

Pleural effusion

MCQs

- **WRONG** about Light's criteria of pleural effusion :

Serum LDH is more than 2/3 of pleural fluid LDH ✓

- **NOT** a feature of transudative effusion??

HCL More than two thirds of serum HCL

- A 52-year-old male presents with one month history of a right sided chest pain, dyspnea. CXR shows a rightsided pleural effusion. A thoracentesis is performed and the results of the pleural fluid analysis are as follows: Pleural/serum total protein ratio: >0.5 WBC count: 7,000 cells/pL Lymphocytes: 85% Glucose: 30 mg% LDH: 1430 IU/L Which of the following is **NOT** likely to be a cause of the pleural effusion in this patient?

Select one:

- a. Rheumatoid arthritis ??
- b. Mesothelioma
- c. Tuberculosis
- d. Para-pneumonic effusion ?
- e. Lymphoma

- A 55 year-old woman with asthma is on systemic steroids for one year. She develops a recent right-sided pleural effusion. She feels unwell and tires easily. Aspiration reveals a turbid fluid, a high lymphocyte count, high LDH, low glucose, and a pH of 7.4. The most compatible diagnosis is?

- a. Pulmonary embolism
- b. Empyema ??
- c. Tuberculosis ??
- d. Subphrenic abscess
- e. Pancreatitis

- In the ER is a 59 Y/O patient with chest pain and SOB. She just had appendectomy 8 days ago, chest examination reveals dullness to percussion on the Rt side, decrease tactile fremitus, and asymmetrical chest expansion on the Rt side . which one of the following is most likely?

- a) Pneumothorax
- b) Pleural effusion**
- c) Pneumonia
- d) PE
- e) Lung abscess

- stony dull on percussion , decrease TVF , loss of auscultatory sounds:

Pleural effusion

- A woman who developed dyspnoea over 3 weeks... she presented to ER... X- ray showed large left pleural effusion, your next step is:
 - A. Aspiration of fluid to dryness and examination of fluid
 - B. Only examination of fluid
- A pleural effusion analysis results: ratio of concentration of total protein in pleural fluid to serum of 0.38, lactate dehydrogenase LDH level of 125 IU, and ratio of LDH in pleural fluid to serum of 0.45. Which of the following ONE disease is the most likely the cause for this pleural effusion.
 - a- uremia
 - b- pulmonary embolism
 - c- sarcoidosis
 - d- SLE
 - e- Congestive heart failure**
- All of the following are causes of exudative pleural effusion except:
 - A) Malignancy
 - B) Trauma
 - C) Collagen vascular disease
 - D) Infection
 - E) Congestive heart failure.**
- Regarding pleural effusion caused by TB :
 - a- Fluid analysis Predominated by lymphocytes
 - b- Fluid positive for AFB stain in less than one third of patients .
 - c- Negative culture for AFB can't exclude the disease.
 - d- Pleural biopsy increases the yield for AFB culture.
- A 24 year old female patient has 4 days history of fever, chills and left sided chest pain which increased by inspiration. Chest x ray showed consolidation in the left lower zone with signs of pleural effusion on the same side. All of the followings are indications for insertion of chest tube and intrapleural thrombolytic therapy except ;
 - a- multiloculated fluid by CT scan .
 - b- LDH of 1500 mg/l
 - c- Gram stain of the pleural fluid is positive for Gram positive cocci . ??
 - d- Fever remained >39 in spite of IV antibiotics .
 - e- Pleural fluid culture +ve for strep.pneumonia .

