



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



PATHOLOGY

# Final | Lectures (1-7) + Lab Past Papers

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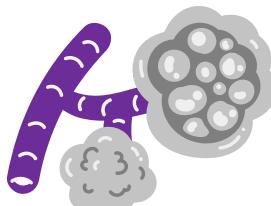
Zeina Yassin

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﴿وَلَقَدْ نَعْلَمُ أَنَّكَ يَضيقُ صَدْرُكَ بِمَا يَقُولُونَ ﴾١٧ فَسَبِّحْ بِحَمْدِ رَبِّكَ وَكُنْ مِّنَ السَّاجِدِينَ ﴾

سبحان الله وبحمده، سبحان الله العظيم



قبل ما تبليشوا احكوا بسم الله، واحمدو ربنا على نعمة الصحة والعافية

{ الحمد لله الذي عافانا مما ابتلي به غيرنا وفضلنا على كثيرٍ من خلق تفضيلا }

# **Lecture (1):**

# **Granulomatous Diseases**

Q1: : Which of the following is true regarding hypersensitivity pneumonitis:

- A. it mainly affects the bronchi.
- B. affects the lower lobes mostly.
- C. We need radiology and biopsy for the diagnosis of the acute form of the disease.
- D. Negative skin test

Ans: D

Q2 : Which of the following is true regarding sarcoidosis:

- A. nodes are matted and painful.
- B. uveitis is the most common in eye involvement
- C. non caseating granulomas are common in erythema nodosum.

Ans: B

Q3: :True about sarcoidosis

- A) Higher prevalence in smokers
- B) Mainly occupational disease
- C) In liver it manifests as granulomas surrounding central veins
- D) In more than 50%, it causes granuloma in spleen

Ans: D

Q4: What's specific for sarcoidosis?

- A) Non-caseating necrosis
- B) Schaumann bodies
- C) Asteroid bodies
- D) none of the above

none of the listed options are specific (pathognomonic) for sarcoidosis, they can also be seen in other granulomatous disorders.

Ans: D

Q5: Wrong about sarcoidosis

Ans: Subcutaneous nodules indicate acute sarcoidosis

Q6: Wrong restrictive lung disease

Ans: Hypersensitivity pneumonitis is caused by type 1 hypersensitivity

Q7: Regarding sarcoidosis one of the following is CORRECT:

- A) hypercalcemia in sarcoidosis isn't related to bone destruction
- B) the presence of non-caseating granuloma in lung biopsy is diagnostic
- C) Asteroid bodies are laminated concretions that contain calcium
- D) The non-caseating granulomas are centered within the alveolar spaces
- E) Corneal opacification are the most common presentation of eye involvement

Ans: A

Q8: wrong about Hypersensitivity pneumonitis:

Ans: Obstructive disease

Q9: The epithelioid cells is formed by:

- a) activated Lymphocytes
- b) activated macrophages
- c) Non of the above

Ans: b

Q10: Restrictive lung disease show .....

- a) Increased total lung capacity
- b) Reduced total lung capacity
- c) Airway obstruction
- d) Non of the above

Ans:b

Q11: occurs in almost cases of restrictive lung disease:

- a) Alveolitis
- b) Bronchitis
- c) Interstitial pneumonitis
- d) A & C

Ans: d

Q12: All are true about clinical features of restrictive lung disease patients Except:

- a) Dyspnea
- b) Tachypnea
- c) Cyanosis
- d) Wheezing

Ans:d

# **Lecture (2):**

# **Fibrosing Diseases**

Q1: : Which of the following is correct:

- a) Silicosis affects the lower lobe of lungs.
- b ) Bronchiectasis involves the upper lobe
- c) Nonspecific interstitial pneumonia predominant the lower lobe reticular opacities
- d) Asbestos is centered in the upper zone of lung.

Ans: c

Q2: Correct match:

- A) Sarcoidosis — Caseating granuloma
- B) Usual interstitial pneumonia — Schumann bodies
- C) Silicosis — Masson bodies
- D) Non-Specific Interstitial Pneumonia (NSIP) — Fibroblastic foci
- E) Cryptogenic organizing pneumonia — Masson bodies

Ans: E

Q3: Hypercalcemia is associated with

- A) Increased conversion of vitamin D to calcitriol by granulomas
- B) Increased intestinal calcium absorption due to elevated ACE levels
- C) Bone resorption from sarcoid granulomas
- D) Impaired renal calcium excretion due to sarcoid nephropathy

Ans: A

Q4: Intraalveolar fibrosis with patchy air space consolidation

- A) Cryptogenic Organizing pneumonia
- B) Carcinoid syndrome
- C) Nonspecific interstitial pneumonia

Ans: A

Q5: Temporal heterogeneity is found in

Ans: Idiopathic pulmonary fibrosis

Q6: Regarding cobble stone appearance of the pleural surface which statement is correct?

- A) Associated with usual interstitial pneumonia pattern (UIP) of fibrosis
- B) Characteristic of pleural involvement by malignant mesothelioma
- C) Happens due to lung hyperinflation and air trapping
- D) Associated with miliary pulmonary tuberculosis
- E) Characteristic of non-specific interstitial pneumonia (NISP)

Ans: A

Q7: Which of the following is wrong about IPF:

Ans: Patients have productive cough

Ans:

Q8: wrong about cryptogenic organizing pneumonia:

Ans: Only treatment is lung transplant

Ans:

Q9: Which is wrong:

Ans: IPF appears under the microscope as desquamated

# Lecture (3): Pneumoconiosis

Q1: In which of the following diseases lymph node could be involved:

- A) Sarcoidosis
- B) TB
- C) Silicosis
- D) Sarcoidosis & TB
- E) All of above

Ans: E

Q2 : A 70 year old patient came with dyspnea, he worked 40years in painting & insulation. in examination we will find.

