

Tanta University

Faculty of Medicine

Chest Department

Diploma 2<sup>nd</sup> part exam. (Paper I) 2005 لائحة

Total: 50 Marks

Time Allowed: 3Hours

Monday 17/5/2021



	<b>All Questions should be answered:</b>	<b>Marks</b>
1	Discuss cavitation in pulmonary tuberculosis types and its pathological aspects?	8
2	Discuss empyema, causes, types and management?	8
3	Describe aspiration pneumonia causes and management?	8
4	Mention indications of non-invasive and invasive ventilation in COPD patient's?	8
5	Write short account on A. Low molecular weight heparin? B. Lung surfactant	4 4
6	A 55 year old male who comes with complaints of shortness of breath. He has gained 10 lbs over the past 6 months and feels difficult of breathing when walking up a flight of stairs. There has been no cough or sputum production and he has no other respiratory complaints. He has a history of childhood asthma but has not had any exacerbations as an adult. His past medical history is also relevant for hypertension, recently diagnosed non-insulin-dependent diabetes, and hyper-lipidemia. His is an ex-smoker and quit 10 years ago with a 10 pack-year history of smoking. He denies any occupational exposures. His wife, mentions that he has dozed off in front of the TV while waiting for dinner. He has restless sleep during the night, and she is getting tired of having her own sleep disrupted with his loud snores. What is your diagnosis and tests are available to support your diagnosis? (6) What is the differential diagnosis of daytime hypersomnolence? (4)	10

لجنة الأمتحان

اد. جيهان حسن

اد. هدى بحر

اد. فوزى العميرى

*Good luck*

Tanta University

Faculty of Medicine

Chest Department

Diploma 2<sup>nd</sup> part exam. (Paper I) 2013 لائحة

Total: 180 Marks

Time Allowed: 3Hours

Tuesday 1/6/2021



	<b>All Questions should be answered:</b>	<b>(Marks)</b>
1	Discuss prognostic factors of pulmonary tuberculosis related mortality?	25
2	Mention invasive diagnostic approach of malignant pleural effusion?	30
3	Discuss causes and management of chronic lung abscess?	25
4	Mention diagnosis, complications, differential diagnosis and treatment of emphysematous bulla?	30
5	Write short account on A. New oral anticoagulants? B. Anion gap? C. Forced vital capacity?	10 10 10
6	A 34-year-old female seeks evaluation for a complaint of cough and dyspnea on exertion that has gradually worsened over 3 months. No past history of pulmonary complaints. She started working in a pet store approximately 6 months ago, cleaning the reptile and bird cages. She reports occasional low-grade fevers but has had no wheezing. The cough is nonproductive. Before 3 months ago the patient had no limitation of exercise tolerance, but now she reports that she gets dyspneic climbing two flights of stairs. On physical examination the patient appears well. She has an SaO <sub>2</sub> of 95% on room air at rest but desaturates to 89% with ambulation. Temperature is 37.7°C. Clinical examination is unremarkable. The patient has a normal CXR. A HRCT shows diffuse ground-glass infiltrates in the lower lobes with the presence of centrilobular nodules. A transbronchial biopsy shows an interstitial alveolar infiltrate of plasma cells, lymphocytes, and occasional eosinophils. There are also several loose noncaseating granulomas. All cultures are negative for bacterial, viral, and fungal pathogens. • What is your diagnosis and discuss other differential diagnosis? (25) • What treatment do you recommend for the patient? (15)	40

ا.د جيهان حسن

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لجنة الامتحان

Good Luck

Tanta University Faculty of Medicine Chest Department  
Diploma 2<sup>nd</sup> part exam. (Paper II) لائحة 2005 Total: 50 Marks  
Time Allowed: 3Hours Saturday 29/5/2021



	All Questions should be answered	Marks
1	Outline solitary pulmonary nodules causes & diagnostic approach?	6
2	What are phenotypes and genotypes of bronchial asthma?	6
3	Discuss Silicosis ,symptoms , diagnosis and treatment?	6
4	Describe Mediastinal syndrome causes, clinical presentations and management?	7
5	Write short account on : A. Work of breathing B. Respiratory acidosis C. Fiberoptic bronchoscopy	3 3 4
6	MCQ (30 MCQ questions in 6 papers) تسلم ورق أسئلة هذا السؤال مع ورقة الأجابه  <b>Good luck</b>	15

