Tuberculous pneumonia

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Quiz - Pneumonia (pre test)
F, 28 y old, fever 38°, cough, sputum. What is the most likely diagnosis?

Select one answer:

A. Pulmonary abcess
B. TB pneumonia
C. Bacterial pneumonia
Man, 50 y old, alcoholism and smoking. Worsening condition, cough, hemoptysis. Left chest pain

*Sputum : AFB negative*

Select one answer:

A. TB pneumonia

B. Left upper lobe partial atelectasis by lung cancer

C. Bacterial pneumonia
Fever, cough, dyspnea, thoracic pain
With that CXR, what is your diagnosis?

Select one answer:

A. Tumor
B. Pleural effusion
C. Bacterial pneumonia
Young man t ° 39 ° C, cough, purulent sputum and right chest pain, sudden onset
What is the most likely diagnosis

Select one answer:
A. Bacterial pneumonia
B. TB
C. Tumor
Man, 30 years old, cough, fever & dyspnea

Select one answer:
A. TB pneumonia
B. Cancer
C. Bacterial pneumonia
Common adult TB
Basic radiological images:

- Nodule
- Infiltrate
- Cavity
- Tuberculous pneumonia
Tuberculous pneumonia(1)

- This is an alveolar image: non-homogenous, not clearly limited, except if contact with fissure, with aeric bronchogram
- The association with other TB lesions is very frequent: adenopathies, nodules and infiltrates, especially in AIDS patients
- The lesions are often bilateral
Tuberculous pneumonia (2)

• The research of AFB is most often positive in sputum, because these lesions are very rich in tuberculous bacilli.

• The spontaneous evolution is the constitution of cavitation and destruction of the lung tissue, retraction and fibrosis => important sequelae if treatment is too late.

• Tuberculous pneumonia is frequent among PLHIV. In this case the pneumonia is as frequent in the inferior lobes as the superior, and is often associated with adenopathies. The excavation is unfrequent in cases of severe immunodepression.
Alveolar pattern
- Non homogenous
- Not well limited
- Systematised if contact with fissure
- Possible bronchogram

Aeric bronchogram
Bilateral tuberculous pneumonia with mediastinal hilar adenopathies and adenopathies in superior mediastinum

AFB positive in sputum

HIV +
Man, 30 years old. Dyspnea, fever, cough and weight loss over two months.

**AFB ++ in sputum: right superior lobe pneumonia.**

Notice the beginning of the lobe retraction and contralateral nodules: the association is highly indicative of TB.
Chest x-ray at the end of treatment. Retractile evolution with ascension of the right hilus.
17 y old boy, cough and worsening condition.

AFB+++ in sputum. HIV negative
CXR: left upper lobe TB excavated pneumonia + Right axillary TB infiltrate

Association of 2 lesions of different seniority is very typical of TB
Man, 80 years old, worsening condition, dyspnea, non productive cough, no available sputum

Bronchial aspiration: AFB+++
Tuberculous pneumonia
Retractile evolution with important sequelae
African officer an internship in France, t 38 °C, Good condition, No respiratory signs

Excavated opacity apical segment of Right Lower Lobe
Tuberculous pneumonia AFB +
Chest x-ray at the end of the TB treatment
TB pneumoniae are frequent in countries with a high incidence of TB, in HIV- patients, and also in case of AIDS: In this case adenopathies in the mediastinum are frequently associated, and the localisation in the inferior lobes is not rare. The lesions are often bilateral. If the immunosuppression is severe, the cavities are rare.
- Tuberculous pneumonia. HIV+, CD4< 100.
- Bilateral lesions (bad quality CRX, inadequate penetration and contrast)
- Localisation in middle lobe and left inf.
- Latero-tracheal adenopathy
- no cavitation

(notice metallic bilateral pictures: subcutaneous implant, local traditional medicine)
Man, 30 years old
HIV +

RSL pneumonia
hilar adenopathies
AFB x3 negative
Broncho-aspiration
and bronchio-alveolar
lavage: AFB+ +
Endoscopy: fistula from a
tuberculous adenopathy
Man HIV+, miliary, medastinal adenopathies (mediastinal enlargement), right pneumonia AFB+
But all pneumoniae are not tuberculous. The clinical context is vital for diagnosis…
Young man, no pathological antecedents, sudden onset of symptoms with fever, chills, thoracic pain.
Acute lobar pneumonia

(*Streptococcus pneumoniae*)
HIV+ context, cough and dyspnea, weight loss, subacute evolution.
Adenopathies in mediastinum and hilus area associated with middle lobe and left upper lobe pneumonia, HIV context: it is not an acute lobar pneumonia. It is a TB pneumonia.
Young woman, good health, 39-40°C fever for 48h, non-productive cough and right thoracic pain: Acute pneumonia (probable infection with S. pneumoniae)…
Woman 40 years old, no medical antecedents, fever and chills with acute onset: bilateral pneumonia with acute respiratory failure. Positive blood culture with *Streptococcus pneumoniae*
In cases of AIDS, if severe dyspnea, normal or subnormal auscultation, and *diffuse* non-excavated pneumonia, consider  PNEUMOCYSTOSIS
Mycoplasma pneumonia: resistant to amoxicilline; improvement with macrolides
Young man, severe dyspnea and fever, headache, abdominal pain, No improvement with amoxicillin...
• Pneumonia is a frequent clinical manifestation of tuberculosis in countries with a high incidence of TB.

• The lesions are often bilateral and associated with other lesions: nodules, adenopathies, cavities.

• AFB in sputum are often positive, but do not neglect the causes of false negatives: salivary sputum, patient too weak for reliable sputum, technical error, treatment begun before sampling.
Conclusions 2

• The tuberculous pneumoniae are frequent in cases of AIDS: All the lobes can be affected (particularly the inferior lobes) and are often associated with bulky adenopathies. In cases of severe immunodepression, cavitation is rare.

• Differential diagnosis with the other infectious pneumoniae is only possible with the history-taking and clinical examination, which must always be associated with the analysis of the chest radiography.
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