

Pleural effusion:

The accumulation of serous fluid within the pleural space is pleural effusion. Pus - Empyema, Blood - Haemothorax, Chyle - chylothorax.

In general two causes:

i) Transudate



↑ Hydrostatic pressure
↓ Osmotic pressure.
(Renal, cardiac, liver).

ii) Exudate



↑ Microvascular pressure
due to pleural injury
or lung injury.

Causes:

~~Common~~ i) Hypoproteinaemia

Nephrotic syndrome,
Liver failure, Malnutrition.

ii) Cardiac Failure

iii) Myxoedema

iv) Anaemia

i) Tuberculosis / Infection

ii) Pneumonia

iii) Bronchogenic CA → Neoplasm

iv) SLE & RA → Autoimmune

v) Pulmonary infarction

vi) Vascular disease

Meigs Syndrome → Pleural effusion, Ovarian tumour.
Anites

Clinical features: symptom

- Dyspnoea, Pleuritic pain, and symptoms of underlying disease.

- High fever or low grade fever.

Signs:

- Diminution of movement on affected side.

Inspection → Tachypnoea

Palpation - Tachycardia and apex moved

Percussion - Stoney dullness, Ely's Curve.

Auscultation - Bronchial breathing, Crackles,
Whispering pectoriloquy, Pleural friction
rubs, ↓ Tactile vocal fremitus.

Light Criteria Effusion is exudate when one or more

Pleural fluid protein : Serum protein ratio > 0.5

Pleural fluid LDH : Serum LDH ratio > 0.6

Pleural fluid LDH $> 2/3$ rd of upper limit of serum LDH.

Investigation.

Chest X ray, ultrasound, CT, Pleural biopsy.

Mar	Transudate	Exudate
Colour	clear	cloudy.
WBC	$< 1,000$	> 1000
RBC	600	variable
Protein.	40.6	70.5
LDH	< 0.6	70.6
Gillmore	$> 60 \text{ mg/dl}$	$< 60 \text{ mg/dl}$

Management:

Pleural tapping, However more than 1.5 l should not be done at a time.