

(General ولا اقل من 12 سم Local Exa) at end of bed

Chest Examination

① Inspection: Shape / types of Rx / Symmetry / Skin.

normal transverse to AP ratio 7/5

① shape of chest

Pectus excavatum
(Funnel shape chest)

Pectus Carinatum
(Pegon Shape chest)
(مصر ١٢)

Barrel shape Chest

Flat chest

(depression of lower 1/3 of Sternum)
(غرضه) هو عبارة عن

As in:

① Antero-Posterior diam ≈ 7-5. 7:7 ? ① AP diameter ≈ 3-5 7-3

② look to Xiphoid angle

* Rickets

* Chronic Resp disease in childhood

↳ wide → yes Barrel
↳ Not wide (acute angle) → Not barrel

as: long Standing restrictive lung disease.

Congenital

Acquired

Compression (نضج / نضج)

(Marfan synd.)

(نضج / نضج)

manual shoe maker

Prevent lung to expand (↓ lung compliance)

① Symmetry

⇒ chest is

Symmetrical in movement

asymmetrical.

* In all lung diseases asymmetrical side is the affected (diseased) side ..

حركة زبانية (Pulging)

(Asymetry)

تقيص حركة (Retraction)

- pneumothorax
- pleural effusion
- huge mass.

- Fibrosis
- lung collapse
- pneumectomy or lobectomy

scab

distended - flattened - focal pulse - Asymmetry expansion - ^{irritable pt} tympanic - absent of ^{breath intensity} breath intensity
 pneumothorax..

C) Type of Respiration.

♀ Thoracoabdominal

♂ Abdominothoracic (in Normal)



* If this is seen in Males

it may indicate to:

((COPD or Pneumonia))
 use accessory muscles

D) Skin.

- ① Hair distribution.
- ② Scars
- ③ superficial veins
- ④ Accessory umbilicals / nipple
- ⑤ Spider nevi
- ⑥ Campbell de Morgan.
- ⑦ Abnormal pigmentation.
- ⑧ Prominent chest / breast.

- ⑨ SVC obstruction.
- ⑩ visible epigastric / apex pulsation

② Palpation :-

(Superficial)

- Masses
- Surgical Markers.
- Temp.

supra mammary
 infra

(Deep)

Expansion

Trachea

Apex of heart

① Trachea

② Tracheal tug

③ Cricosternal distance.

في الحادي / الطبيعي يتكون ← (slightly shifted to the Rt) ...

① Trachea assessment :-

(A) Shifted trachea :- → ((أقله يا ضيق أو مازاح))

بغير اتجاه ← دفع (disease) ← retraction ← بنفس اتجاه disease

① Mass

② هوا

(Pneumothorax)

③ ي

(Pleural effusion)

① Fibrosis .

② Collapse .

③ Pneumectomy .

② Costosternal distance :-

الطبيعي ارتفاعه 3-4 (3-4) (أقله يا ضيق)

على أيدي على Adam's apple ← بئر لعنار Cricoid cartilage ، لها أحسن
Cartilage بئر الحجاب بالعنق ، فوق كتم الحجاب طبع معي ...

له متى تقل ← SS (In obstructive lung diseases) hyperinflation

abnormal downward movement of trachea due to strong diaphragmatic contraction to overcome obstruction.

③ Tracheal Tug

Suprasternal notch

بئر الصبي في ال
حسب ال tracheal rings

(-ve)

in Normal

(+ve)

↓

≠ (obstructive lung disease)

في مرض ال

كثيراً لا يتغير موقع الصبي

لاحظ ان الصبي مع تنفس طرفين

في (tracheal ring) يتنزل بقية

الصبي

يعني 2 كافي حسب (2 tracheal ring)

② Apex of Heart :-

مع التنفس

بئر طوي صدر طرفين واري هذا Pulse هذا

(tips of fingers)

5th ICS و بوف كل

Shifted ...