- A) Bilateral hilar lymphadenopathy
- B) Ground glass in upper lobes
- C) Silicotic nodules
- D) Pleural effusion
- E) Anthracosis

Ans: D

Q3 : Which of the following is true:

Ans: Mesothelioma is a malignant tumor that is associated with asbestos exposure.

Q4 : True statement:

- A) Emphysema in coal workers occurs only in smokers
- B) Coal workers can develop emphysema independently of smoking
- C) Asbestosis primarily causes pleural plaques without parenchymal interstitial fibrosis
- D) Asbestos exposure only affects upper lobes

Ans: B

Q5: Choose the true statement:

- A. silica cannot be fully digested by macrophages
- B. amorphous Silica is the most toxic and fibrogenic form of silica
- C. asbestosis begins in the upper lobes

Ans: a

Q6: True about coal dust pneumoconiosis:

- A. Coal workers may develop emphysema independent of smoking
- B. increased risk of lung carcinoma in coal miners
- C. Coal workers always develop progressive massive fibrosis

Ans: A

Q7: Choose the true sentence

- A) hyalinized collagen fibers are found in silicosis
- B) asbestos bodies are golden brown rounded structures
- C) pleural plaques contain  $\text{Ca}^{++}$  and iron

Ans: A

Q8: True sentence that

Ans: coal worker's pneumoconiosis is found in the upper lobes of the lung, so are silicosis nodules

Q9: Not a lung lesion caused by asbestosis

Ans: visceral pleural plaques

\*Parietal not visceral.

Q10: Wrong about fibrosing lung diseases

Ans: PMF is specific to coal-worker pneumoconiosis

Q11: Which of the following is associated with slowly progressive restrictive lung disease showing whorls of concentrically arranged hyalinized collagen bundles surrounding amorphous center?

- A) Coal dust
- B) Tobacco smoke
- C) Mushroom
- D) Crystalline silica
- E) Asbestos

Ans: D

Q12: Wrong about coal-worker:

Ans: a definitive correlation with lung cancers is proven

Q13: Not a lung lesion caused by asbestosis

Ans: visceral pleural plaques

Q14: Regarding pneumoconiosis which is correct?

- A) The most dangerous mineral dust particle range in size between 5-10  $\mu\text{m}$ B)
- B) Tobacco smoking worsens the effect of all inhaled minerals dust except for asbestosis
- C) Simple coal worker pneumoconiosis is associated with centre-acinar emphysema
- D) The pure form of quartz is less fibro-genic and toxic than mixed form
- E) Asbestosis is associated with increased risk of primary tuberculosis

Ans: c

Q15: Inhalation of coal without fibrosis:

Ans: anthracosis

Q16: Which is wrong about silicosis:

Ans: amorphous form is more toxic than crystalline form.

Q17: Choose the wrong statement:

Ans: asbestos and smoking more chance of mesothelioma

Q18: All are diseases of lower lobes except

- A) Asbestosis
- B) Idiopathic pulmonary fibrosis (UIP pattern)
- C) Nonspecific interstitial pneumonia (NSIP)
- D) Aspiration pneumonia
- E) Silicosis

Ans: E

Q19: Choose the wrong statement:

Ans: Asbestos bodies brown in pleural plaques

Q20: True sentence that

Ans: Both pleural and peritoneal mesothelioma are caused by asbestosis.

Q21: coal workers may develop?

- A) chronic bronchitis
- B) pneumoconiosis
- C) emphysema
- D) all of the above

Ans: D

Q22: the most common site of involvement in coal workers pneumoconiosis are:

- A) middle lung lobes
- B) lower lung lobes
- C) upper lung lobes
- D) near the pleura

Ans: c

Q23: Exposure to coal dust increases the risk of:

- A) paraseptal emphysema
- B) irregular emphysema
- C) panacinar emphysema
- D) centriacinar emphysema

Ans: D

Q24: When the quartz is mixed with other minerals--> the fibrogenic effect of is reduced.

- A) True
- B) False

Ans: A

Q25: silicotic nodules are seen mostly in:

- A) Upper zones of the lung
- B) B) near the trachea and main bronchi
- C) Lower zones of the lung
- D) pleaural surfaces

Ans:A

Q26: Regarding asbestos bodies, one of the following statements is correct:

- A) translucent
- B) pleural lesion
- C) zinc containing coat

Ans: A

Q27: the lower lung lobes are affected predominantly in:

- A) silicosis
- B) asbestosis
- C) complicated coal worker's pneumoconiosis
- D) simple coal worker's pneumoconiosis

Ans: B

Q28: Leads to mesothelioma :

- A) Anthracosis
- B) silicosis
- C) Asbestosis
- D) Berylliosis

Ans: C

# Lectures (4+5): Lung Tumors

Q1: correct regarding adenocarcinoma:

Ans: it is associated with hypertrophic pulmonary osteoarthropathy

Q2: 69 year old gentleman, presented with cough and a 7 kg weight loss over the past 3months and enlarged mass in chest. Biopsy shows a combination of cuboidal and spindled cells. Labs shows he is TTF-1 negative, does not express neuroendocrine markers , also no keratin pearls are seen. which of the following conditions will be mostly seen in this patient:

- A. distant metastasis
- B. excessive ADH secretion
- C. extensive pleural fibrosis

Ans: c

Q3: Which of the following is true:

Ans: Mesothelioma is a malignant tumor that is associated with asbestos exposure.

Q4: Which of the following is true ?

Ans: Horner syndrome is related to an apical neoplasm

Q5: All of the following statements are true except?