لجنة الأمتحان  
ا.د فوزى العميرى  
ا.د هدى بحر  
ا.د جيهان حسن

Good Luck

**Choose one answer for each of the following question:**

Q1; Tree in bud findings on a high resolution chest CT scan are indicative of:

- A. Bronchiectasis
- B. COPD
- C. Asthma
- D. Lung cancer

Q2; The haemodynamic consequences of acute pulmonary embolism become apparent when the pulmonary arterial bed is occluded by;

- A. 10-20%
- B. 50-70%
- C. 30-50%
- D. 80-90%

Q3; A patient complained of sudden onset shortness of breath and pleuritic chest pain. On examination his trachea is deviated to the left and there is hyperresonance on the right side of his chest. What is the next appropriate management step?

- A. Large bore cannula in right second intercostal space mid-clavicular line
- B. Large bore cannula in left second intercostal space mid-clavicular line
- C. CT chest
- D. LT sided chest intercostal tube Chest

Q4; Which of the following has been proven to improve survival in COPD?

- A. Short acting B agonists inhalers
- B. Rehabilitation
- C. Steroids
- D. Long term oxygen therapy

Q5; A patient who was previously a coal miner, with chest xray showed numerous small round opacities with normal lung markings. What is the most likely diagnosis?

- A. Progressive massive fibrosis
- B. Simple pneumoconiosis category
- C. Silicosis
- D. Simple pneumoconiosis category

Q6; A 25 year old female presents with dry cough, fever and shortness of breath, also been suffering from night sweats and malaise. She has noticed bruise like lesions on her shins. She is found to have an elevated ESR and a CXR reveals bilateral hilar lymphadenopathy, and evidence of reticulo nodular shadowing in the upper lobes. What is the most likely diagnosis?

- A. Lymphoma
- B. Rheumatoid arthritis
- C. Sarcoidosis
- D. Tuberculosis

Q7; A 42 year old with Rheumatoid arthritis presents with increasing dyspnoea and a non productive cough. A CXR reveals diffuse reticular opacities and pulmonary functions tests reveal a restrictive pattern. What is the most likely diagnosis?

- A. Caplans Syndrome
- B. Bronchiolitis obliterans with organising pneumonia
- C. Interstitial lung disease
- D. ARDS

Q8; Which of the following is not a poor prognostic factor for pneumonia?

- A. Respiratory rate of 28
- B. Confusion
- C. Urea of 7.2 mmol/L ion
- D. Age 72 year

Q9; A 52 year asthmatic patient presents with, shortness of breath, wheeze and nocturnal cough. He has noticed coughing up blood on several occasions. He also complains of feeling generally unwell with a headache and fever. Bloods reveal an elevated eosinophil count and IgE. A CXR reveals new infiltrates. Which of the following will confirm the diagnosis?

- A. Autoantibodies
- B. Serology for aspergillus precipitins
- C. Lung biopsy
- D. High resolution CT

Q10; In which of the following is CPAP contraindicated?

- A. Active tuberculosis
- B. Hypovolaemia
- C. Hypotension
- D. Basilar skull fracture

Q11; What is the most appropriate management of a DVT during pregnancy?

- A. Aspirin
- B. Warfarin
- C. Dalteparin
- D. IVC filter

Q12; Which of the following leads to an elevated alveolar arterial O<sub>2</sub> gradient?

- A. Bronchial Cancer
- B. Kyphoscoliosis
- C. Pulmonary Embolism
- D. Asthma

Q13; A patient is found to have chronic type 2 respiratory failure. Which one of the following is the most likely cause?

- A. Pulmonary hypertension
- B. Kyphoscoliosis
- C. Recurrent pulmonary embolus
- D. Pneumonia

Q14; A 52 year old male who keeps pigeons presents to his GP. He states for some months he has had a productive cough, shortness of breath on exertion, fatigue, anorexia and has lost 2 stones in weight. On examination there is bibasal inspiratory crackles. A CXR reveals reticulonodular shadowing. Which of the following can aid in the diagnosis?

- A. Eosinophil Count
- B. Sputum Culture
- C. Aspergillus precipitins
- D. Antigen specific IgG antibodies

Q15; Which of the following leads to low pleural effusion glucose levels?

