



Practical Pathology

Done By:

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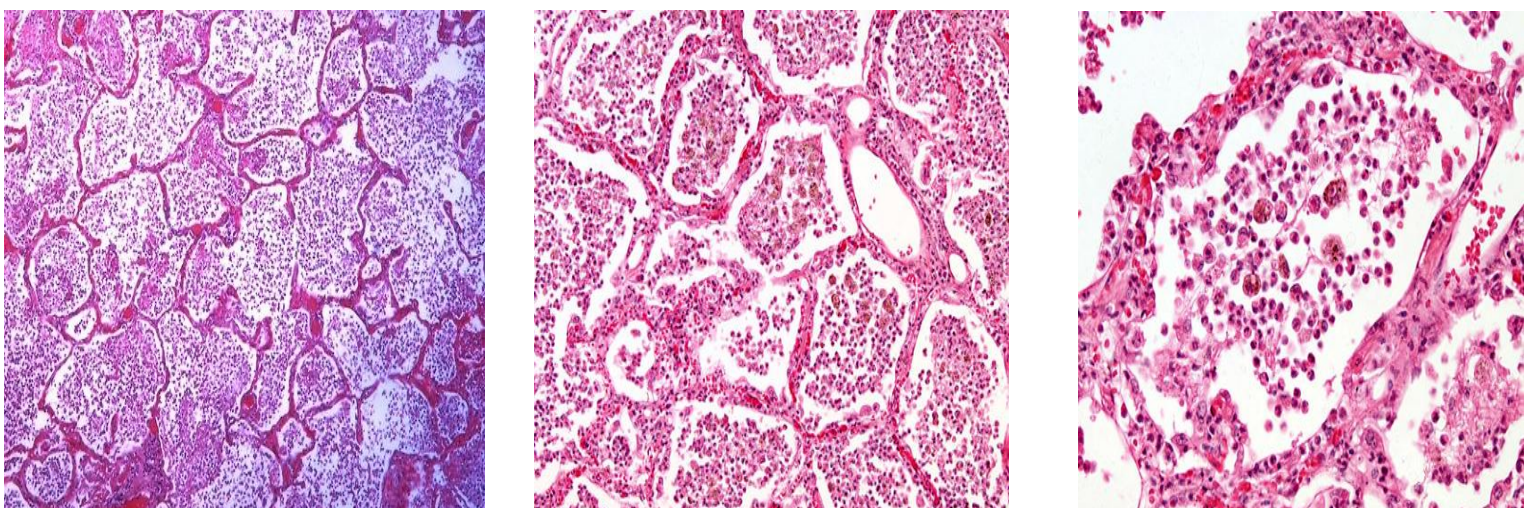
Revised by :

Nada Bin dawood

1- Lobar pneumonia:

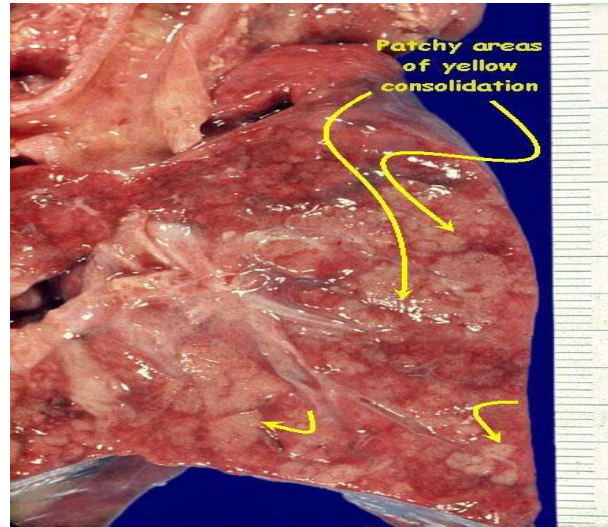
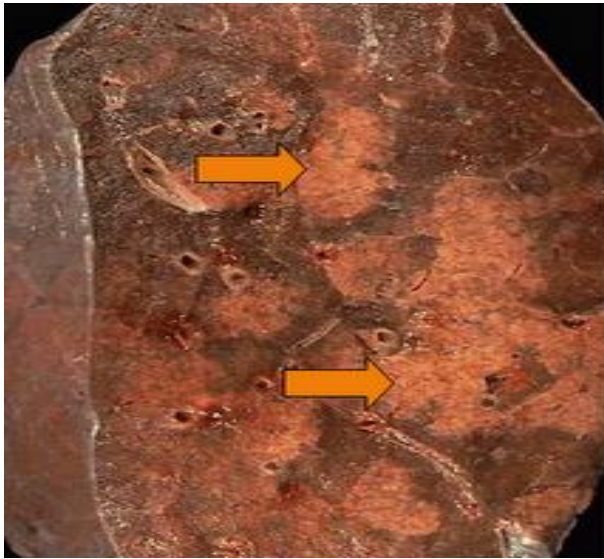


Gross: normal upper lobe, diffused consolidation of the lower lobe



Histology: diffuse abnormal alveolar spaces containing fibrinous exudates, RBCs, polymorphs and inflammatory cells. Congested alveolar wall