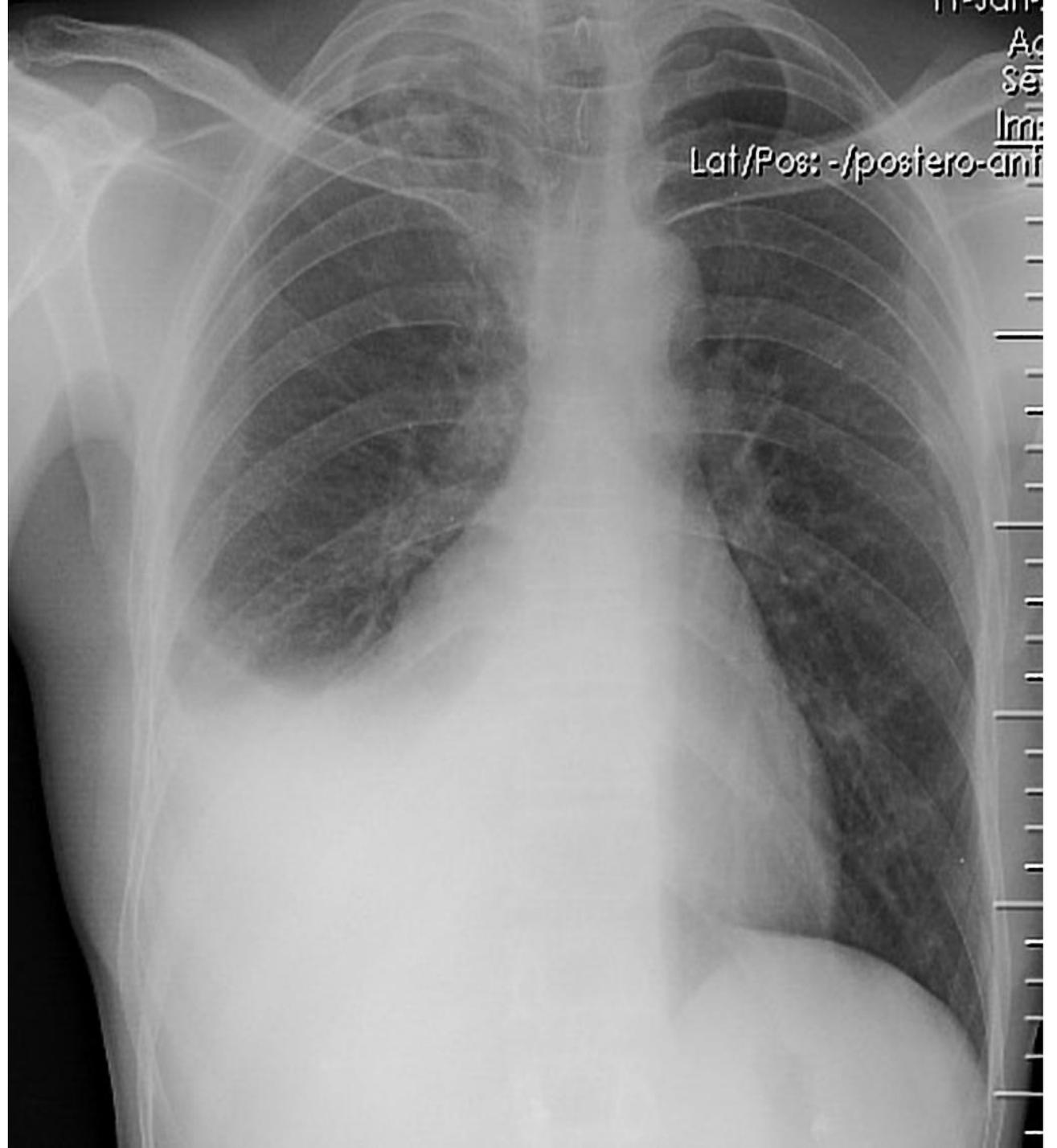
Mini-OSCE

Station 12

Q1 : what the radiological abnormalities found in this X – ray ?

Concave opacity in RLL silhouetting heart border

Q2 : your radiological DX
pleural effusion



Q2 : Regarding CXR :

-ALL of the following cause exudative Pleural effusion , Except ?

