

لجنة الطب البشري

رؤية تنير دروب تميّزكم

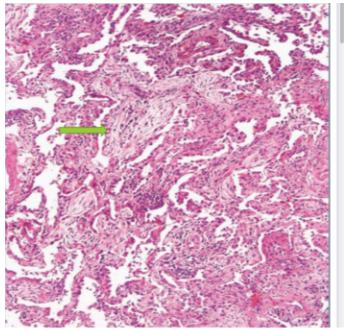
Second Year - Summer Semester

Respiratory System - Labs



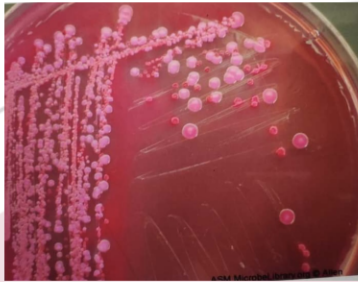
Vein Batch's Exam

1.



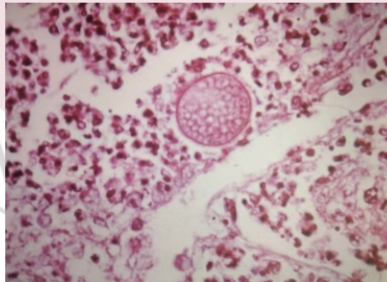
Answer:organizing pneumonia

2.



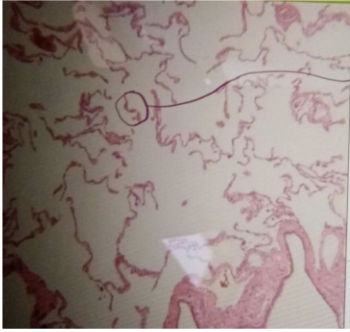
Answer: klebsiella pneumoniae

3.



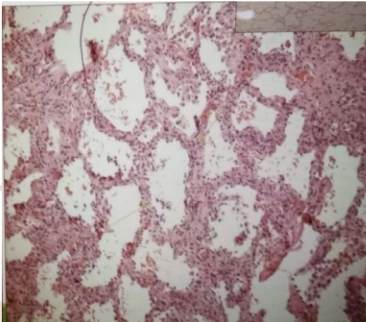
Answer: C. Immitis spherule

4.



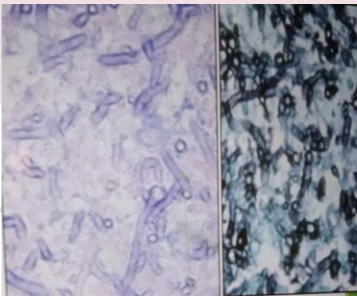
Answer:Emphysema

5.



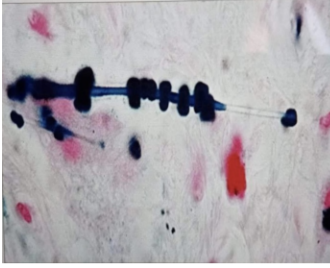
Answer:Non-specific interstitial pneumonia (NSIP)

6.



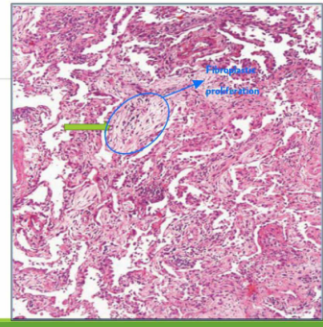
Answer:Mucormycosis

7.



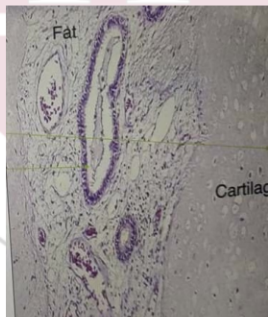
Answer:Asbestos fibers

8.



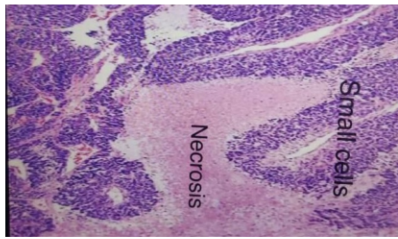
Answer:organizing phase DAD

9.



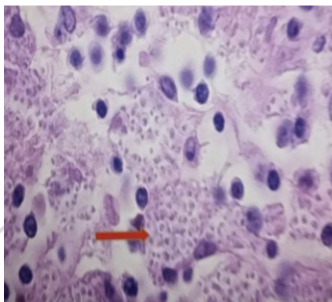
Answer:Pulmonary Hamartoma.

10.



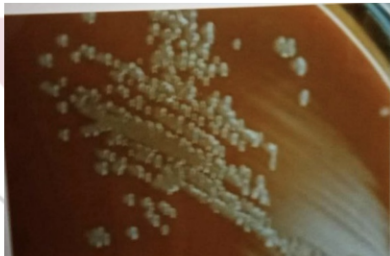
Answer: Small Cell Carcinoma.

11.



Answer: Histoplasma capsulatum.

12.



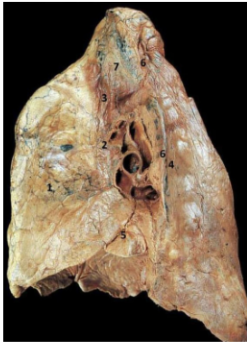
Answer: Haemophilus influenzae.

13.



Answer: 3. SVC

14.

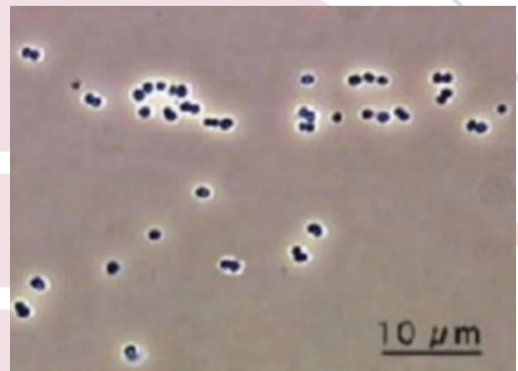


Answer: 6-Esophageal impressio

Athar Batch's Exam

1. A 35-year-old patient presented with Fever, shortness of breath and a cough with rustic colored sputum. Gram stain of the sputum is shown above, the most likely microorganism responsible for the man's illness is?

- A. Streptococcus agalactiae.
- B. Streptococcus viridans.
- C. Streptococcus pneumonia.
- D. Streptococcus pyogenes.
- E. Staphylococcus aureus.



Answer: C

2. The microorganism grown on the media shown above causes a disease rarely seen these days due to effective vaccination measures.

The media and the creamy white colonies represent?

- A. Potassium tellurite agar and Bordetella pertussis colonies.
- B. Loeffler's media and Bordetella pertussis colonies.
- C. Bordet-Gengou agar and Bordetella pertussis colonies.
- D. Loeffler's media and Corynebacterium diphtheria colonies.
- E. Potassium tellurite agar and Corynebacterium diphtheria colonies



Answer: D

3. This 7-year-old child presented to the pediatric ER with generalized erythema and strawberry tongue, the most likely causative organism is?

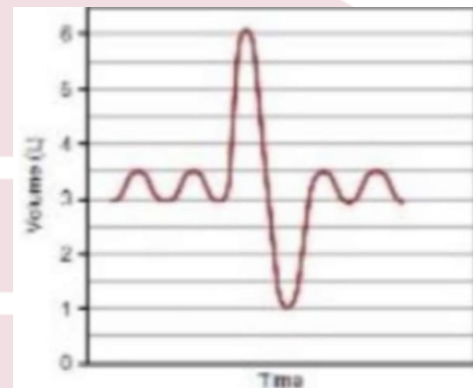
- A. Streptococcus pyogenes.
- B. Haemophiles influenza.
- C. Staphylococcus aureus.
- D. Streptococcus pneumonia.
- E. Streptococcus agalactiae.



Answer: A

4. A 27-year-old man is breathing quietly. He then inhales as much air as possible and exhales as much air as he can, producing the spirogram shown in the figure blow. What is his FRV?(If you know that his RV=1 & EV=2)

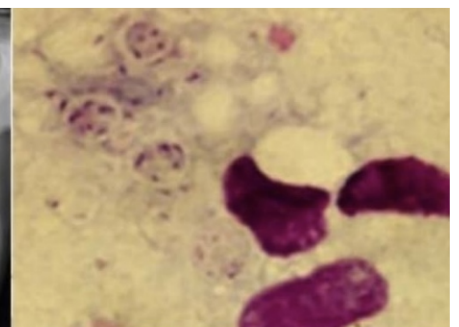
- A. 2.0.
- B. 2.5.
- C. 3.0.
- D. 3.5.
- E. 4.0.