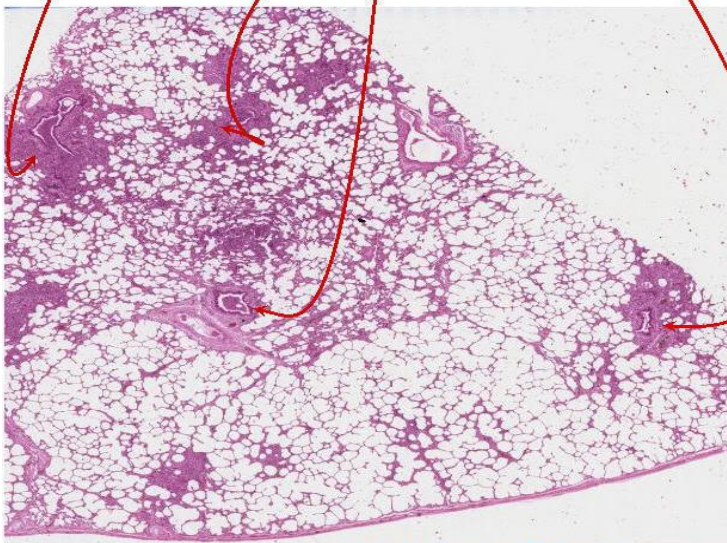
2- Bronchopneumonia:



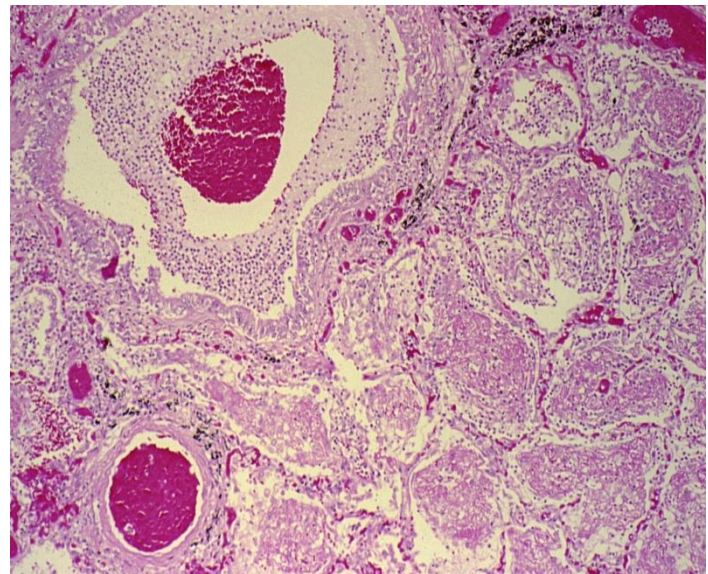
Labeled by: *Dr. R.M.* @ Sciencesway.com

Gross: patchy consolidation areas of both lobes around the cut surface area (bronchi).

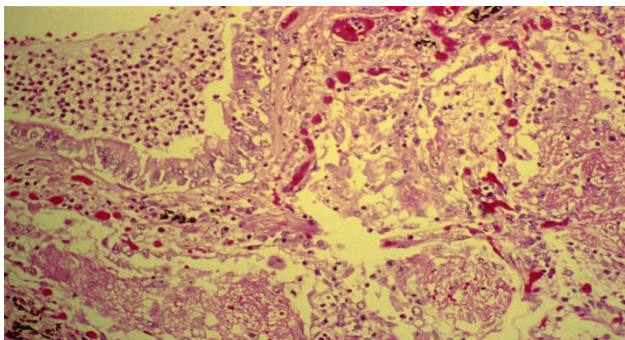
Acute Diffuse Suppurative Inflammation of the terminal bronchioles & their surrounding alveoli



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Histology: patchy consolidation around bronchioles, necrosis or ulceration of the bronchial wall. The alveoli contain inflammatory cells, polymorph and fibrin.



3- Tuberculosis of the lung:



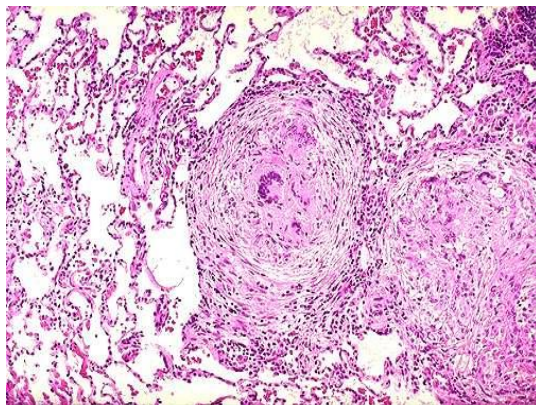
Gross: Ghon's complex "it consists of enlarged hilar and subpleural/peripheral necrotic lymph node.



