOPS FROM SOMATOPLEURIC LAYER OF LATERAL PLATE MESODERM.
- SUPPLIED BY SOMATIC NERVES → INTERCOASTAL NERVES ✓
→ PHRENIC NERVES ✓
- PARIETAL PLEURA IS PAIN SENSITIVE.
- • COASTAL PLEURA
• PERIPHERAL PART OF DIAPHRAGMATIC PLEURA } SUPPLIED BY INTERCOASTAL NERVES ✓
- CENTRAL PART OF DIAPHRAGMATIC PLEURA } SUPPLIED BY PHRENIC NERVES. (C4)
- MEDIASTINAL PLEURA

② VISCERAL PLEURA → DEVELOPS FROM SPLANCHNOLEURIC LAYER OF
LATERAL PLATE MESODERM ✓

→ SUPPLIED BY AUTONOMIC NERVES.

SYMPATHETIC
NERVES ✓



DERIVED FROM
T₂-T₅ SYMP.
GANGLIA]

PARASYMPATHETIC
NERVES ✓



FROM VAGUS
NERVE. ✓

→ NOT SENSITIVE TO PAIN.

[* SYMPATHETIC : dilates the BRONCHI ✓

PARASYMPATHETIC : narrows the BRONCHIAL TREE ✓

& is also SECRETORY TO GLANDS.

BLOOD SUPPLY

- PARIETAL PLEURA: • INTERCOSTAL (A) ✓
• INTERNAL THORACIC (A) ✓
• MUSCULOPHRENIC (A) ✓



- VEINS DRAINS INTO — [• AZYGOS (V) ✓
• INTERNAL THORACIC (V) ✓

- VISCERAL PLEURA: • BRONCHIAL (A) ✓
• BRONCHIAL (V) ✓

LYMPHATIC DRAINAGE

- (PP)^T: • INTERCOSTAL NODES ✓
• INTERNAL MAMMARY " ✓
• POSTERIOR MEDIASTINAL " ✓
• DIAPHRAGMATIC " ✓

- (VP): • BRONCHO PULMONARY NODES ✓

CLINICAL ANATOMY (PLEURA)

- ① ASPIRATION :
- ASPIRATION OF ANY FLUID FROM PLEURAL CAVITY IS CALLED PARACENTESIS THORACIS ✓
 - IT IS USUALLY DONE IN THE 8th INTERCOSTAL SPACE IN THE MIDAXILLARY LINE. ✓
 - NEEDLE IS PASSED THROUGH LOWER PART OF SPACE TO AVOID INJURY TO THE PRINCIPAL NEUROVASCULAR BUNDLE i.e. VEIN, ARTERY & NERVE (VAN).

② CLINICAL CONDITIONS ASSOCIATED
WITH PLEURA :

(i) PLEURISY → INFLAMMATION OF PLEURA ✓

→ IT MAY BE DRY , BUT OFTEN IT IS ACCOMPANIED BY COLLECTION OF FLUID IN THE PLEURAL CAVITY k/a. PLEURAL EFFUSION.



* DRY PLEURISY IS MORE PAINFUL BECAUSE DURING INSPIRATION BOTH LAYERS COME IN CONTACT & THERE IS FRICTION.

AIR

(ii) PNEUMOTHORAX → PRESENCE OF AIR IN PLEURAL CAVITY ✓

(iii) HEMOTHORAX → " " BLOOD " " " ✓

(iv) HYDROPNEUMOTHORAX → " " ~~BOTH~~ BOTH FLUID & AIR IN PLEURAL CAVITY ✓

(v) EMPHYEMA → PRESENCE OF PUS IN PLEURAL CAVITY. ✓

③ REFERRED PAIN ✓

i) ✓ COSTAL PLEURAE

✓ DIAPHRAGMATIC PLEURA (peripheral part)

INNERVED BY
INTERCOSTAL
NERVES

→ HENCE, IRRITATION
OF THESE REGIONS
CAUSE REFERRED
PAIN ALONG
INTERCOSTAL
NERVES TO

↓
THORACIC /
ABDOMINAL
WALL.

ii) ✓ MEDIASTINAL PLEURA

DIAPHRAGMATIC " (Central part)

INNERVED BY
PHRENIC NERVE
[C4]

→ IRRITATION CAUSES
REFERRED PAIN
TO

↓
TIP OF
SHOULDERS

* INFLAMMATION OF GB $\xrightarrow{\text{causes}}$ PAIN ON RIGHT SHOULDER ✓

* SPLENIC RUPTURE $\xrightarrow{\text{causes}}$ PAIN ON LEFT SHOULDER ✓