- A. Parapneumonic
- B. Congestive cardiac failure
- C. Rheumatoid disease
- D. Pulmonary embolism

Q16; Which of the following is not a cause for transudative pleural effusion;

- A. Cardiac failure
- B. Pneumonia
- C. Cirrhosis
- D. Hypothyroidism

Q17; What is an appropriate treatment regime for someone diagnosed with pulmonary tuberculosis?

- A. Initially rifampicin, isoniazid, ethambutol and pyrazinamide for 2 months then isoniazid , rifampicin for further 4 months
- B. Initially rifampicin, isoniazid, ethambutol and pyrazinamide for 6 months
- C. Initially rifampicin, isoniazid, and ethambutol for 2 months then isoniazid , rifampicin for further 4 months.

Q18; A patient who has been previously diagnosed with coal workers pneumoconiosis develops worsening shortness of breath and cough productive of black sputum. On CXR there is large nodular fibrotic masses in the upper lobes. What is the most likely diagnosis?

- A. Worsening pneumoconiosis
- B. Caplans syndrome
- C. Klebsiella Pneumonia
- D. Progressive massive fibrosis

Q19; What would suggest metabolic alkalosis in a patient with a bicarbonate of 36 mmol/l?

- A. Raised anion gap
- B. Raised CO<sub>2</sub>
- C. Low CO<sub>2</sub>
- D. Alkaline urine

Q20; A patient presents with a life threatening asthma attack. Which of the following is the most worrying feature?

- A. Consolidation on CXR
- B. PCO<sub>2</sub> of 40 mmhg
- C. Previously required oral steroids
- D. PO<sub>2</sub> of 85mmhg

Q21; Which of the following drugs utilised for the management of Tuberculosis, can lead to dizziness and balance disturbance?

- A. Streptomycin
- B. Ethambutol
- C. Isoniazid
- D. Pyrazinamide

Q22; Which of the following would lead to whispering pectoriloquy on auscultation?

- A. Pneumothorax
- B. Consolidation
- C. Pleural Effusion
- D. Pulmonary fibrosis

Q23; The method used to test respiratory muscle strength;

- A. Maximal inspiratory pressure.
- B. Minute ventilation
- C. Airway occlusion pressure
- D. The ratio of breathing frequency to tidal volume.

Q24; It is one of the long acting B2 agonist;

- A. Glycopyrronium
- B. terbutaline
- C. Indacaterol maleate
- D. salbutamol

Q25; Which of the following is not a side effect of rifampicin?

- A. Staining of bodily secretions pink
- B. Hepatitis
- C. Thrombocytopenia
- D. Visual disturbance

Q26; The sniff test is utilised in what imaging technique?

- A. Echocardiography
- B. CT chest
- C. Fluoroscopy
- D. PET scan



Q27; A 22 year old presents with sudden onset of pleuritic chest pain. He is not breathless and his saturations are 100%. A Chest Xray reveals a small pneumothorax which is less than 2cm rim. How should this patient be managed?

- A. Admit for observation
- B. High flow oxygen
- C. Outpatient follow up
- D. Chest drain

Q28; The patient is placed on a mechanical ventilator with tidal volume 1500 cc, FIO<sub>2</sub> 50%, and PEEP 12. An ABG shows pH 7.45, PaO<sub>2</sub> 110, PaCO<sub>2</sub> 25. Your next order is;

- A. Increase PEEP to 15
- B. Blood transfusion
- C. Increase FIO<sub>2</sub>
- D. Decrease tidal volume.

Q29 Which of the following medications exerts its activity by inhibiting 5-lipoxygenase to prevent the synthesis of leukotrienes;

- A. Zafirlukast
- B. Cromolyn
- C. Zileuton
- D. Montelukast

Q30; One of the strong predisposing factors of pulmonary embolism;

- A. Increasing age
- B. Obesity
- C. Bed rest > 3 days
- D. Hip or Knee replacement.