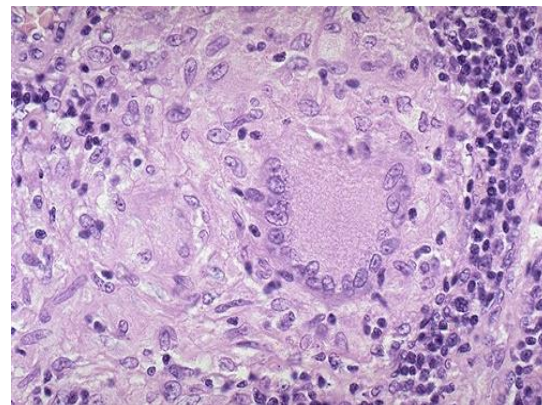
Gross: Several enlarged with caseous necrosis hilar lymph nodes.



Gross: Apical (Coin-like) lung lesion with cavitations and caseous necrosis.



Tuberculous pneumonia

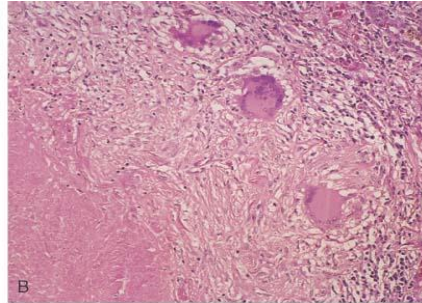
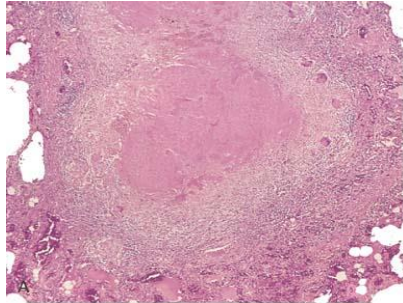


Tuberculous lymphadenitis

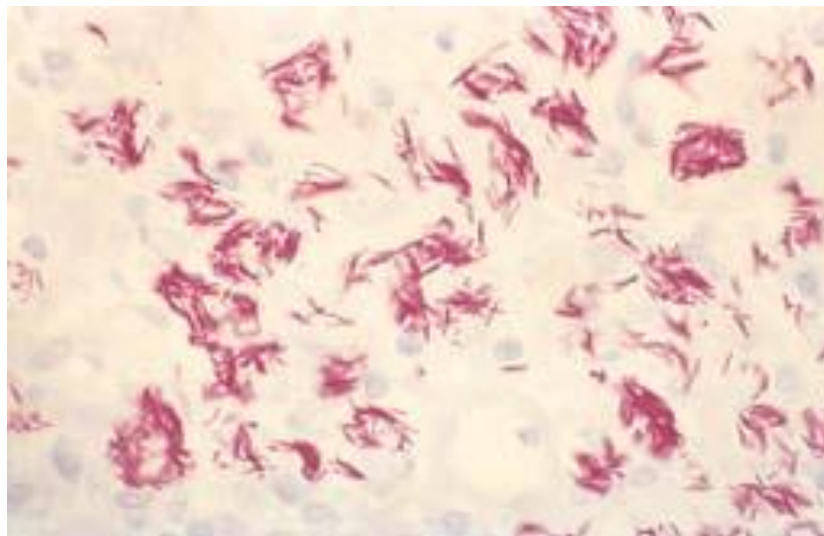
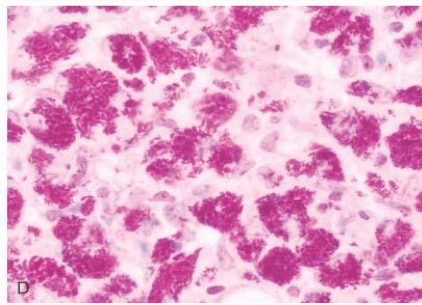
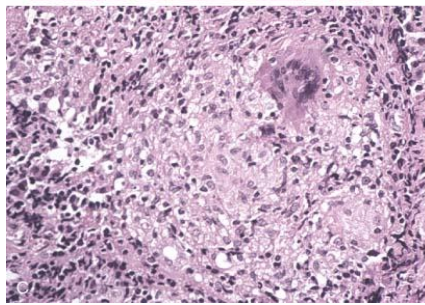
Histology of lung/or lymph node shows: Granulomas " it consists of: caseous necrosis, langhans giant cells, rim of lymphocyte & plasma cells , "**epithelioid histiocyte** "

Q: In which condition we see granuloma? Sarcoidosis, Tuberculosis.