Ans: SCLC can be treated with surgery

Q6: Choose the correct statement:

Ans: there's no relationship between CWP and lung cancer

Q7: hypercalcemia as a paraneoplastic syndrome is mostly associated with:

- A) small cell carcinoma
- B) carcinoid tumor
- C) Squamous cell carcinoma
- D) adenocarcinoma
- E) large cell carcinoma

Ans: c

Q8: Apical neoplasms that may Invade the brachial or cervical sympathetic plexus, is called:

- A) pancoast tumor
- B) carcinoid syndrome
- C) superior vena cava syndrome
- D) horner syndrome

Ans: A

Q9: Regarding lung tumors, one of the following is CORRECT:

- A) Small cell carcinoma is the most common type
- B) Lung hamartomas are classified as developmental anomalies
- C) Squamous cell carcinoma are the most common tumors in women
- D) Most carcinoids are peripherally located in the lung
- E) Mesothelioma can be epithelial, sarcomatous, or mixed

Ans: E

Q10: Which of the following is correct about paraneoplastic syndromes:

Ans : Clubbing of the fingers with 5cm Adenocarcinoma

Q11: Which of the following is a wrong combination in paraneoplastic syndrome:

Ans : cushing syndrome - squamous cell neoplasm.

Q12: Paraneoplastic hypercalcemia:

Ans : squamous cell carcinoma

Q13: tobacco smoking increases the risk of mesothelioma :

- A) True
- B) False

Ans:B

Q14: Mass that contains large cells, with large nuclei and prominent nucleoli, and show no glandular or squamous differentiation, what is the diagnosis ?

- A) Squamous cell carcinoma
- B) Large cell carcinoma
- C) Carcinoid
- D) Small cell carcinoma

Ans: B

Q15: Case about man with chronic cough and weight loss, clubbing of fingers, X-Ray shows left sub-pleural proliferation, lung biopsy shows glandular formation, TTF-1 immune stain is positive, what is your diagnosis?

- A) Adenocarcinoma
- B) Squamous cell carcinoma
- C) Small cell carcinoma
- D) Large cell neuroendocrine carcinoma
- E) Sarcomatous mesothelioma

Ans: A

Q16: A 60 years old smoker, with a central lung tumor, it's most likely to be:

Ans : Squamous cell carcinoma

Q17: Which of the following is correct about small cell carcinoma:

ANSWER : No keratin histologically

Q18: Which is wrong:

ANSWER : peripheral involvement of the lung in Squamous cell carcinoma

Q19: Minimal invasive adenocarcinoma:

ANSWER : less than 3 cm tumor

Q20: Non smoker, thrombosis, peripheral primary cancer:

ANSWER : adenocarcinoma

# Lecture (6): Tuberculosis

Q1: Which of the following is true:

- A) Primary TB is not infectious
- B) Regional lymph nodes are less involved in secondary TB
- C) 80% of primary TB becomes secondary

Ans: B

Q2: what is the Correct match?

Ans: *Mycobacterium bovis* — oropharyngeal TB

Q3: Choose the correct statement:

- A) *M. Avium* is contacted by unpasteurized milk.
- B) *Mycobacterium bovis* causes oropharyngeal tuberculosis.

Ans: B

Q4: which of the followings is mostly contracted by drinking contaminated milk?

- A) *M.tuberculosis hominis*
- B) *Mycobacterium avium complex*
- C) *Mycobacterium bovis*

Ans: c

Q5: upon the initial exposure to mycobacterium tuberculosis, one of the following is correct:

- A) The patient presents with prominent clinical signs and symptoms
- B) Seeding of multiple sites can happen
- C) IFN- $\gamma$  is secreted from the activated macrophages
- D) Epithelioid granuloma formation

Ans: B

Q6: Regarding secondary tuberculosis, one of the following statement is correct?

- A) Localized to the lung apex
- B) No central caseation
- C) No increased risk of infectivity
- D) More than half of patients with primary disease developed secondary tuberculosis

Ans: A

Q7: acid fast mycobacterial means that once the bacterium is stained , it cannot be decolorized using acids routinely used in the process:

- A) True
- B) False

Ans: A

**Q8: PPD:**

Ans: tuberculin skin test

**Q9: False positive tuberculin test:**

Ans: atypical mycobacteria

**Q10: male associated with ghon complex in routine x ray ?**

Ans: can transmit disease to others

Q11: which of the following is correct about TB ?

- A) Secondary TB is localized in the lower lobe
- B) *Mycobacterium bovis* causes oropharyngeal TB
- C) *Mycobacterium avium* complex causes disease in 3% of AIDS patients

Ans: B

Q12: Regarding primary pulmonary TB is correct?

- A) T-cell mediated immune response develops within the first 30 minutes after exposure
- B) Bacteremia is usually asymptomatic or associated with mild symptoms
- C) The first step after mycobacteria entry is the activation of phagolysosome killing
- D) TNF Mobilizes anti microbial defensins against the mycobacteria
- E) IL-12 stimulate expression of inducible nitric oxide synthase to produce nitric oxide

Ans: B

Q13: Regarding TB , one of the following is correct?

- A) *Mycobacterium avium* complex is associated with intestinal TB
- B) Pulmonary TB is associated with extensive lymph node involvement
- C) 95% of primary TB causes develops a progressive disease
- D) Apical lung involvement is characteristic of secondary TB

Ans: D

# **Lecture (7):**

# **Vascular lung disease**

Q1: Good pasture is associated with:

- a) IgG finding in alveolar septa is diagnostic
- b) Necrotizing hemorrhagic interstitial pneumonia
- c) Associated with PR3-ANCA

Ans: b

Q2: Choose the true statement:

- A. large emboli are associated usually with alveolar hemorrhage
- B. most thromboemboli are clinically silent

Ans: B

Q3: Regarding goodpasture syndrome, which of the following is correct:

- A. might result in rapidly progressive glomerulonephritis
- B. affects mainly the lungs and the liver

Ans: A

Q4: Which disease produces antibodies against collagen in glomeruli?

Ans: Goodpasture

Q5: Which of the following is true about pulmonary embolism?

- A) The more peripheral the embolic occlusion the lower the risk for infarction
- B) %40 of them are silent
- C) Consequences are only determined by the size of embolus
- D) Small emboli cause alveolar hemorrhage

Ans: D

Q6: Which of the following is true about Good pasture syndrome?