تسلم ورق أسئلة هذا السؤال مع ورقة الأجابه

**Good luck**

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Chest Department

Diploma 2<sup>nd</sup> part exam. (Paper II) 2013 لائحة

Total: 180 Marks

Time Allowed: 3Hours

Tuesday 8/6/2021



	<b>All Questions should be answered</b>	<b>Marks</b>
<b>1</b>	Mention military shadow of the lung, causes and diagnostic approach?	25
<b>2</b>	Mention the impact of covid-19 in asthmatic patients ?	25
<b>3</b>	Discuss pulmonary manifestations of systemic lupus erythromatosis?	25
<b>4</b>	Causes and management of obstructive sleep apnea?	25
<b>5</b>	Write short account on : A. Alveolar cell carcinoma B. PEEP C. BAL	7 7 6
<b>6</b>	MCQ (30 MCQ questions in 6 papers) تسلم ورق أسئلة هذا السؤال مع ورقة الأجابه  <i>Good luck</i>	60

لجنة الأمتحان

اد فوزى العميرى

اد هدى بحر

اد جيهان حسن

**Choose one answer for each of the following question:**

1- Which of the following features makes ARDS unlikely?

- A Bilateral infiltrate on chest X-ray
- B Hypotension
- C Increased pulmonary capillary wedge pressure
- D Metabolic acidosis
- E Reduced urine output

2- Which of the following Diffuse Parenchymal Lung Diseases, have the best prognosis without treatment?

- A Alveolar proteinosis
- B Hypersensitivity pneumonitis
- C Idiopathic pulmonary fibrosis
- D Non-specific interstitial pneumonia
- E Sarcoidosis

3- Which of the following is a feature of life-threatening asthma?

- A PaCO<sub>2</sub> <4 kPa
- B PEF >75% predicted
- C Polyphonic wheeze
- D Silent chest
- E Tachycardia

4- Which of the following statements about Allergic Bronchopulmonary Aspergillosis is true?

- A Chest physiotherapy is not required
- B Corticosteroids are not indicated
- C CXR will show cavitation with a fungal ball
- D IgE level in blood will be very high
- E Treatment is with standard antibiotics as used for CAP

5- A 70-year-old woman is found to have a nodule on a chest X-ray which was performed routinely prior to a left hip replacement. She has smoked 10 cigarettes / day for 20 years but had stopped 30 years previously. Apart from osteoarthritis of her left hip and a BMI of 40, she appeared well with no other symptoms. The orthopaedic consultant organised a chest CT which shows a 6 mm smooth with no calcification nodule in the left upper lobe of the lung with no lymphadenopathy. How would you manage this patient?

- A Reassure and discharge the patient
- B Organise a CT guided biopsy
- C Organise a bronchoscopy for bronchoalveolar lavage
- D Organise a CT-PET scan

E Arrange for an interval CT scan of thorax in 6 months

6- Non-caseating granulomas are associated with inhalation of which substance?

- A Beryllium
- B Cadmium
- C Iron
- D Nickel
- E Silica

7- A bilateral pleural effusion is most likely to be due to what cause?

- A Congestive cardiac failure
- B Meig's syndrome
- C Mesothelioma
- D Pulmonary embolus
- E Rheumatoid arthritis

8- Which of the following statements about germ cell tumours is true?

- A Teratomas are the commonest germ cell tumour in adults
- B Germ cell tumours account for 50% of anterior mediastinal masses
- C Seminomas occur in elderly men
- D Teratomas metastasise to the lungs and the heart
- E The five-year survival with seminoma is less than 10%

9- What is the best treatment for moderately severe OSAHS?

- A BiPAP
- B CPAP
- C Intra-oral device
- D Modafanil
- E UPPP

10- Which of the following investigations will NOT be helpful in identifying the aetiology of ARDS?

- A Blood cultures
- B Bronchoalveolar lavage
- C Echocardiogram
- D lung biopsy
- E Serial ABG measurement

11- Which of the following is NOT associated with an increased risk of lung cancer?

- A Asbestosis
- B Massive pulmonary fibrosis
- C Passive smoking

- D Siderosis
- E Silicosis

12- Which statement is true of bronchogenic cysts acquired secondary to infection?

- A They can contain blood and mucus
- B They are much commoner in women than in men
- C They are lined with lung parenchymal cells
- D They enhance with contrast CT scan
- E They are associated with Neurofibromatosis

13- Which of the following has NOT been shown to be strongly associated with Cannabis inhalation?

- A Chest infection
- B Cough
- C Euphoria
- D Lung cancer

14- Which one of the following investigations confirms the diagnosis of primary ciliary dyskinesia?

- A High-resolution computed tomography.
- B Nitric oxide breath test
- C Nasal mucociliary clearance test
- D Microscopy of ciliary structure and function
- E Sweat test

15- Which of the following statements about metabolic acidosis is true?