منطقة الكلى
mamillary area

إذا كان في ال
و كذا في ال

ملاحظة

- 1- unfelt apex beat
 1- obesity / behind rib
 2- COPD
 3- Dextrocardia

4- Pneumothorax
 5- Pleural / Pericardial effusion

③ Chest Expansion ((N = 3-5))

- thinner hyperthinnar - Apex
 clavicle
 ① Supramammary (Apex of lung)
 ② Mammary
 ③ Inframammary. " " 5cm below nipple
 fold of skin

diminished

- ✓ Obstructive lung disease
 ✓ lung fibrosis.

③ Percussion

Apex Kronig's isthmus

- a) supraclavicular b) clavicular c) supramammary
 d) mammary e) inframammary
 f) axillary < upper lower.

Notes :

- ① Normal Sound is Resonance.
 ② Abnormal Sound in Percussion :

* Hyperresonance

- ↳ Pneumothorax
 ↳ COPD

emphysematus pullae اذا صلب

* Dullness

- ↳ fibrosis
 ↳ Consolidation
 ↳ mass
 ↳ Collapse.

* Stony dullness

- ↳ Pleural effusion.

③ Shifted dullness

↳

Hydro Pneumothorax

hyperresonance
 Pleural effusion

③

Tidal Percussion of liver

Trubes Area.

(resonance)

6
8
9

Dull

fundus + lung
tympanic resonance

lung (1)
date
spl
lobe of liver
stomach
colon
ascites

4) Auscultation :-

•: sk → 14 في الجوف، raw' qoliz lio #

- 1) Breath sound.
- 2) intensity of breath.
- 3) Added Sounds
- 4) vocal resonance.

(3 : 1)
inspiration > expiration

1. Breath sound.

↳ In Normal : (I say); There is visceral sound.

↳ Abnormal

- ① ↳ Harsh visceral ~~sound~~ breathing.
= (Prolong expiratory visceral breathing)

asthma
COPD

•: (Whise)

هذا يكون في حالات ال -
or one side
- tumor
- Foreign body

- ② ↳ Bronchial breathing.

•: (Manubrium of Sternum) ال

(inspiration Gap expiration) : ال

من الجوف

• (alveoli filled with pus) =

- 1) Consolidation → as: pneumonia
- 2) Collapse
- 3) Cavity → Abscess.

2. Intensity.

Not equal / (equal) ال

(diminished intensity)

3. Added Sounds

Pleural rub
whise
Crackles → coarse
fine

•: (OSCE) ال

↳ expiratory whise
↳ inspiratory . expiratory whise.
↳ inspiratory (Rare)
↳ tracheal.

(obstruction / infection)

unilateral in foreign body

due to secretion. Friction

(b) Crackles :

↳ They may be Fine , Coarse :

1- type 2- time 3- with cough 4- site

(1) Coarse Crackles :

↳ It indicate excessive fluid on the lungs
 ↳ They are usually heard at the beginning of expiration.
 ↳ It Caused by : 1) Aspiration
 2) Pulmonary oedema.
 3) Chronic heart disease
 4) Chronic bronchitis
 5) Pneumonia. + COPD
 6) Bronchiectasis.

Blood
Pus
Fluid
men
edema

alveoli
mid/late inspiratory??

Characteristic :
 (inspir + expira. Crackles)

2) Fine Crackles : (mid-late inspiration) (في الآخر)

↳ Predominantly they are heard in inspiration.

↳ It Caused by :-

- pulmonary Fibrosis.
- Sarcoidosis
- Asbestosis
- Pulmonary edema

① I PF

idiopathic
Pulmonary
Fibrosis

② congested
lung

③ early pneumonia
superficial
sub-cutaneous

(c) Pleural friction rub.

↳ indicate to (Pleurisy).

↳ Rare to be heard.

(Bronchial breathing) (سعال جاف)

4. Vocal resonance :

↳ Hyper resonance (3C)

inspect vocal.

Collapse

Consolidation

cavity.