Answer: C

5. A 35-year-old HIV patient presented with fever, nonproductive cough and breathing difficulty of 2-day duration. He was admitted to the ward where a chest x-ray and bronchoalveolar lavage were done. The results are shown below. The CD4 count was 150 cells/mm³. The most likely causative organism of his symptoms is?

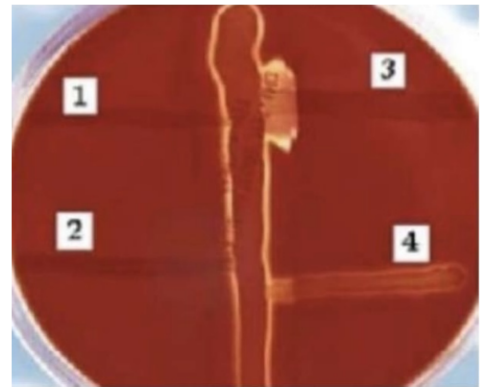
- A. Mycoplasma pneumonia.
- B. Streptococcus pneumonia.
- C. Pseudomonas aeruginosa.
- D. Pneumocystis jiroveci.
- E. Histoplasma capsulatum.



Answer: D

6. Four microorganisms were tested using the CAMP test shown above. Microorganism number 3 is most likely?

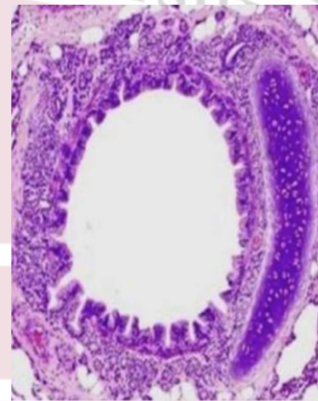
- A. Streptococcus pyogenes.
- B. Haemophilus influenza.
- C. Staphylococcus aureus.
- D. Streptococcus pneumonia.
- E. Streptococcus agalactiae.



Answer: E

7. The image shows a section through?

- A. Trachea.
- B. Larynx.
- C. Primary bronchi.
- D. Secondary bronchi.
- E. Tertiary bronchi.



Answer: C

8. Looking at this specimen of lung removed during autopsy, what is the most likely pathological condition in your opinion to induce these two lesions marked by arrows?

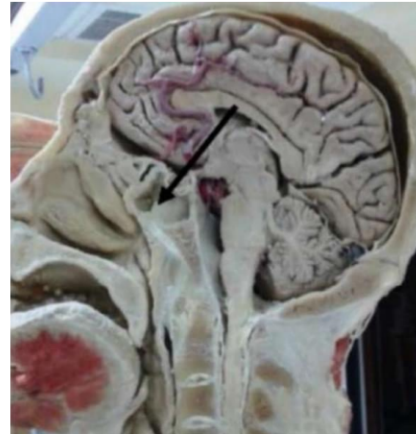
- A. Secondary tuberculosis.
- B. Primary tuberculosis.
- C. Miliary tuberculosis.
- D. Pneumoconiosis.
- E. None of the above.



Answer: B

9. The marked structure drains into:

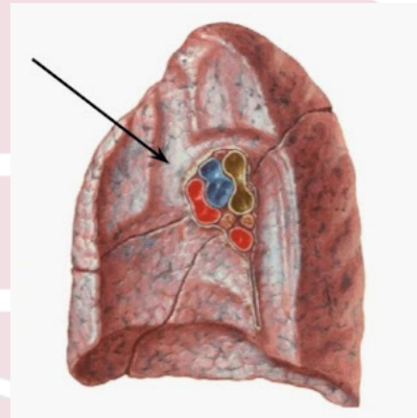
- A. Bulls ethmoidalis.
- B. Anterior part of Hiatus semi lunaris.
- C. Spheno ethmoidal reces.
- D. Infundibulum.
- E. Naso lacrimal duct.



Answer: C

10. The groove that is pointed at by the arrow below represents:

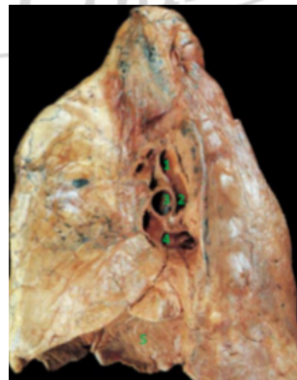
- A. Superior Vena Cava.
- B. Trachea.
- C. Oesophagus.
- D. Arch of azygous.
- E. Right brachiocephalic vein.



Answer: A

11. No. 1 in the figure below indicates:

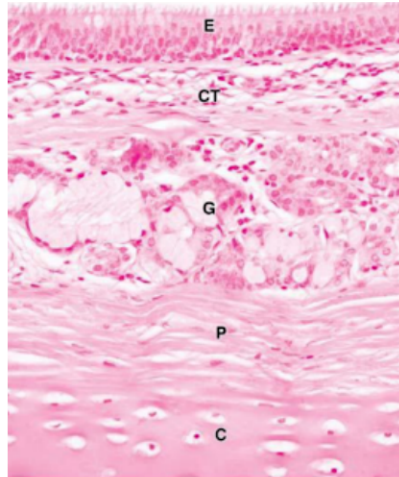
- A. Hiparterial bronchus.
- B. Eparterial bronchus.
- C. Right Pulmonary artery.
- D. Upper Right Pulmonary vein.
- E. Lower Right Pulmonary vein.



Answer: B

12. The following picture represents which part of the respiratory system?

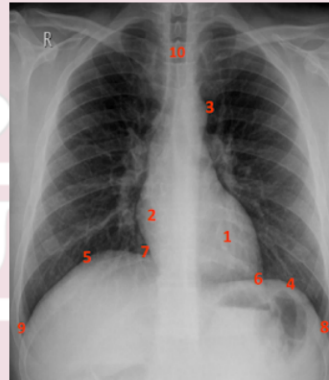
- A. Terminal Bronchiole.
- B. Larynx.
- C. Primary Bronchi.
- D. Nasal Cavity.
- E. Trachea.



Answer: E

13. No. 8 in the following figure represents:

- A. Aortic knuckle (arch of aorta).
- B. Left cardio-phrenic angle.
- C. Right cardio-phrenic angle.
- D. Left costo-phrenic angle.
- E. Right costo-phrenic angle.



Answer: D

14. The muscle that is attached to the structure labeled by no. 2 is:

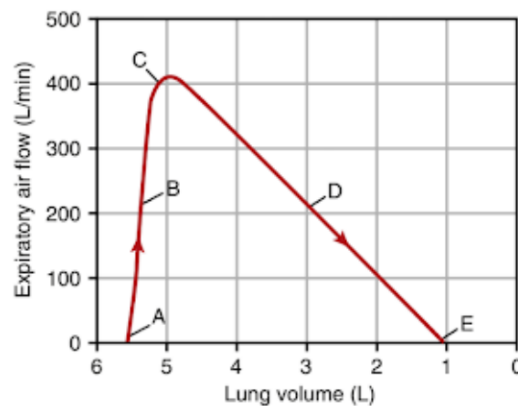
- A. External intercostal muscles.
- B. Internal intercostal muscles.
- C. Subcostal Muscles.
- D. Transversus Thoracis.
- E. Anterior longitudinal ligament.



Answer: A

15. The MEFV curve shown in the figure below is used as a diagnostic tool for identifying obstructive and restrictive lung diseases. At which point on the curve does airway collapse limit maximum expiratory airflow?

- A. A.
- B. B.
- C. C.
- D. D.
- E. E.



Answer: D

16. You review a 54-year-old female with persistent changes on her chest x-ray, which were first noted incidentally. On taking a history, you determine that she has had a reduced exercise tolerance for several months. You order formal pulmonary function tests, which reveal:

	Result	Predicted	% Predicted
FEV ₁	2.12 L	3.08 L	69%
FVC	2.59 L	3.81L	68%
FEV ₁ :FVC ratio	0.82	0.80	103%
Total Lung Capacity	3.05 L	4.24 L	72%
DLCO	15.57 mL/min/mmHg	22.90 L	68%

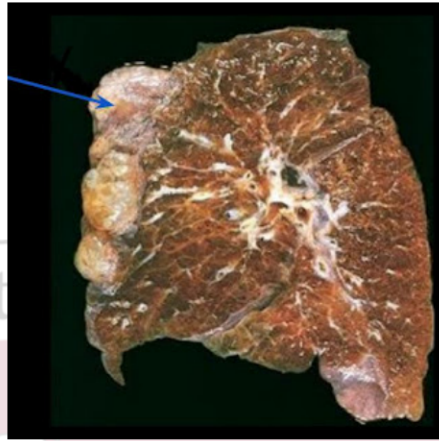
What diagnosis would be most consistent with the findings?