- A) Autoimmune disease affect the lungs only
- B) IgG granular deposition in the lung are diagnostic
- C) Results in necrotizing hemorrhage interstitial pneumonitis
- D) Predominance in females

Ans: c

Q7: Regarding pulmonary embolism, which statement is correct:

- A) Large saddle PE are associated with no histologic alteration
- B) Most PE arise from thrombi in the heart ventricle
- C) Pulmonary infarcts are usually in the upper lobe
- D) The most common symptom of PE is progressive dyspnea
- E) Bone marrow embolism is common in IV drug abusers

Ans: A

Q8: Which of the following is wrong about goodpasture disease:

Ans: only treatment is renal transplant

Q9: Which is wrong:

Ans: 30% of the cases of pulmonary embolism end in pulmonary infarction

Q11 : Pulmonary hypertension is defined as pressures of 10 mm Hg or more at rest

- A) True
- B) False

Ans: B

Q10: Which is wrong:

Ans: idiopathic pulmonary hemosiderosis is associated with circulating antibodies against basement membrane collagen

Q12: one of the following diseases is associated with kidney injury are caused by circulating autoantibodies against certain domains of type IV collagen:

- A) Goodpasture syndrome
- B) Idiopathic pulmonary hemosiderosis
- C) Granulomatosis with polyangiitis
- D) pulmonary hypertension
- E) pulmonary embolism

Ans: A

tuft of capillary formations that spans the lumens of dilated thin-walled, small arteries is called

- A) internal thickening
- B) medial hypertrophy
- C) hyaline arteriolosclerosis
- D) plexiform lesion

Ans: d

Most of Pulmonary Emboli arise from thrombi within the:

- A) deep veins of leg
- B) pulmonary veins
- C) pulmonary arteries
- D) heart cavity

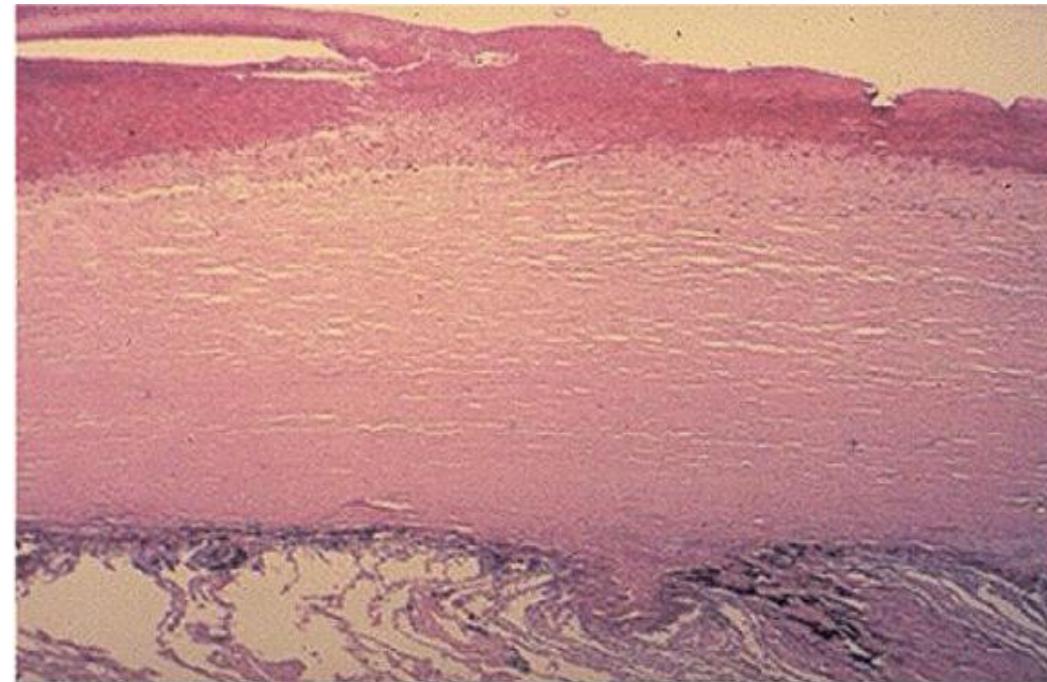
Ans: A

# LAB



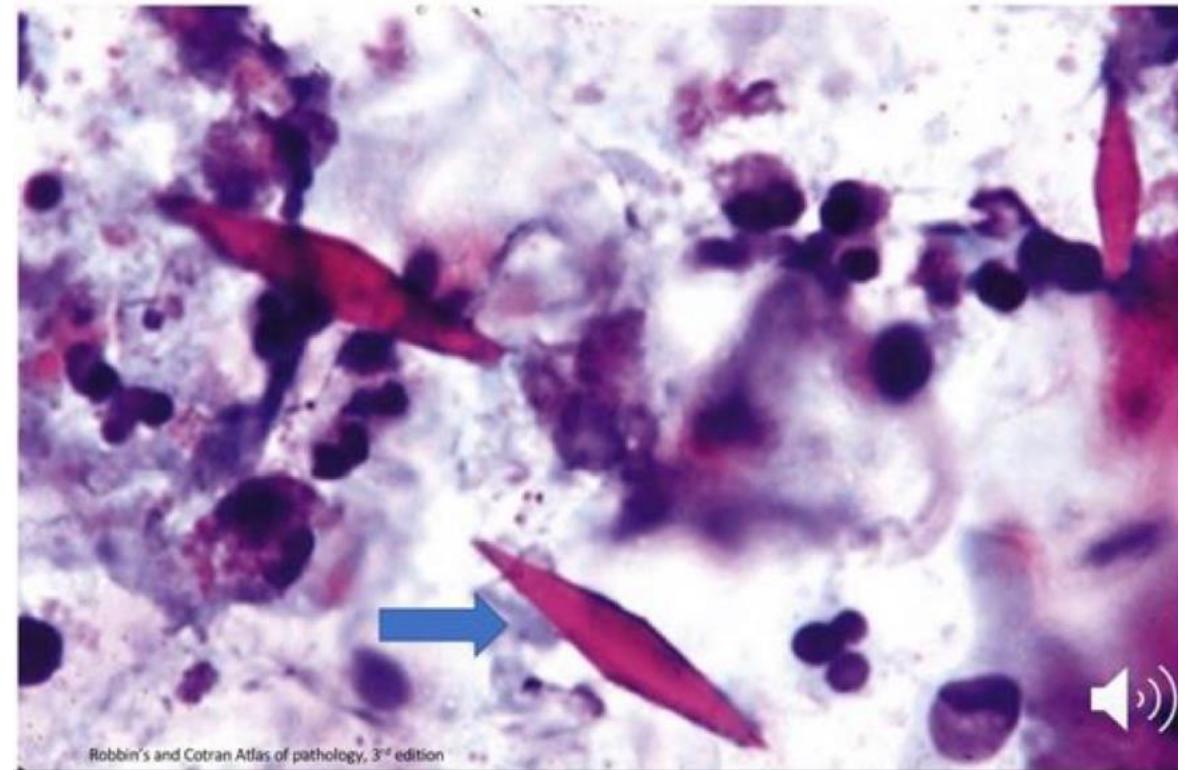
Q1: Identify the following structure:

Ans: Fibrous pleural plaque



Q2: Identify the following structure:

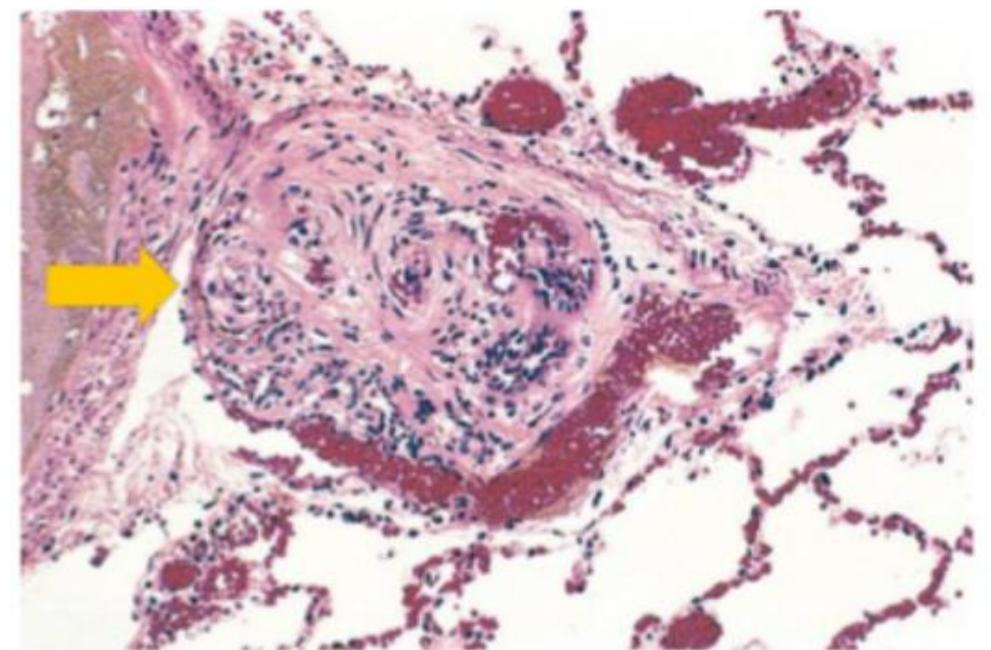
- A) Charcot-Leyden crystals
- B) Schaumann body
- C) Asteroid body



Ans: a

Q3: the following is associated with ?

- A. pulmonary hypertension
- B. thrombus within the lumen of one of the small pulmonary arteries



Ans: A

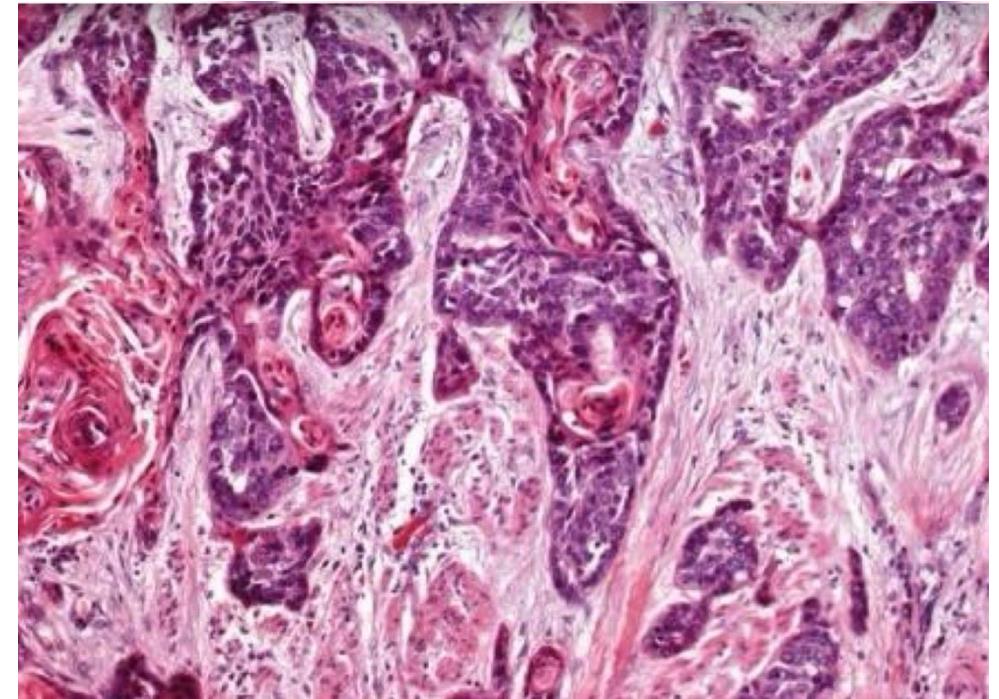
Q4: Correct statement about this structure:

Ans: Coated with an iron containing material.