caseous necrosis

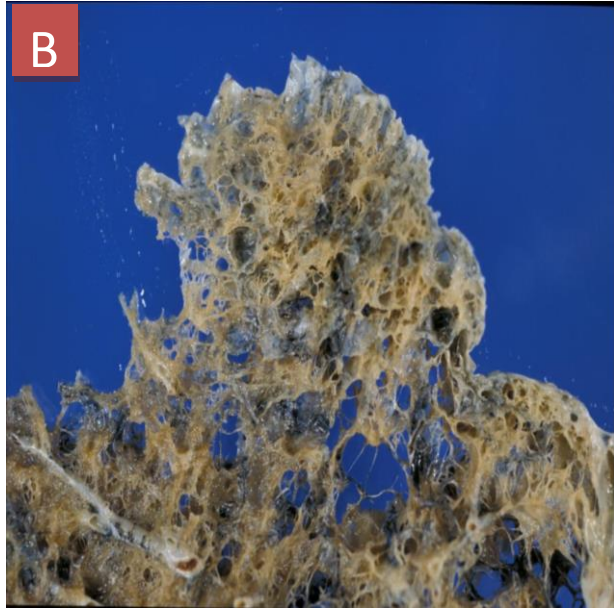


Langhan Giant cells



Microscopic: Ziehl-Neelsen stain shows numerous **ACID-FAST BACILLI** consisting with Mycobacterium Tuberculosis

4- Emphysema:



A: The lung shows: scattered emphysematous bulla in variable sizes. (larger than 1 cm)

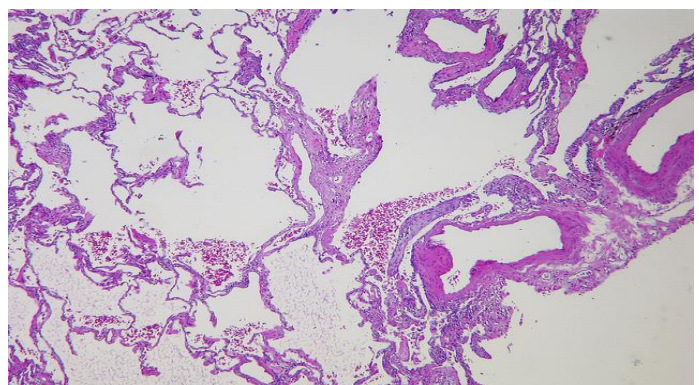
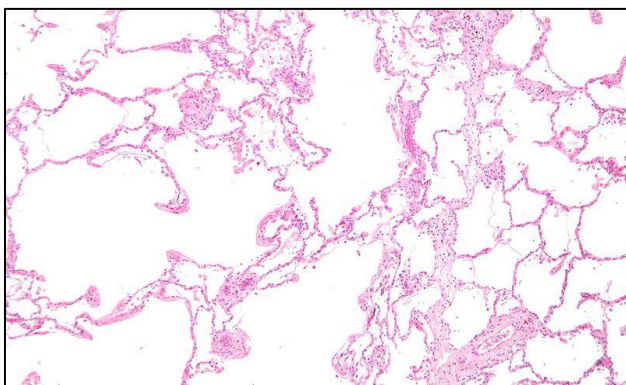
B: Panacinar emphysema with numerous dilation of the alveolar spaces (emphysematous spaces) with peripheral bullae.

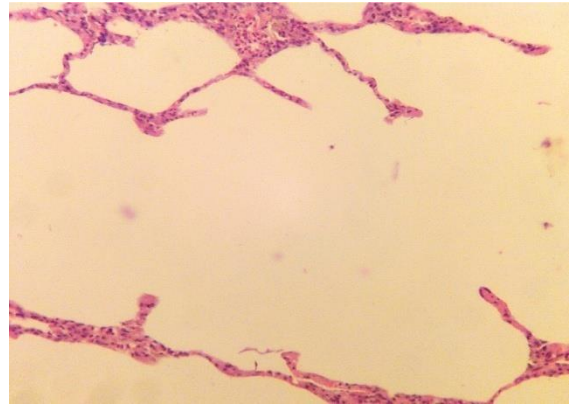
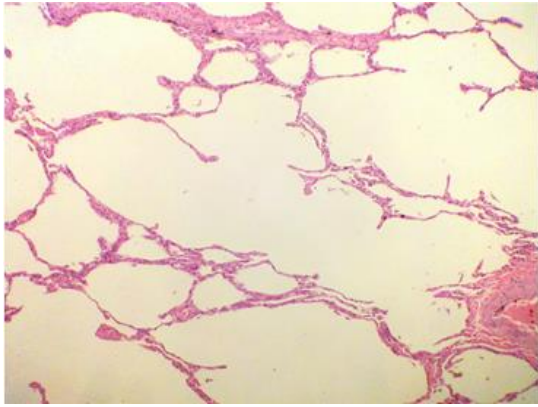
C: Centrilobular emphysema with

1- numerous dilation of the alveolar spaces (emphysematous spaces)