- A. Emphysema.
- B. Chronic bronchitis.
- C. Pulmonary fibrosis.
- D. Bronchiectasis.
- E. Asthma.

Answer: C

17. A 57-year-old male patient, normotensive, nondiabetic, euthyroid, known case of COPD since 13 years presented to the hospital with chief complaints of breathlessness which has increased progressively over time. There was no history of fever, cough, and cold. General and systemic examination revealed the history that he was a chronic cigarette smoker and alcoholic for 24 years but has stopped smoking and alcoholism for 13 years. A biopsy was taken and reveals a form of emphysema that produces a large subpleural blebs, when rupture may lead to pneumothorax.

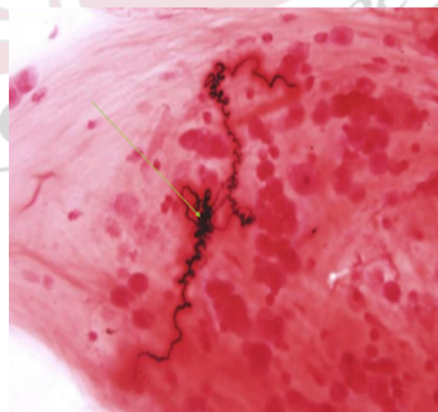
- A. Paraseptal Emphysema.
- B. Panlobular Emphysema.
- C. Centrilobular Emphysema.
- D. Bullous Emphysema.
- E. Panacinar Emphysema.



Answer: D

18. A 50-year-old man, with a history of heavy smoking, presented to the emergency department complaining of recurrent attacks of severe dyspnea, wheezing & cough. The attack lasts from one minute to several hours then gradually subsides spontaneously or with therapy with intervals between attacks that are free from symptoms. The man has a family history of allergic diseases (Rhinitis), due to IgE & TH2 lymphocytes. The sputum of the patient as well as the tissue sections of the bronchi show the mucus plugs containing whorls of shed necrotic epithelial cells shown below. The name of this plugs is:

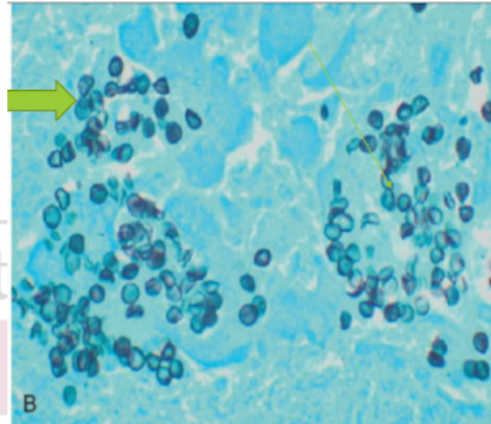
- A. Masson bodies.
- B. Fibroblastic foci.
- C. Cobblestoned plugs.
- D. Charcot-Leyden crystals.
- E. Curschmann's spiral.



Answer: E

19. A 54-year-old woman presented to a large teaching hospital with a 2-week history of fevers, difficulty in breathing, and a non-productive cough. This was preceded by a 3-week history of malaise, nausea, and sharp chest and back pains. This patient was diagnosed before with AIDS. Radiography reveals evidence of bilateral perihilar and basilar infiltrates are typical. Microscopically shows intra-alveolar foamy pink-staining exudate ("cotton candy" exudate), the septa are thickened by edema & minimal mononuclear cells infiltrate. Silver stain demonstrates the organism as a round to cup-shaped cyst wall (Seen below). The most likely organism caused such symptoms is:

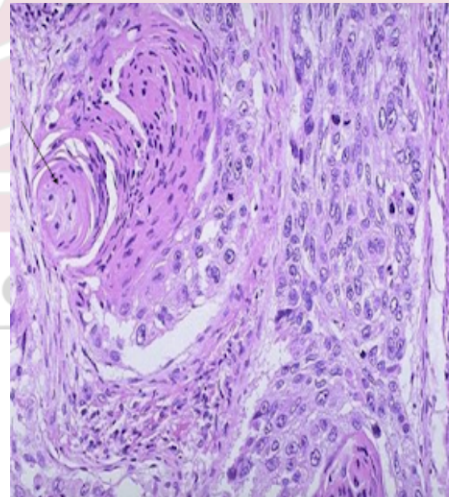
- A. Cytomegalovirus (CMV).
- B. Pneumocystis jirovecii.
- C. Candida albicans.
- D. C. immitis.
- E. Histoplasma Capsulatum.



Answer: B

20. A 55-year-old male smoker presented with cough and shortness of breath. A chest CT scan revealed the presence of a central lung mass with cavitation. A biopsy was performed to show an invasive malignant tumor composed of nests of cells with intercellular bridges and keratinization.

- A. Adenocarcinoma.
- B. Pulmonary hamartoma.
- C. Carcinoid tumor.
- D. Squamous cell carcinoma.
- E. Small cell carcinoma.



Answer: D

Yaqeen Batch's Exam

21. The image shows a section through?

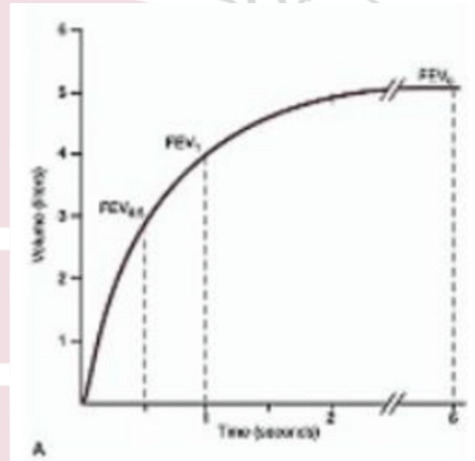
- A. The larynx.
- B. A terminal bronchiole.
- C. A bronchus.
- D. The trachea.
- E. A respiratory bronchiole.



Answer: D

22. The following spiromagram was recorded during the force vital capacity test of an adult person. Form the diagram you can conclude?

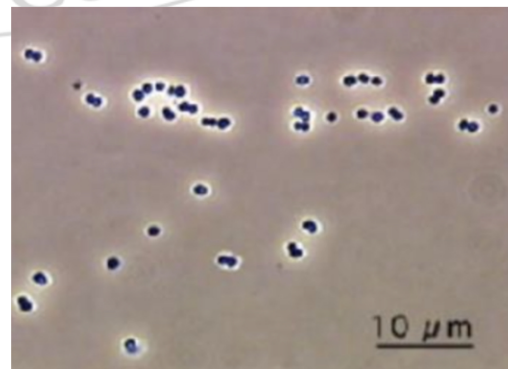
- A. Vital capacity is approximately 4 Liters.
- B. FEV is approximately 3 L.
- C. Residual volume is 1.2 L.
- D. FEV₁/FVC is approximately 80%.
- E. The curve suggests restrictive lung disease.



Answer: D

23. A 35-year-old patient presented with Fever, shortness of breath and a cough with rustic colored sputum. Gram stain of the sputum is shown above, the most likely microorganism responsible for the man's illness is?

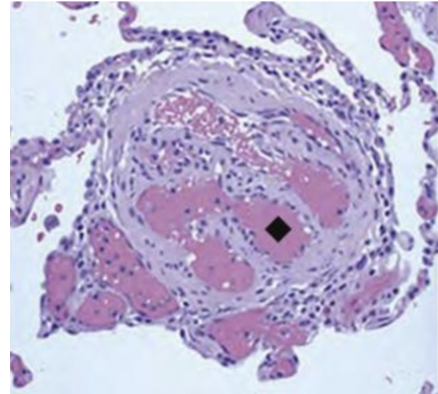
- A. Streptococcus agalactiae.
- B. Streptococcus viridans.
- C. Streptococcus pneumoniae.
- D. Streptococcus pyogenes.
- E. Staphylococcus aureus.



Answer: C

24. This plexiform lesion appears in the picture is seen in:

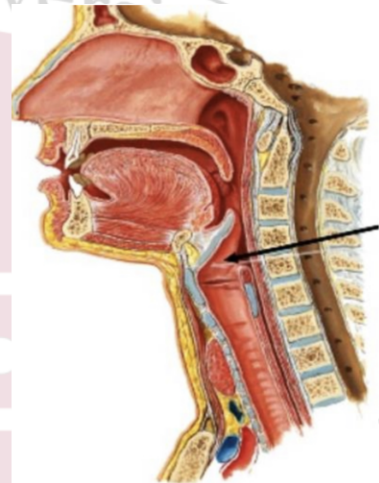
- A. Pulmonary hemorrhage.
- B. Pulmonary edema.
- C. Pulmonary hypertension.
- D. Sarcoidosis.
- E. Asbestosis.