- A It can never occur together with respiratory acidosis
- B The bicarbonate in the ABG is usually low
- C The PaCO<sub>2</sub> in ABG is usually high though the compensatory mechanism
- D It can be successfully managed with NIV.
- E It can improve slightly with respiratory stimulants

16- Which of the following statements about metabolic acidosis is true?

- A It can never occur together with respiratory acidosis
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- D It can be successfully managed with NIV.
- E It can improve slightly with respiratory stimulants

17- What is central sleep apnoea characterized by?

- A Increase in thoracic movements
- B Increase in abdominal movements
- C Reduction in ventilatory drive
- D Significant snoring
- E Sleep fragmentation

18- In a patient presenting with a unilateral pleural effusion, which of the following is most important?

- A A bronchoscopy is always indicated.
- B The differential cell count can be diagnostic
- C Several samples of fluid should be sent for cytology
- D The fluid protein and LDH to serum protein and LDH ratio should be measured
- E Pleural fluid amylase level can be diagnostic

19- Which of the following statements about the diagnosis of PE is true?

- A A positive D-dimer level is helpful in making a diagnosis of PE
- B A normal troponin level means that a PE can be ruled out
- C A modified Wells score, used together with imaging and D-dimer level, increases the sensitivity of the test
- D VQ scan is the imaging modality of choice in most patients
- E Patients with a high Wells score and negative

20- Which of the following conditions is not a cause of ARDS?

- A Blood transfusion
- B Bowel obstruction
- C COPD
- D Near-drowning
- E Sickle cell crisis

21- What is the commonest cause of a middle mediastinal mass in an adult?

- A Bronchogenic cyst
- B Retrosternal thyroid
- C Lymphadenopathy
- D Pericardial cyst
- E Diaphragmatic hernia

22- Which of the following statements about acute PE is true?

- A All patients presenting with an acute PE should be hospitalised
- B Patients with an acute PE should be started on warfarin as the first anticoagulant

C LMWH is the initial treatment of choice for most haemodynamically stable patients with PE

D Patients who are hypotensive should be commenced on LMWH

E Rivaroxaban is the treatment of choice for patients with severe PE

**23- Which of the following is consistent with a diagnosis of pulmonary hypertension?**

A Mean PAP > 15 mmHg at right heart catheter

B Increased pulmonary vasculature on CXR

C ECG showing ST elevation in the anterior leads

D Pan-systolic murmur throughout the praecordium

E Enlarged right ventricle on transthoracic echocardiogram

**24- Which of the following is NOT a clinical feature of bronchiectasis?**

A Clubbing

B Coarse crackles

C Chronic productive cough

D Haemoptysis

E Steatorrhoea

**25- Upper Airway Resistance is NOT characterized by which of these conditions?**

A Snoring

B Sleep fragmentation

C Hypertension

D Oxygen desaturation

E Exacerbation with alcohol

**26- Which of the following statements about CAP is true?**

A Antibiotic treatment should be delayed until positive cultures and sensitivities are available

B CAP should always be managed in hospital

C CAP should be suspected in a patient who becomes unwell after several days in hospital

D CURB-65 score is of prognostic value and should be always calculated

E Diagnosis of a CAP is made from the presenting symptoms

**27- Which feature of a solitary pulmonary nodule suggests that it might be malignant?**

A Calcification

B Less than 1 cm in diameter

C Low FDG uptake on PET scan

D Smooth margins

E Thick-walled cavity

- B Pneumocystis jiroveci may be asymptomatic in the immunocompromised patient
- C Diagnosis is made after culture of the organism for eight weeks
- D Treatment is with macrolide antibiotics for six months
- E CXR will show bilateral pleural effusions

29- What is the commonest histological type of lung cancer?

- A Adenocarcinoma
- B Bronchoalveolar cell carcinoma
- C Large cell carcinoma
- D Small cell carcinoma
- E Squamous cell carcinoma

30-Which of the following statements about lymphangioleiomyomatosis (LAM) is true?

- A LAM occurs most commonly in young men
- B LAM is strongly associated with cigarette smoking
- C LAM is characterised by the deposition of thick, lipoproteinaceous material in the alveoli
- D LAM predisposes to spontaneous pneumothorax
- E Lung function demonstrates a restrictive process with reduced TLC

تسلم ورق أسئلة هذا السؤال مع ورقة الأجابه

*Good luck*