2- with peripheral bullae,

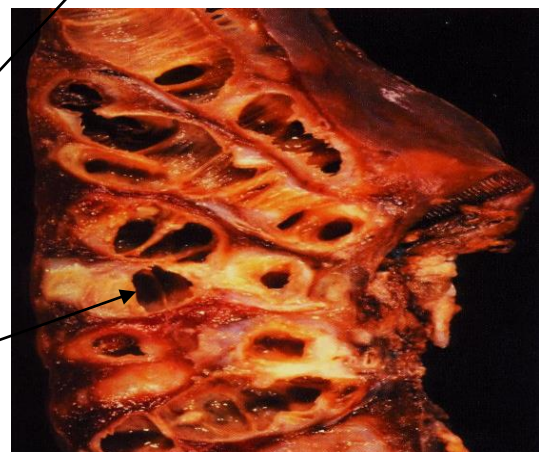
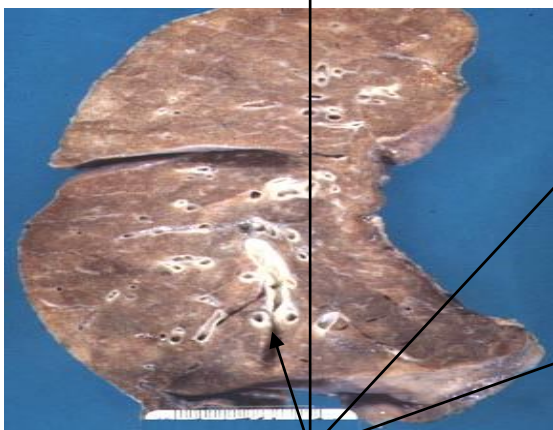
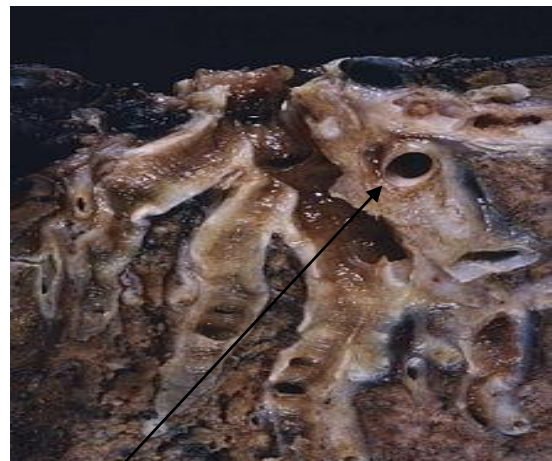
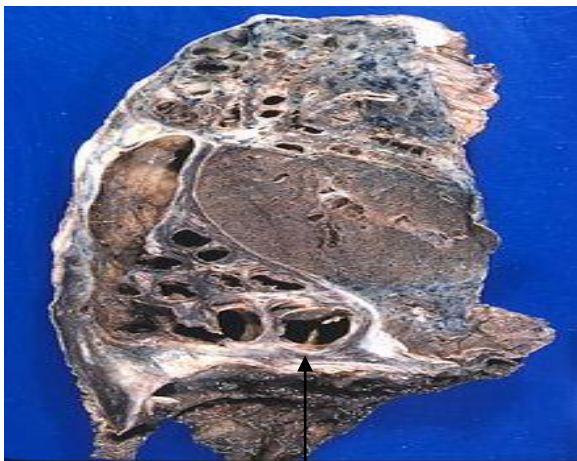
3- they are filled with carbon deposits



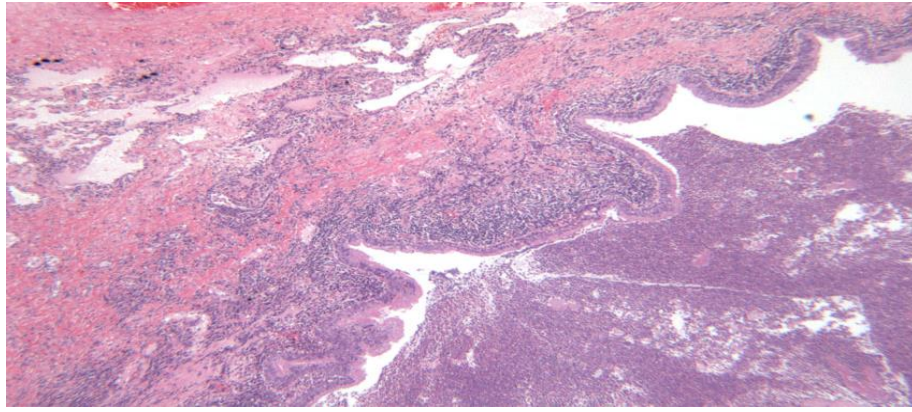


Histology: destruction of the alveolar wall leaving emphysematous spaces (dilatation of alveolar spaces), rupture of alveolar septa (formation of spurs), and thickening of the blood vessels,.

5- Bronchiectasis:

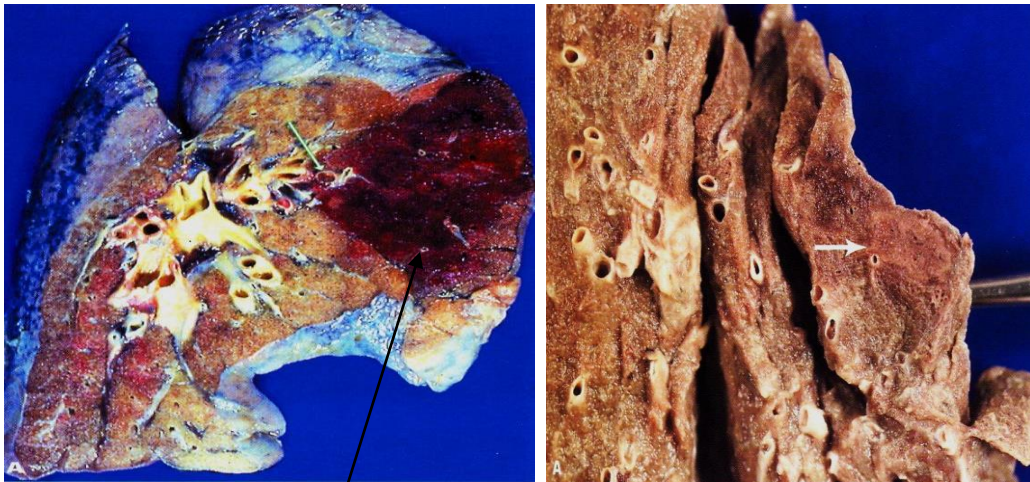


Gross: permanent dilation of the bronchi and bronchioles (destruction of the muscles) surrounded by fibrosis.



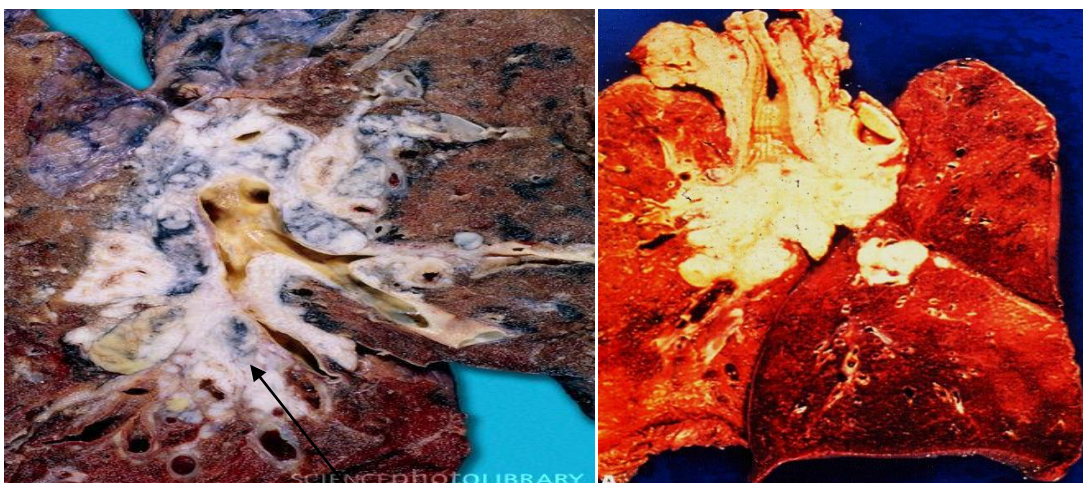
Histology: dilatation of the bronchus and fibrotic destructed wall, acute and chronic inflammatory cells.