Answer: C

25. The structure demarcated by black arrow is which one of the followings?

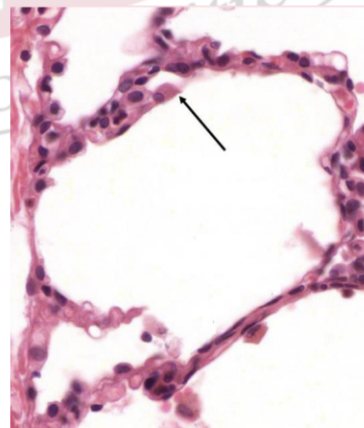
- A. Vestibule of larynx.
- B. Epiglottis.
- C. Trachea.
- D. Thyroid cartilage.
- E. Soft palate.



Answer: A

26. The cell indicated by the arrow?

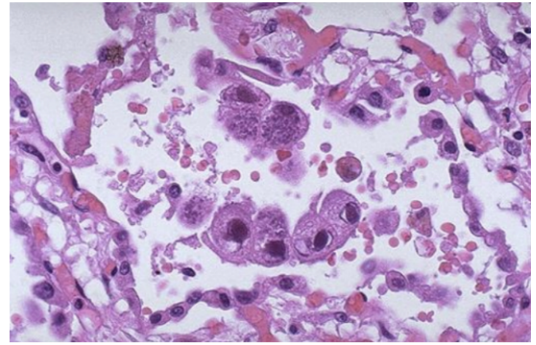
- A. Allows gas exchange.
- B. Releases surfactant factor.
- C. Phagocytoses particles.
- D. Produces mucus.
- E. Acts as a stem cell.



Answer: C

27. These characteristic intranuclear and cytoplasmic inclusions are caused by?

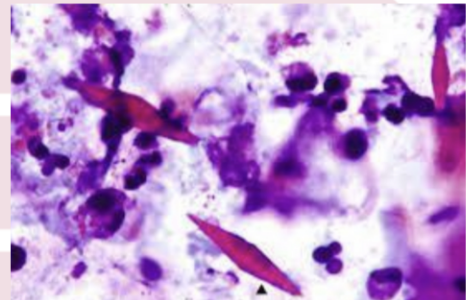
- A. Respiratory syncytial virus.
- B. Cytomegalovirus.
- C. Herpes simplex vims.
- D. Candida.
- E. Acid fast bacilli.



Answer: B

28. A 45-year-old female have acute shortness of breath, sputum analysis reveals the following, what is the diagnosis?

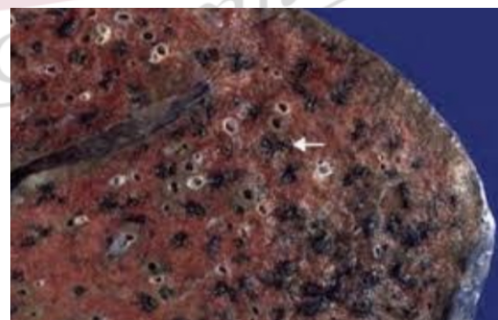
- A. Chronic bronchitis.
- B. Asthma.
- C. Emphysema.
- D. Pulmonary hemorrhage.
- E. Pneumonia.



Answer: B

29. Which of the following is true about this of emphysema?

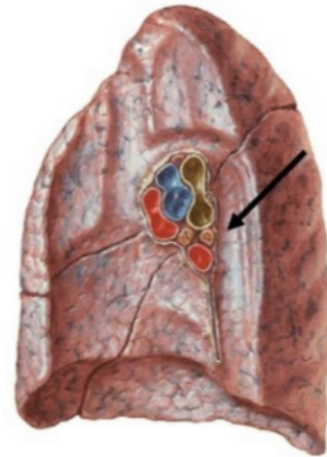
- A. This pattern is typical for alfa I-antitrypsin deficiency.
- B. Do not affect smokers.
- C. Usually involves upper lobes.
- D. Usually involves lower lobes.
- E. Usually involves upper and lower lobes.



Answer: C

30. The structure related to the marked area (black arrow) is?

- A. Ascending Aorta.
- B. Superior vena cava.
- C. Esophagus.
- D. Trachea.
- E. Azygous vein.



Answer: C

31. This 7-year-old child presented to the pediatric ER with generalized erythema and strawberry tongue, the most likely causative organism is?

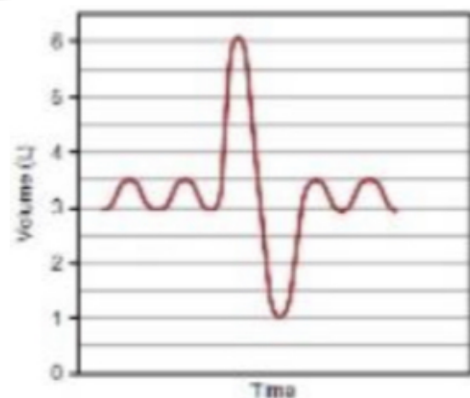
- A. Streptococcus pyogenes.
- B. Haemophiles influenza.
- C. Staphylococcus aureus.
- D. Streptococcus pneumonia.
- E. Streptococcus agalactiae.



Answer: A

32. A 27-year-old man is breathing quietly. He then inhales as much air as possible and exhales as much air as he can, producing the spirogram shown in the figure blow. What is his expiratory reserve? volume (in liters)?

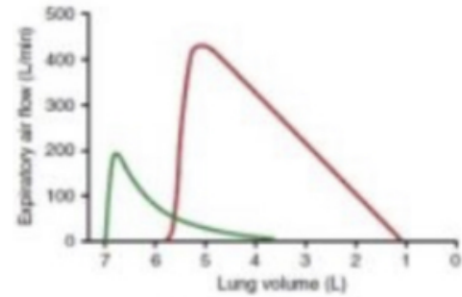
- A. 2.0.
- B. 2.5.
- C. 3.0.
- D. 3.5.
- E. 4.0.



Answer: A

33. A 50-year-old woman presents with cough and shortness of breath. The physician conducts a pulmonary function screening test in his office, and the patient generates the maximum flow– volume curve shown to the left (green color) of the normal curve in the diagram below. Administration of bronchodilator to the patient did not reverse the concave shape of the curve. The volume flow loop to the left of the normal curve is consistent with which of the following?

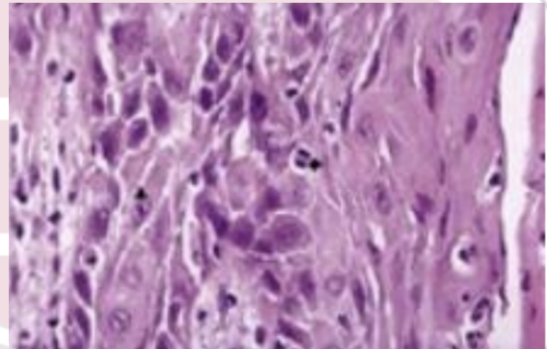
- A. Chronic obstructive lung disease.
- B. Bronchial asthma.
- C. Cystic fibrosis.
- D. Fixed air way obstruction by a tumor.
- E. Interstitial lung fibrosis.



Answer: A

34. A 55-year-old male, heavy smoker, have a large central lung mass, a biopsy from the mass showed the following, what is the diagnosis?

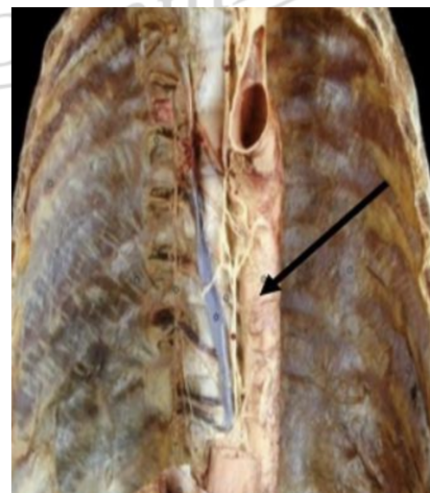
- A. Adenocarcinoma.
- B. Atypical carcinoid.
- C. Large cell carcinoma.
- D. Squamous cell carcinoma.
- E. Small cell carcinoma.