Palpation + Percussion
auscultation

وبه ذلك نرى فيه اضطراب على الجدار

* Dispine sign / interscapular bronchial breathing

→ mediastinal LAP
TB / sarcoidosis / lymphoma

بعض الملاحظات خلال دواء سس الازونين (صبرية):

(1) أهم الملاحظات التي يجب دراستها هي:
Pneumonia, PE, Asthma, COPD, Pleural effusion.

Notes:

1) drugs induced interstitial lung disease :-

- 1) Phenytoin 2) Methotrexate 3) Amiodarone.
- 4) Nitrofurantoin 5) Bleomycin
- 6) Busulfan 7) Penicillamine 8) Cocaine / Heroin.

2) Bacterial species isolated from Patients experiencing exacerbation of COPD are:

1) ~~Haemophilus~~ Haemophilus influenza.

- 2) Moraxella catarrhalis.
- 3) Streptococcus pneumoniae.
- + 4) less common (Staph. aureus).

3) COPD exacerbation

→ 75% infections → 25% PE

4) SS ICS + SABA + LABA من الستيرويدات
→ In Case of Asthma-COPD interacting syndrome.

5) What the differences between:

Albuterol vs. Salbutamol		us.	Salmeterol
↓	↓		↓
(نفس) SABA	Brand name.		LABA
	(Trade name)		

6) Indication of surgery in COPD Patient :-
as: Emphysematous

Pneumothorax.

7) Oral Prednisone equal ~~to~~ better than IV.

- 8) # Indications of long term Oxygen therapy (LTOT) :-
- 1) Chronic obstructive Pulmonary disease (COPD)
 - 2) ILD (Interstitial lung disease).
 - 3) Pulmonary Hypertension.
 - 4) Cystic fibrosis.
 - 5) Advanced cardiac failure.

9) In-hospital patients $\Rightarrow$ lower limbs w/ cap's & r's

- DVT $\leftarrow$
- Fluid overload $\leftarrow$

10) Geographic tongue : $\rightarrow$ vitamin deficiency (B12)
 $\hookrightarrow$ Senility

11) Read about Cervical spondylosis.

12) Complication of TIPS on liver ??
Hepatic encephalopathy.

13) DDX of white lung on X-ray: Pneumonia
~~Pneumothorax~~ Collapse

14) Atypical bacterial pneumonia pleural effusion.
is caused by atypical organisms. severe (massive)

(Not detectable by Gram stain / Not cultured)

$\hookrightarrow$ MCC are :

- ① Mycoplasma pneumoniae
- ② Chlamydia pneumoniae
- ③ Legionella pneumophila

Cavity :-

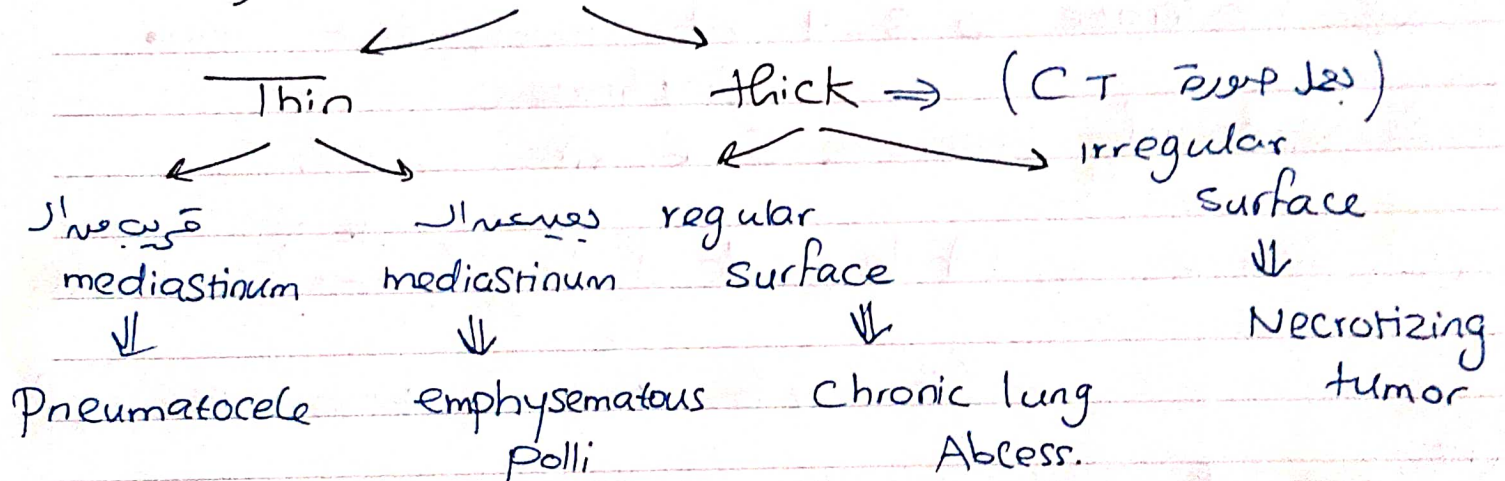
كيف اقترأ ال X-ray في حال وجود Cavity
 # ما يتبعه خلال ال CT + تميز النوع + ال DDX ؟