6- Pulmonary embolus and infarction

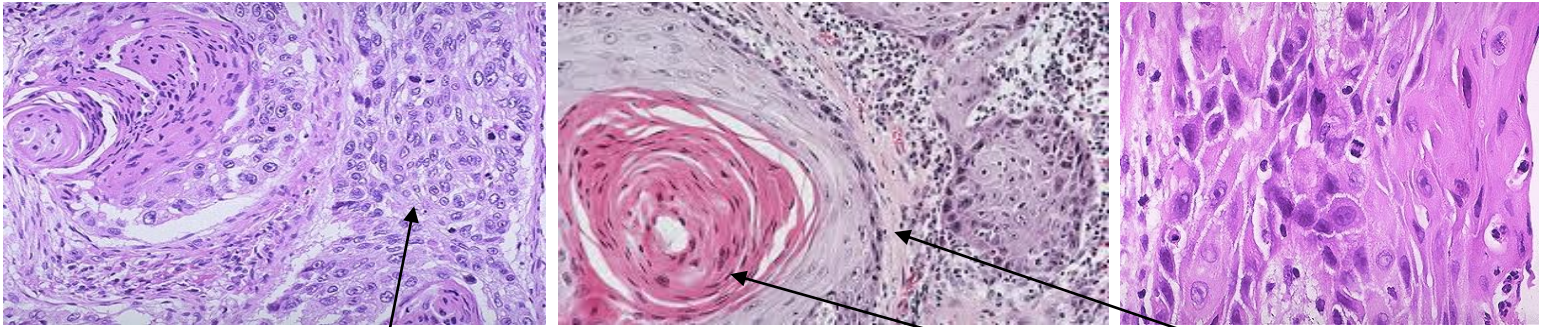


Gross: Triangular hemorrhagic infarction with pulmonary thrombosis

7- Squamous cell carcinoma of the lung



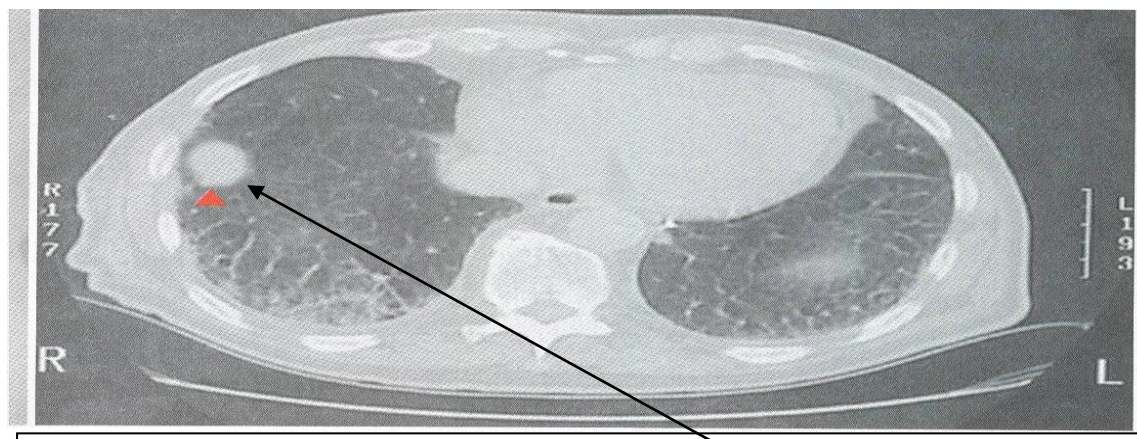
Gross: irregular and large hilar mass (whitish mass), Anthracotic in hilar lymph node



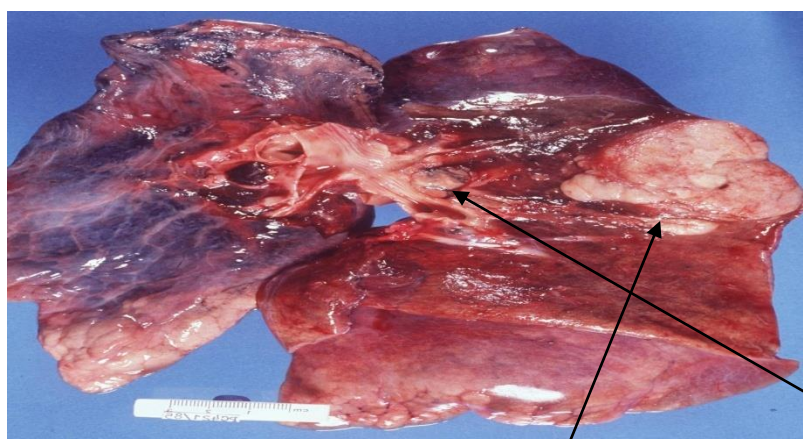
Histology: sheath of malignant squamous cell (Pleomorphism, hyperchromatism, mitoses), keratinization, and desmoplasia