Answer: D

35. The structure marked by the black arrow is which one of the followings?

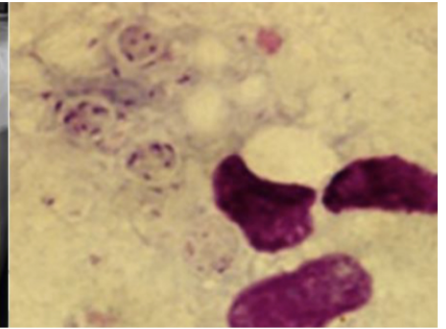
- A. Azygous vein.
- B. Thoracic duct.
- C. Descending Aorta.
- D. Inferior vena cava.
- E. Trachea.



Answer: C

36. A 35-year-old HIV patient presented with fever, nonproductive cough and breathing difficulty of 2-day duration. He was admitted to the ward where a chest x-ray and bronchoalveolar lavage were done. The results are shown below. The CD4 count was 150 cells/mm³. The most likely causative organism of his symptoms is?

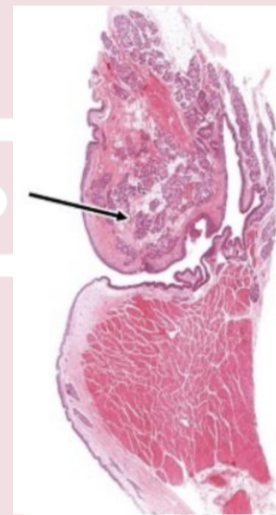
- A. Mycoplasma pneumonia.
- B. Streptococcus pneumonia.
- C. Pseudomonas aeruginosa.
- D. Pneumocystis jiroveci.
- E. Histoplasma capsulatum.



Answer: D

37. In this organ, the structure indicated by the arrow is?

- A. Cartilage.
- B. The vocal fold.
- C. The vocalis muscle.
- D. The cricothyroid membrane.
- E. The vestibular fold.

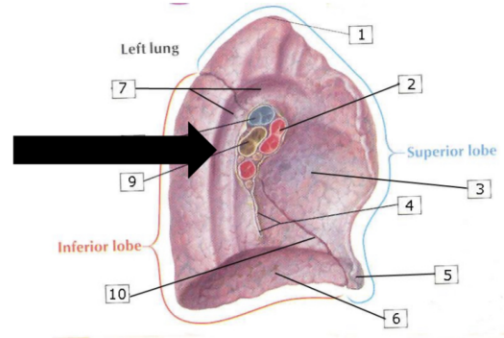


Answer: E

Previous Batches' Exams

38. The area of the lung marked by the arrow is related to?

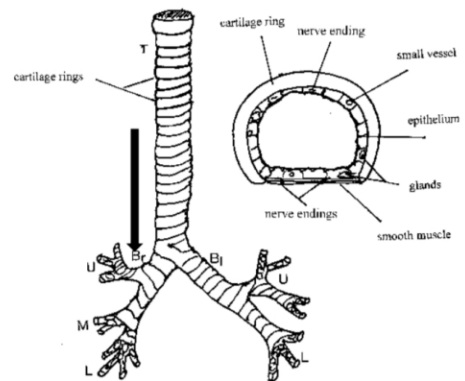
- A. Esophagus.
- B. Inferior vena cava.
- C. Descending abdominal aorta.
- D. Descending thoracic aorta.
- E. Azygos vein.



Answer: D

39. The structure marked by the arrow is?

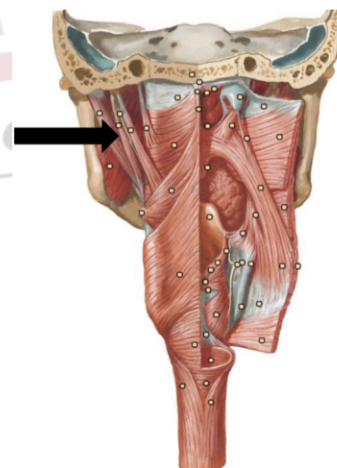
- A. Trachea.
- B. Right main bronchus.
- C. Left main bronchus.
- D. Superior lobar bronchus.
- E. Middle secondary bronchus.



Answer: D

40. The muscle marked by the arrow is?

- A. Stylopharyngeus.
- B. Salpingopharyngeus.
- C. Palatopharyngeus.
- D. Superior constrictor muscle.
- E. Middle constrictor muscle.



Answer: A

41. The structure marked by the arrow is?

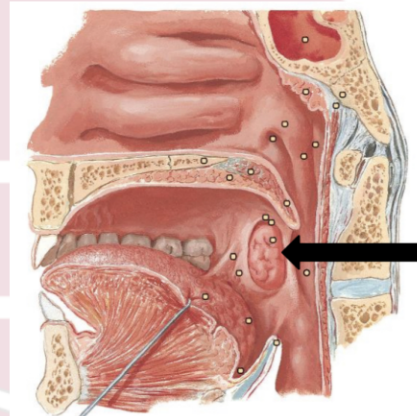
- A. Thyroid cartilage.
- B. Arytenoid cartilage.
- C. Epiglottic cartilage.
- D. Corniculate cartilage.
- E. Cricoid cartilage.



Answer: B

42. The structure marked by the arrow is?

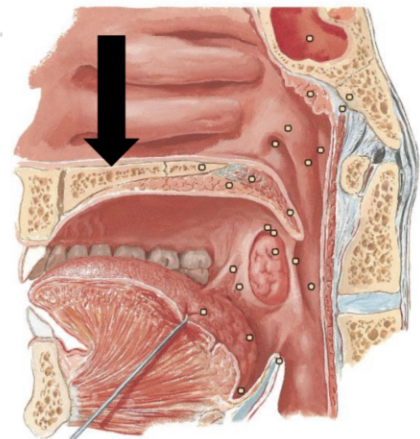
- A. Pharyngeal tonsil.
- B. Laryngeal tonsil.
- C. Palatine tonsil.
- D. Tubal tonsil.
- E. None of the above.



Answer: C

43. The structure marked by the arrow is?

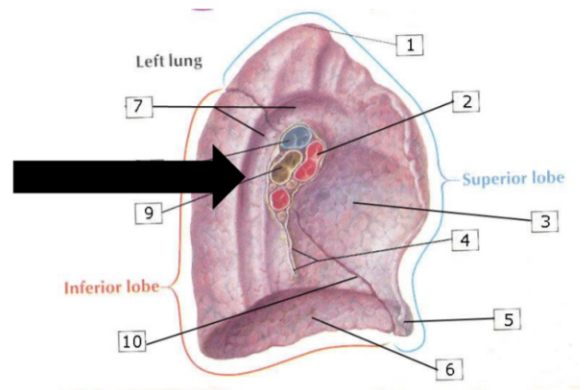
- A. Horizontal plate of the palatine bone.
- B. Palatine process of the maxillary bone.
- C. Vomer bone.
- D. Perpendicular plate of ethmoid bone.
- E. Cribriform plate of ethmoid bone.



Answer: B

44. The area of the lung marked by the arrow is related to?

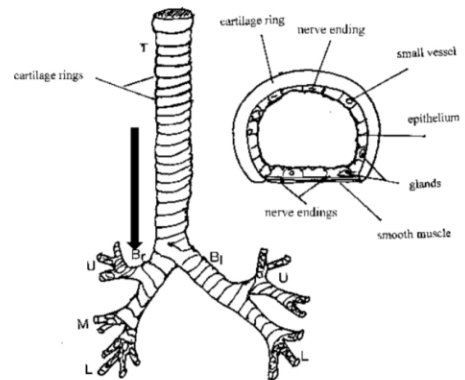
- A. Esophagus.
- B. Inferior vena cava.
- C. Descending abdominal aorta.
- D. Descending thoracic aorta.
- E. Azygos vein.



Answer: D

45. The structure marked by the arrow is?

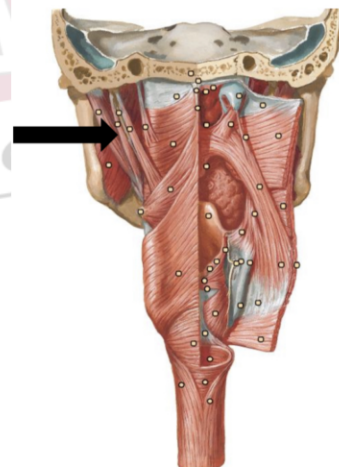
- A. Trachea.
- B. Right main bronchus.
- C. Left main bronchus.
- D. Superior lobar bronchus.
- E. Middle secondary bronchus.



Answer: D

46. The muscle marked by the arrow is?

- A. Stylopharyngeus.
- B. Salpingopharyngeus.
- C. Palatopharyngeus.
- D. Superior constrictor muscle.
- E. Middle constrictor muscle.