A. Heart Failure

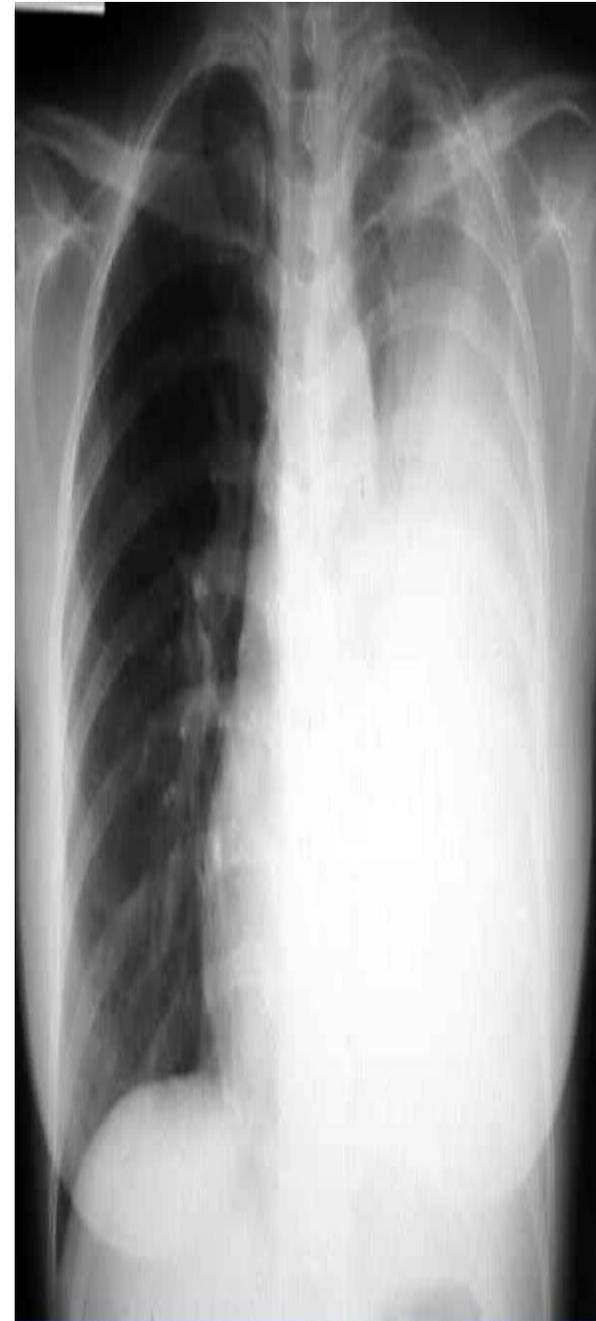
b. Pneumonia

c. Mesothelioma

d. TB

*According to the light's criteria ,
which of the following +ve with
exudative ?

**Pleural fluid to the serum total
protein > .5**



Transudate

$$\frac{\text{pleural fluid protein}}{\text{serum protein}} < 0.5$$

$$\frac{\text{pleural fluid LDH}}{\text{serum LDH}} < 0.6$$

pleural fluid LDH
< 2/3 upper limit normal

Common causes

CONGESTIVE
HEART FAILURE

CIRRHOSIS

NEPHROSIS

Exudate

$$\frac{\text{pleural fluid protein}}{\text{serum protein}} > 0.5$$

$$\frac{\text{pleural fluid LDH}}{\text{serum LDH}} > 0.6$$

pleural fluid LDH
> 2/3 upper limit normal

Inflammatory causes such as

BACTERIAL
PNEUMONIA

CANCER

TRAUMA

Station 8

1) What is your diagnosis?

Pleural Effusion

1) List three causes of this condition?

CHF – pneumonia – malignancy – pulmonary embolism

1) What are other possible findings on the physical exam?

Dullness to percussion – decreased tactile fremitus – decreased breath sounds



ABNORMALITY	BREATH SOUNDS	PERCUSSION	FREMITUS	TRACHEAL DEVIATION
Pleural effusion	↓	Dull	↓	None if small Away from side of lesion if large