Q: What does it secrete ? Parathyroid hormone related protein

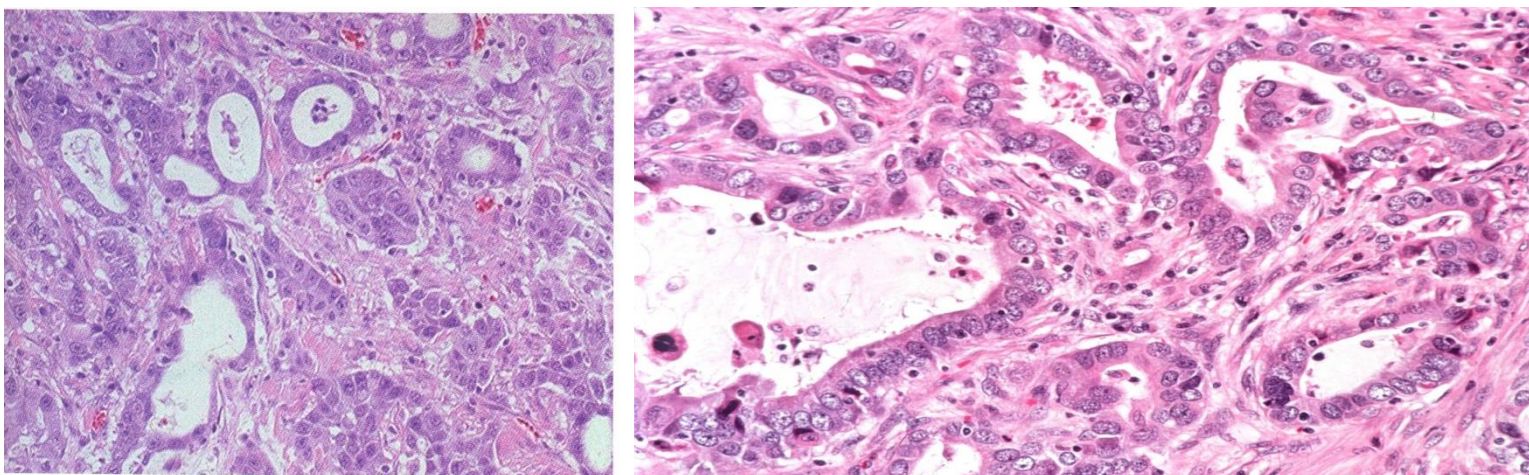
8- Adenocarcinoma of the lung



Chest CT-Scan shows peripheral or subpleura mass in right lung

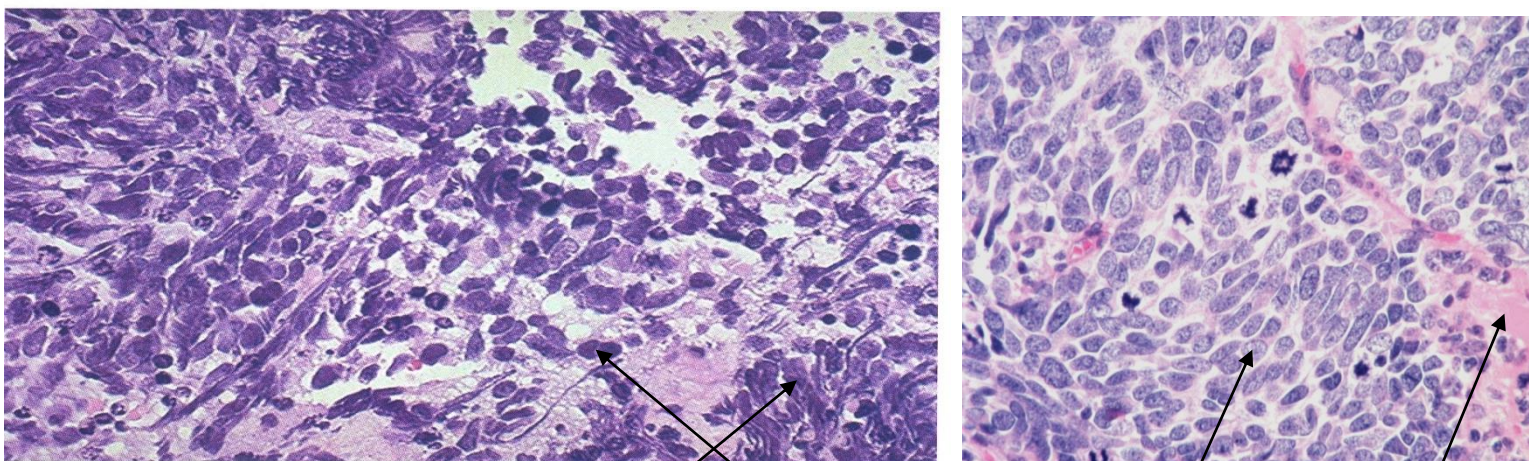


Gross: peripheral mass with enlarged hilar lymph node



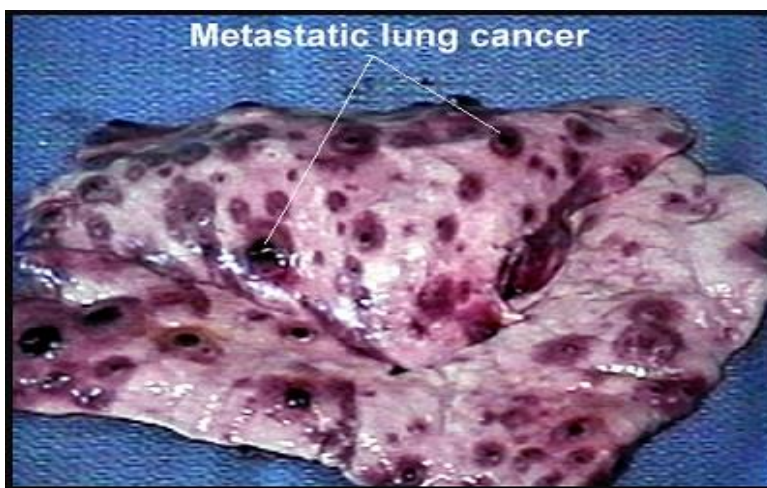
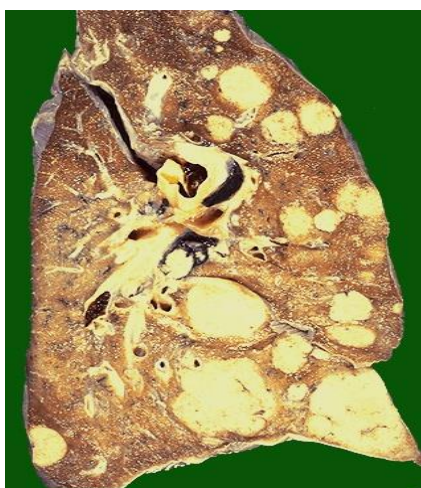
Histology: Crowded malignant glands (Pleomorphism, hyperchromatism, mitoses), desmoplastic stroma

9- Small cell carcinoma of the lung



Histology: Sheath of small round blue cell, crashed cell, nuclear molding, mitosis, salt and paper chromatin, and focal necrosis

10- Metastatic Tumors:



Gross: Multiple congested hemorrhagic lung nodules with variable sizes