Answer: A

47. The structure marked by the arrow is?

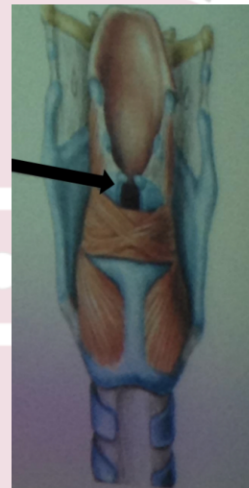
- A. Median glossoepiglottic fold
- B. Lateral glossoepiglottic fold
- C. Thyrohyoid membrane
- D. Thyrohyoid ligament
- E. aryepiglottic fold



Answer: E

48. The structure marked by the arrow is?

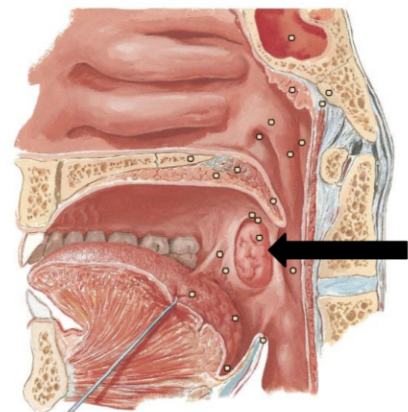
- A. Thyroid cartilage.
- B. Arytenoid cartilage.
- C. Epiglottic cartilage.
- D. Corniculate cartilage.
- E. Cricoid cartilage.



Answer: B

49. The structure marked by the arrow is?

- A. Pharyngeal tonsil.
- B. Laryngeal tonsil.
- C. Palatine tonsil.
- D. Tubal tonsil.
- E. None of the above.



Answer: C

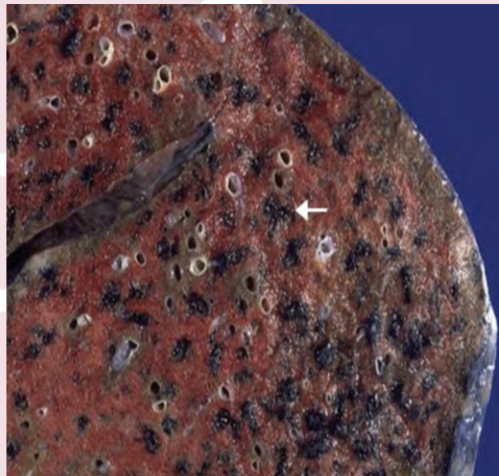
50. Chocolate agar is the media of choice for the growth of H. influenza, which of the following components is essential for the growth of H. influenza?

- A. Nicotinamide Adenine Dinucleotide
- B. Charcoal
- C. Potato extract
- D. Vancomycin
- E. Iron



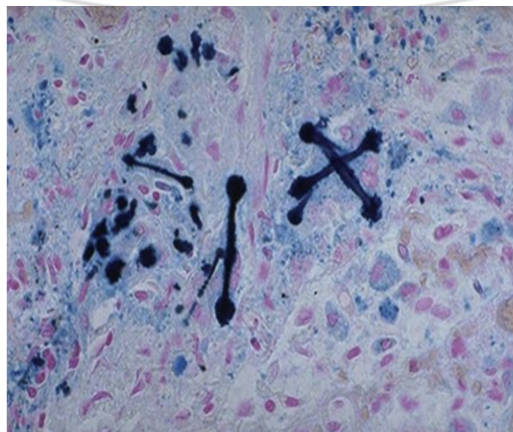
Answer: A

51. Which is true about this type of emphysema?



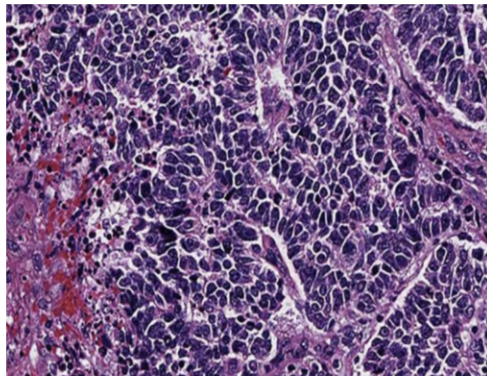
Answer: Centriacinar emphysema.

52. The structures appear in the following picture are seen in?



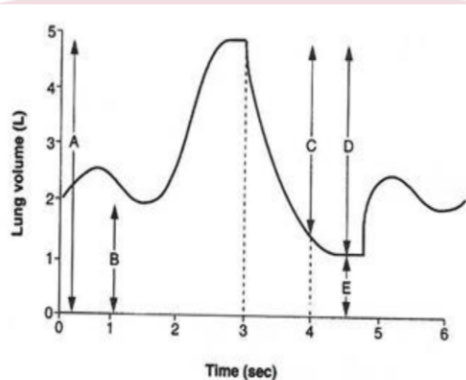
Answer: Asbestosis.

53. 55-year-old male, heavy smoker, have large central lung mass, a biopsy from the mass showed the following, what is the diagnosis?



Answer: Small cell carcinoma.

54. Based on the following spirogram select the lettered arrow that corresponds to FEV1?



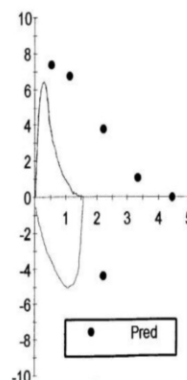
Answer: B.

55. A 73-year-old man presents with progressive dyspnea on exertion. The table and the graph show his pulmonary function test result. This is a case of?

Test	Pre-Bronchodilator (BD)		
	Actual	Predicted	% Predicted
FVC (L)	1.57	4.46	35
FEV ₁ (L)	1.28	3.39	38
FEV ₁ /FVC (%)	82	76	
FRC	1.73	3.80	45
RV (L)	1.12	2.59	43
TLC (L)	2.70	6.45	42
RV/TLC (%)	41	42	
DLCO corr	5.06	31.64	16

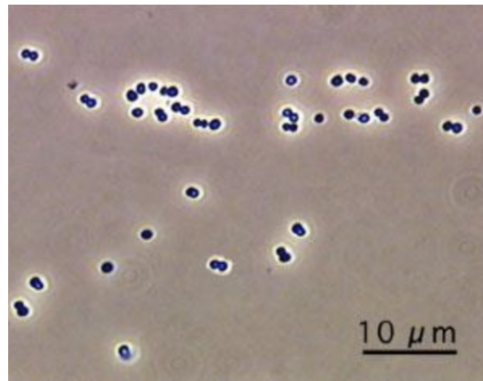
DLCO = Diffusion Capacity for Carbon Monoxide

The curve shows the actual (solid line) and predicted values (dots)



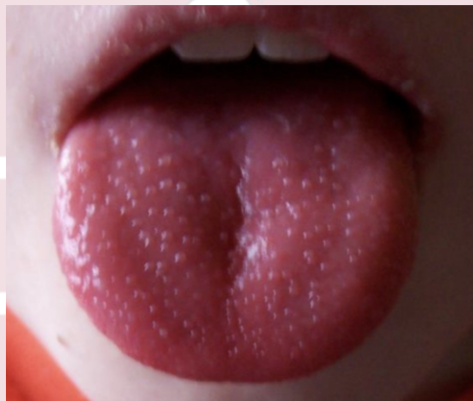
Answer: Obstructive lung disease.

56. A 55-year-old patient presented with Fever, shortness of breath and a cough with rust-colored sputum. Gram stain of the sputum is shown above, the most likely microorganism responsible for the man's illness is?



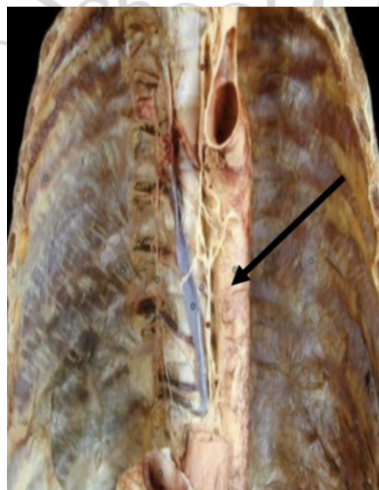
Answer: Streptococcus pneumoniae.

57. This 7-year-old child presented to the pediatric ER with generalized erythema and strawberry tongue, the most likely causative organism is?