Q5: what is the diagnosis ?

Ans: Squamous cell carcinoma.



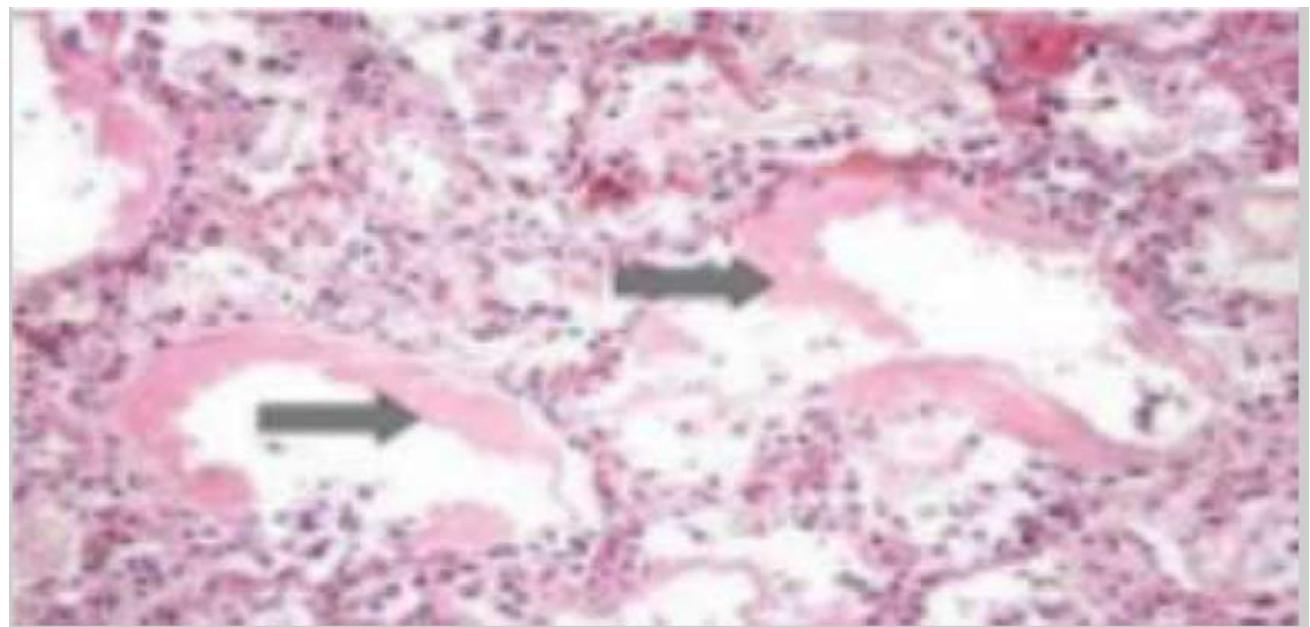
Q6: identify the following:

Ans : Curschmann spirals



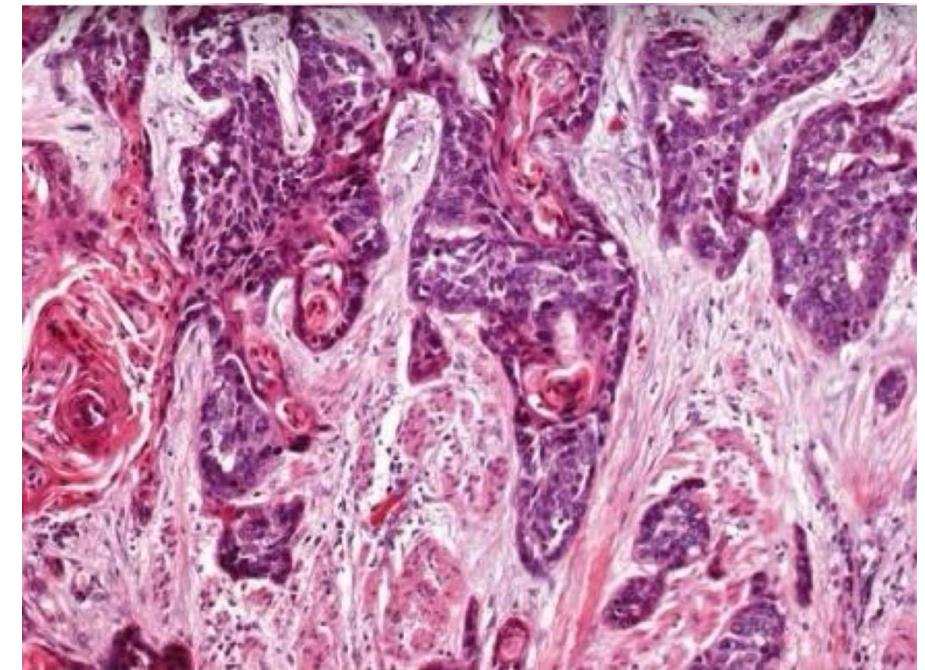
Q7: These clear structures represent:

Ans : ARDS



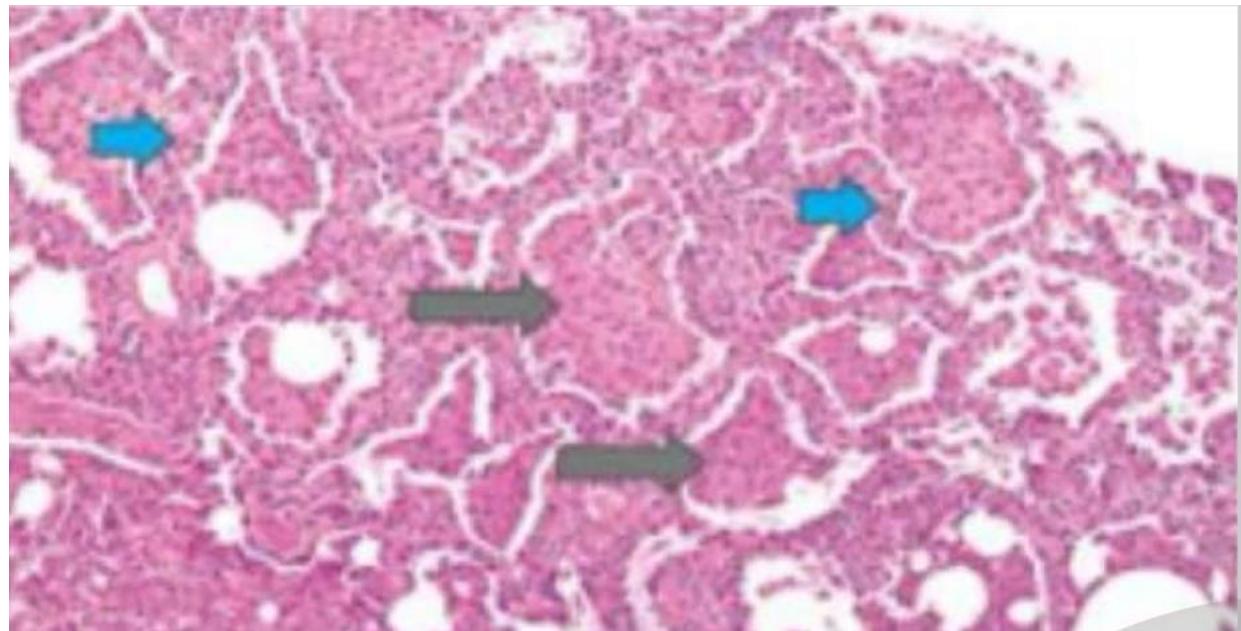
Q8: Smoker for 15 years, choose the right answer about this case?

Ans :something about squamous cell carcinoma



Q9: This section shows:

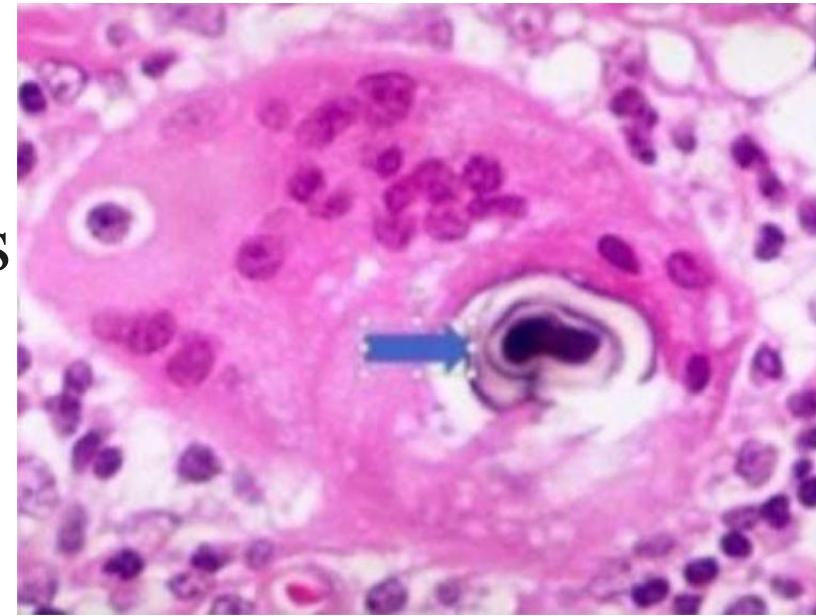
- A) Severe restrictive abnormality
- B) Moderate restrictive abnormality
- C) Mild restrictive abnormality
- D) Mild eosinophilia



Ans : C

Q10: Regarding the pointed structure in the figure below, one of the following statements is CORRECT:

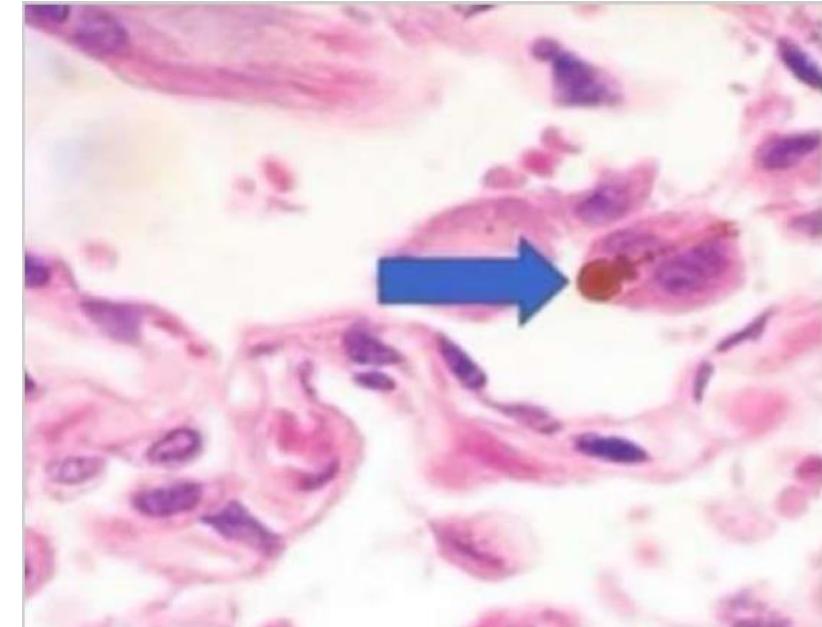
- A) Specific for sarcoidosis
- B) Can be seen in granulomas related to tuberculosis
- C) Made of shed epithelial cells
- D) Desmosomes connecting squamous cells
- E) Stellate structures within a macrophage



Ans : B

Q11: Which of the following is true regarding the pointed structure or the disease causing it?

