

Pathology Practical

1-Lobar pneumonia

- Clinical scenario: chest pain, dyspnea , fever, productive cough and may have hemoptysis
- Community acquired pneumonia: pneumococci(*Streptococcus pneumoniae*)
- Hospitalacquired pneumonia: *Pseudomonas* or Gram -
- Pathogenesis stages: 1-Congestion 2-Red hepatization3-Gray hepatization4-Resolution

2- Bronchopneumonia

Differences between lobar pneumonia and bronchopneumonia:

- Lobar pneumonia: Lobar.
- Bronchopneumonia: Patchy, on histopathology there is necrosis of the wall of the bronchi

3- Tuberculosis

- Clinical scenario: weightloss, loss of appetite, cough for the last 2 months, hemoptysis
- Simplestest: Mantoux test
- Diagnosis: sputum or biopsy
- Stain: Acid-Fast-Bacilli Ziehl-Neelsen stain

4-Emphysema

Clinical scenario: smoker, prolonged severe cough, barrel chest, lean forward

Types:

1. Centriacinar: (only the respiratory bronchiole is dilated)
2. Panacinar (respiratory bronchiole, alveolar duct, alveolar sacs and alveoli) **associated with $\alpha 1$ antitrypsin**
3. Paraseptal (peripheral) emphysema: the distal part and mostly in the peripheral part of lungs then in sub-pleural areas
4. Irregular emphysema: it affects various places

5-Bronchiectasis

- Clinical scenario: smoker, prolonged severe cough, associated with congenital disorders
- Causes: congenital and hereditary conditions like cystic fibrosis, immunodeficiency states, Kartagener syndrome, Post infectious, bronchial obstruction
- Complications: Cor pulmonale, Metastatic brain abscess, Amyloidosis, Pulmonary hypertension

6- Pulmonary embolus and infarction

- Clinical scenario: predisposing factors, sudden dyspnea, **Sudden DEATH**

Tumors

Types:

- Non-cell Carcinoma
 1. Squamouscell carcinoma
 2. Adenocarcinoma
 3. Largecell carcinoma
- Small cell carcinoma

Systematic effects of lung cancer

(Para-Neoplastic Syndromes)~ 5%

1. ADH (hyponatremia)“Oat cell carcinoma”
2. ACTH (Cushing)“Oat cell carcinoma”
3. PTH (Hyper-CA)
4. CALCITONIN (Hypo-CA)
5. GONADOTROPINS
6. SEROTONIN/BRADYKININ

10- Metastatic Tumor

- Metastatic carcinoma usually causes multiple lung nodules while primary tumors usually consist of a single hilar or peripheral mass.
- Patients with metastatic carcinoma usually give a history of previous organ resection for carcinoma.
- Lung is the most common affected organ

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