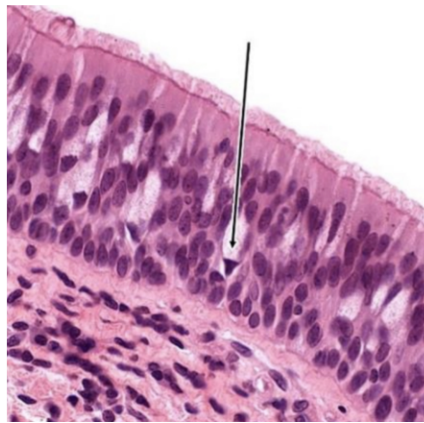
Answer: Streptococcus pyogenes.

58. The structure marked by the black arrow is which one of the followings?



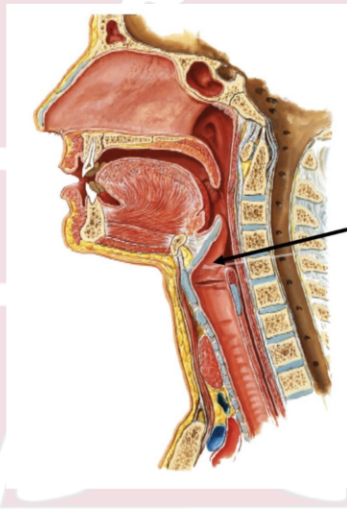
Answer: Descending thoracic aorta.

59. In the epithelium shown, the cell indicated by the arrow is?



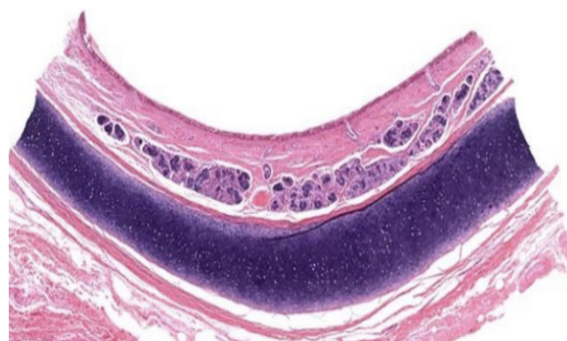
Answer: Goblet cell in respiratory epithelium.

60. The structure demarcated by black arrow is which one of the followings?



Answer: Vestibule of the larynx.

61. In the organ shown, the lining epithelium is?



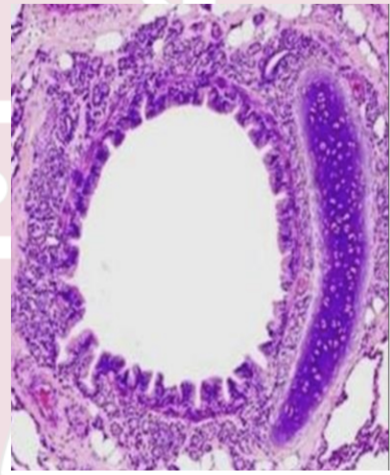
Answer: Respiratory epithelium/ Pseudo stratified columnar epithelium in trachea.

62. The structure related to the marked area by black arrow is which one of the followings?



Answer: Esophagus.

63. The image shows a section through?



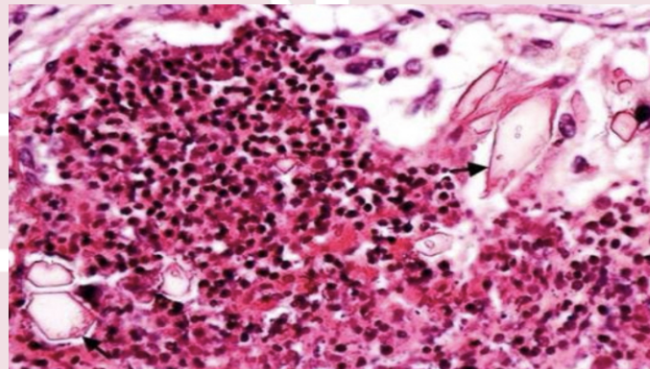
Answer: Primary bronchi.

64. The demarcated structure by the black arrow is:



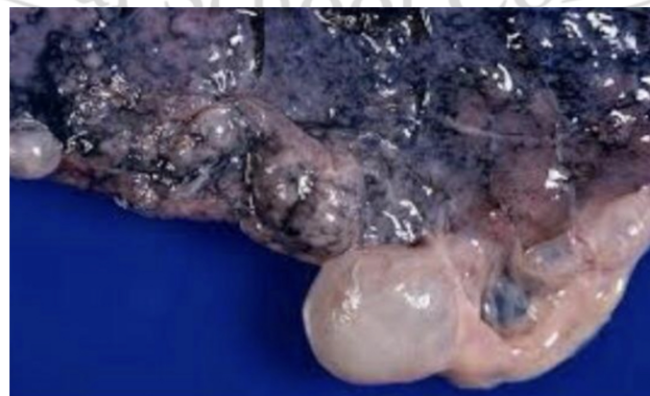
Answer: Sphenoid air sinus.

65. Looking at this specimen of lung, what's the name of the structure marked by the arrow?



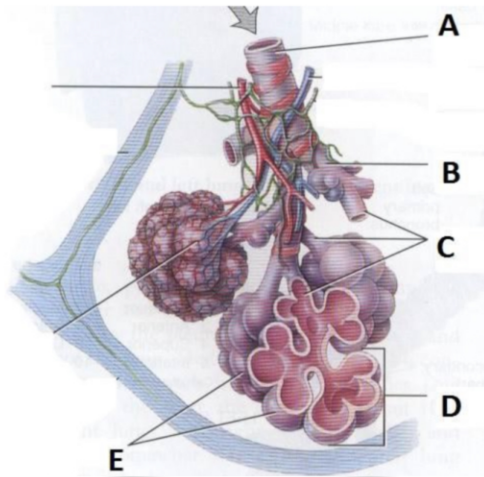
Answer: Charcot layden crystals.

66. What is the complication of the bullous emphysema seen in this lung specimen?



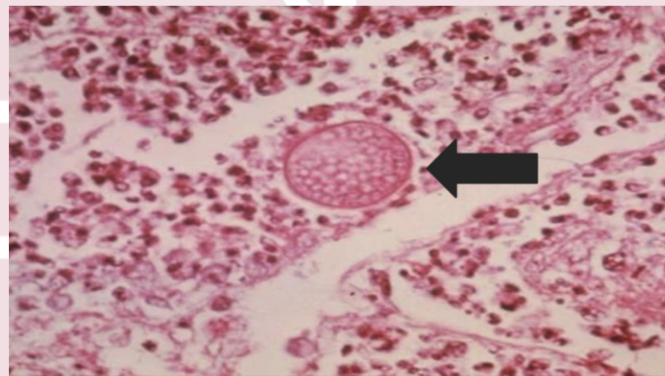
Answer: Pneumothorax.

67. Which of the following structures is lined by simple squamous cell?



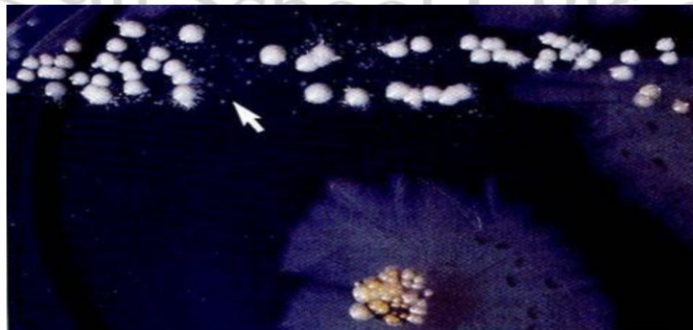
Answer: E.

68. Looking at this specimen of lung, what is the name of the lesion?



Answer: C. Immitis.

69. Legionella grows in:



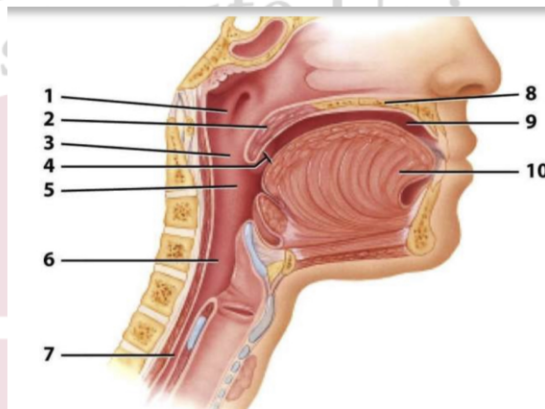
Answer: Buffered charcoal yeast extract agar.