① Content of cavity (according the color on X-ray)

- ↙ (a) Air
- ↓ (b) Air-fluid mass (الهواء السائل)
- ↘ (c) soft tissue mass.

(a) Air containing cavity.

1) thickness of membrane.



(b) Air - fluid mass.

• Fluid - Air ال أنظر لخط الغاطس

↳ Acute lung Abscess.

↳ Straight line.

↳ Hydated cyst → may caused by parasite.
 water wavy sign.

(c) soft tissue mass :-

- ↳ Fungal ball (CT كثيف) (regular surface)
- ↳ necrotizing tumor (irregular surface)
- ↳ Rupture hydated cyst (تسرب السائل من الكيسة)

15) Complications of Pneumonia :-

- 1) ARDS
- 2) lung Abscesses.
- 3) Respiratory failure
- 4) sepsis.

16) كيف بدى انتشار ال effusion degree ال SS X-ray

① mild $\Rightarrow$ Involved 1st + 2nd rib above diaphragm (لوحه ابيضه)

② Moderate $\Rightarrow$ 3-4 ribs involvement from diaphragm

③ Moderately severe $\Rightarrow$ 5-6 ribs " "

④ Severe $\Rightarrow$ Whole side of lung ($< R_t$) is white.

((It may be due to pneumoecstasy))

17) PH of Normal pleural fluid = 7.6

18) TB patient, May be diagnosed in first time by pleural effusion that according to WBCs Percent.

(Adenosine deaminase)
 $\rightarrow$ For ensuring $\rightarrow$ ADE test.

$\swarrow \searrow$
-ve $\rightarrow$ exclude TB
+ve $\rightarrow$ ✓

19) D-dimer $\Rightarrow N > 500$ (< 504) in

$\hookrightarrow$ High in:

(Pregnancy & infection
liver failure & Renal failure)

> 504 ال d-dimer

(age x 10) = N

N = 650

$\therefore 500 < 650$

20) Peritoneal dialysis may cause (Massive Pleural effusion)
→ progress quickly to cause acute respiratory distress...

21) different causes / types of Pleural effusion : (Transudative)
(due to :)

- 1) Peritoneal dialysis → Rt Side effusion.
- 2) CSF leak
- 3) urinothorax.

← in Renal Stones.

The only cause of low pH (acidic) transudative pleural effusion.

22) McConnell's sign :

Persistent Hypokinesia, defined as Rt ventricular (RV) free wall hypokinesia with preserved apical contractility.

↳ It classically indicates (PE) / ↳ some studies show that it may be seen in Acute RV infarction.

23) ECO ⇒ Baseline for all Patients. with PE.

24) Study Wells score ... ~~##~~