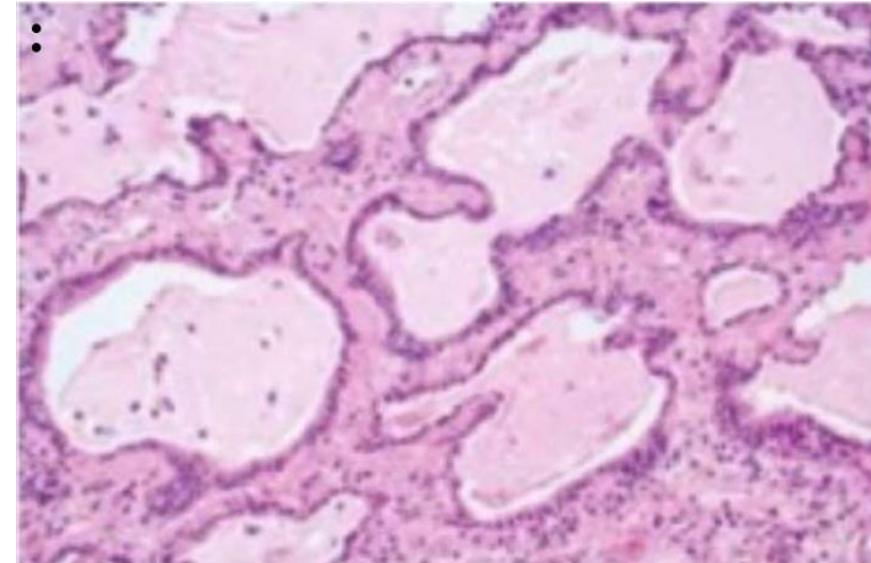
- A) Made of hemosiderin containing proteinaceous material
- B) Progressive worsening dyspnea
- C) Increased lung compliance
- D) The risk of lung cancer is not increased
- E) Caseating granuloma is characteristic



Ans :A + B

Q12: Regarding the histologic findings in the figure below, one of the following statements is CORRECT:

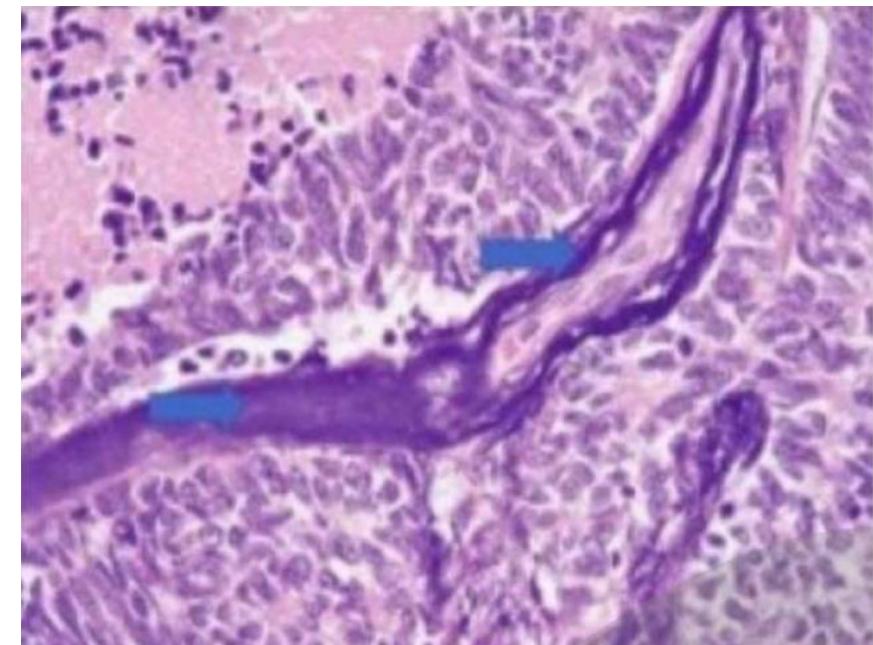
- A) The etiology of the underlying disease is difficult to be determined
- B) The etiology of the underlying disease is always related to granulomatous diseases
- C) The etiology of the underlying disease is always related to smoking related diseases
- D) The etiology of the underlying disease is always related to atelectasis



Ans : A

Q13: Which of the following is true regarding the disease shown in the following section:

- A) The arrows point to desmosomes.
- B) Grow as mucosal plaques that penetrates bronchial wall.
- C) Associated with cigarette smoking.
- D) Strongly related to asbestos exposure.
- E) The tumor is most likely cured by surgery.



Ans : c

الحمد لله،

اللهم إني أستودعك ما قرأت وما حفظت وما تعلمت، فرده إليك عند حاجتي إليك، إنك على كل شيء قادر  
اللهم أدخلني مدخل صدق، وأخرجني مخرج صدق، واجعل لي من لدنك سلطاناً نصيراً  
رب اشرح لي صدري، ويسر لي أمري، واحلل عقدة لسانني، يفهوا قولي، باسم الله الفتاح

# رسالة من الفريق العلمي

اللهم إِنِّي عُطِيَّةٌ فِي ذِمَّتِكَ وَحَبْلٌ جُوَارِكَ، فِيْهِ مِنْ فِتْنَةِ الْقَبْرِ وَعَذَابِ النَّارِ،  
أَنْتَ أَهْلُ الْوَفَاءِ وَالْحَقِّ، فَاغْفِرْ لَهُ وَارْحَمْهُ إِنَّكَ أَنْتَ الْغَفُورُ الرَّحِيمُ.



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يَعْلَمُ وَأَنْتُمْ لَا تَعْلَمُونَ

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