70. Which organism is not responsible for this infection ?



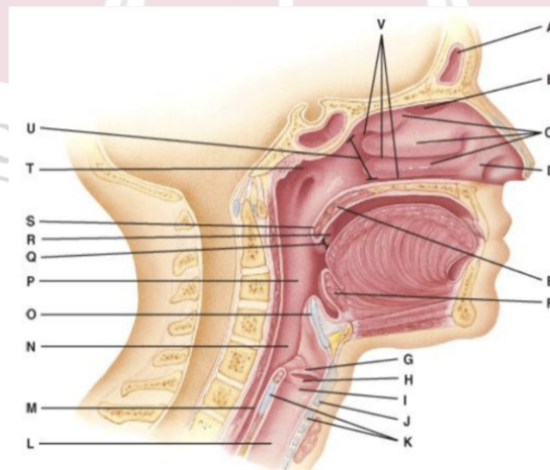
Answer: C.diphtheria.

71. Hard palate is labeled with the number:



Answer: 8.

72. Where are the palatine tonsils?



Answer: R

73. What is the name of pathogen?



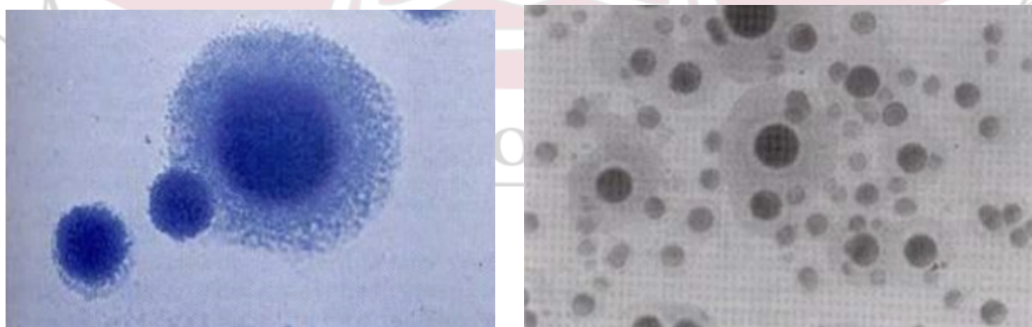
Answer: Bordetella pertussis.

74. This symptom caused by?



Answer: Streptococcus pyogenes.

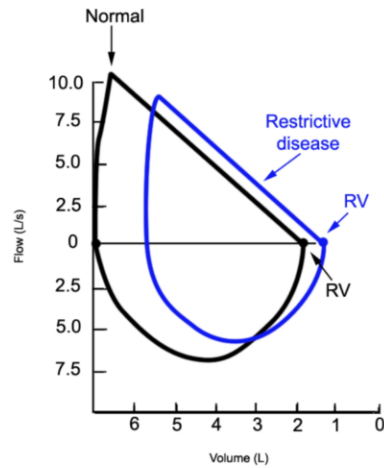
75. Resemble fried egg appearance caused by ?



Answer: M.pneumoniae.

76. The blue flow-volume loop represents?

- A. Obstructive lung disease
- B. Restrictive lung disease



Answer: B

77. PFT shown above represents which of the following?

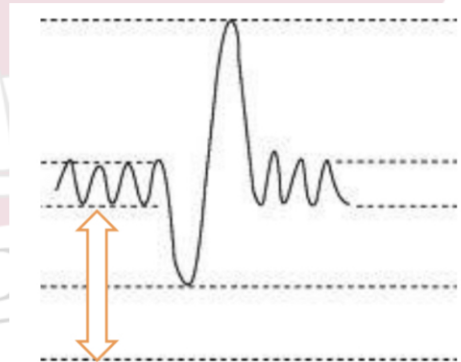
- A. Normal values.
- B. Obstructive lung disease.
- C. Restrictive lung disease.

Pulmonary tests	Predicted Values	Measured Values	% Predicted
FVC	6.00 liters	4.00 liters	67 %
FEV1	5.00 liters	2.00 liters	40 %
FEV1/FVC	83 %	50 %	60 %

Answer: B

78. In the graph shown, the arrow represents which lung volume?

- A. TV.
- B. IRV.
- C. VC.
- D. FRC.
- E. RV



Answer: D

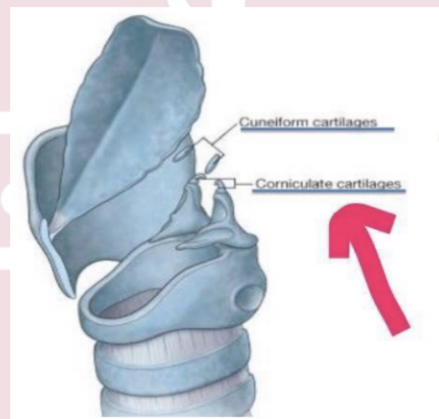
79. Children at 7-years old which go to pediatric ER has strawberry tongue and no pus on tonsils . Which of the following is more common to cause it symptoms?

- A. Strep pyogenes.
- B. Strep. Pneumonia.
- C. Haemophilus Influenza.
- D. Mycoplasma pneumonia.
- E. Strep agalactiae.



Answer: A

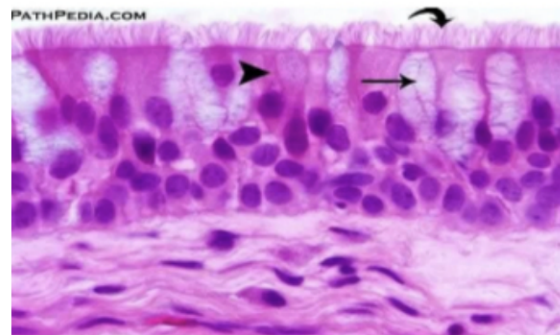
80. The structure shown below is:



Answer: Corniculate cartilage.

81. Which of the following doesn't found in this tissue?

- A. Goblet cell.
- B. Clara cell.
- C. Basel cell.
- D. Granular cells.
- E. Ciliated epithelium.



Answer: B

82. The histological section is consider?

- A. Terminal bronchioles.
- B. Secondary bronchi.
- C. Trachea.
- D. Segmental bronchi.
- E. Alveoli.



Answer: C

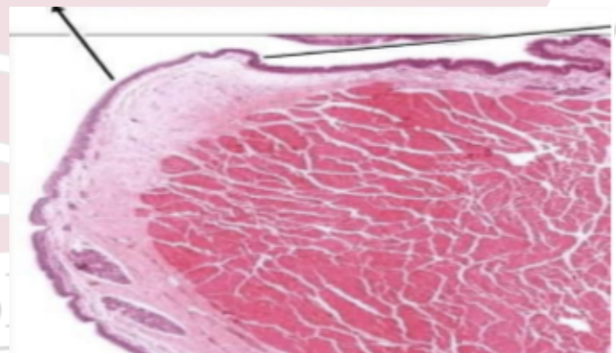
83. The whopping cough agar is?



Answer: Regan-low charcoal agar.

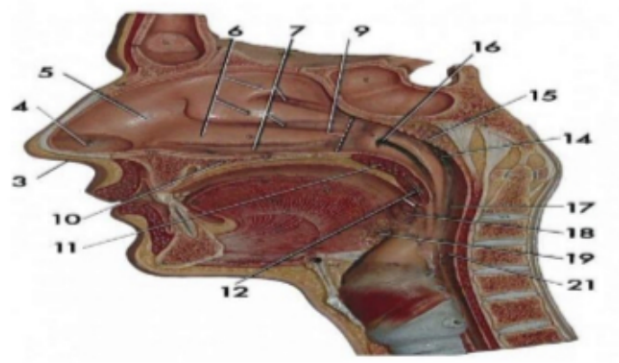
84. The type of tissue here is?

- A. Simple columnar epithelium.
- B. Stratified squamous epithelium.
- C. Simple squamous epithelium.
- D. Pseudo stratified columnar epithelium.



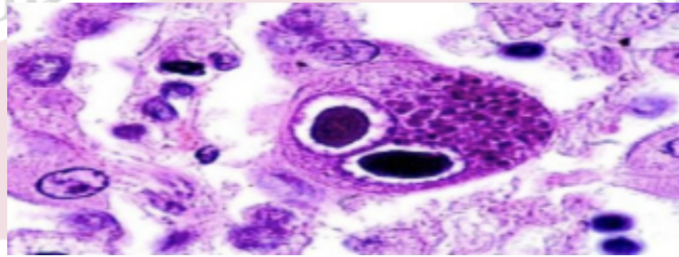
Answer: B

85. The structure at 15th row is?



Answer: Pharyngeal tonsil.

86. The type of infection is?



Answer: Cytomegalovirus infection.

87. Which of the following form the shape in this pic?



Answer: eosinophilic-protein charcot leyden.

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