

0323-694773

Department of Pathology
Azra Naheed Medical College
Grand Test, 09 March 2017
MBBS 4th Year SEQs.
Time 70 min

1 Revision Test (Lungs, CVS, GIT)

1. Post-mortum was performed on a 24 year old male who died in a hit and run accident. Autopsy findings showed raised yellowish white plaques in the abdominal aorta. Family members of the deceased also revealed his history of smoking and hyperlipidemia.

- a. Name the lesion in the aorta and give its microscopic features. (3) *Atherosclerosis*
- b. Write four complications that may be associated with such a lesion. (4)
MI, Hypertension, Stroke, Aneurysm rupture, Vasoconstriction

2. A 56 year old male presents with raised violaceous plaques over his legs and is found to be HIV positive. A biopsy of the lesion revealed a vascular neoplasm. Further investigation revealed lesion with similar histology involving multiple abdominal viscera.

- a. Name the likely tumor? *Kaposi (1)*
- b. List three other forms of the same disease (2.5) *Patch, plaque, nodule*
- c. Which viral DNA do you expect to isolate from this tumor? (1.5) *HHV8*

3. A 25 years old male presented with abrupt onset of high grade fever and chills. He had productive cough with mucopurulent sputum. X-ray chest reveals consolidation of right lower lobe.

- a. What is the most likely diagnosis? (1) *lobar pneumonia*
- b. What are its stages? (2) *Congestion, Red hepatization, Gray hepatization, Resolution*
- c. Write down 3 complications (2) *Empyema, abscess formation, bacteremic dissemination*

4. A 65 years old male presents with history of fatigue, weakness and lower abdominal pain. He also complained of changes in the bowel habits over the past one year. Blood picture shows iron deficiency anemia. Colonoscopy revealed a mass with irregular margins and overlying ulceration and hemorrhage. Microscopic examination reveals back to back glands lined by pleomorphic cells with high N/C ratio.

- a. What is the most likely diagnosis? *HNPCC (1) Colorectal Carcinoma*
- b. Give the pathogenesis of this disease with special reference to genetic mutations. (2.5)
- c. What is the major prognostic factor for this disease. (1.5) *depth of invasion lymph node involvement*

5. A 25 year old male gave few months history of heartburn and dyspepsia. On gastroscopy gastric ulcer was seen. The gastric biopsy revealed heavy colonization by small curved spiral organisms on the surface of mucosa.

- a. What is the name of causative organisms (1) *H. pylori*
- b. What is the role of this microorganism in producing this gastric pathology? (2.5)
- c. What malignancies are associated with long term H. Pylori associated disease? (1.5)

↓
Atrophic gastritis
~~PTD~~
MALT lymphoma

6. A colectomy specimen from a 35 year old female with a history of intermittent attacks of mild diarrhea with fever and abdominal pain, shows skip lesions in the form of sharply demarcated areas of ulceration and fissuring, also involving distal ileum.

- a. what is the diagnosis? Crohn Dis. (1)
b. What features would u expect on microscopic examination of the disease segments. (4)

7. a. Tabulate the gross and microscopic features of Myocardial infarction. (2.5)

b. enumerate the complications of Myocardial Infarction. (2.5) Sh

8. a. classify tumors of lungs? (2) 714

b. which genes are more commonly implicated in lung carcinoma pathogenesis. (1.5) TGF α

c. write down the brief pathogenesis of emphysema. (1.5) 676

TP53, CDKN2A, MET, ALK, ROS, RET

14
14
14

(Patho MCQ's)

Patho MCQ's

M. Waqar (Respiration, GIT, CVS) Done

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Yousaf

Department of Pathology
Azra Naheed Medical College
Grand Test, 09 March 2017
MBBS 4th Year (MCQ)
Time 35 min.

1. A 41-year-old female presents with recurrent severe headaches and increasing visual problems. Physical examination reveals her blood pressure to be 220/150. Her symptoms are most likely to be associated with

- a. Medial calcific sclerosis
- b. Arteriosclerosis obliterans
- c. Hyperplastic arteriolosclerosis
- d. Hyaline arteriolosclerosis
- e. Thromboangiitis obliterans

2. In a patient with vasculitis, the finding of serum antineutrophil cytoplasmic autoantibodies (ANCA) that react by immunofluorescence staining in a perinuclear pattern (P-ANCA) is most suggestive of

- a. Giant cell arteritis
- b. Classic polyarteritis nodosa
- c. Wegener's granulomatosis
- d. Churg-Strauss syndrome
- e. Microscopic polyangiitis

3- During a routine physical examination, a 60-year-old white male is found to have a 5-cm pulsatile mass in his abdomen. Angiography reveals a marked dilation of his aorta distal to his renal arteries. This aneurysm is most likely the result of

- a. Atherosclerosis
- b. A congenital defect
- c. Hypertension
- d. A previous syphilitic infection
- e. Trauma

4-The most frequent cause of aortic valve incompetence and regurgitation is

- a. Latent syphilis
- b. Infective endocarditis
- c. Rheumatic fever
- d. Aortic dissection
- e. Congenital defects

5- In _____, blood is forced through aortic intima to create a blood filled space in the aortic media.

- a- Aortic dissection
- b- Berry aneurysm
- c- Mycotic aneurysm
- d- Charcot aneurysm
- e- Syphilitic aneurysm

6- Atherosclerosis usually occurs in

- a- Retina
- b- Abdominal aorta
- ~~c- Thoracic aorta~~
- d- Cerebral arteries
- e- Circle of willis

7- A 65 year old man presented in emergency with severe chest pain with sweating. He had inferior wall infarct, leading to necrosis to complete healing. During the course of time what was the time of maximum granulation tissue formation.

- a- 3 days
- b- 7-10 days
- c- 10-14 days
- d- 2-8 weeks
- e- 12-24 hours.

8- A 23-year-old woman has had worsening malaise along with a malar skin rash persisting for 3 weeks. An echocardiogram reveals small vegetations on the mitral valve and adjacent ventricular endocardium. Laboratory studies show a positive serologic test for anti-Smith antibody, with a titer of 1:2048. Which of the following is the most likely diagnosis?

- a- Infective endocarditis.
- b- Bacterial endocarditis.
- c- Non bacterial endocarditis.
- d- Libman Sacks endocarditis.
- e- Rheumatic heart disease.

9- A 22-year-old man has had increasing malaise over the past 3 weeks. On auscultation of his chest a loud systolic cardiac murmur is heard, Needle tracks are seen in his left antecubital fossa. He has splinter hemorrhages noted on fingernails, as well as painful erythematous nodules on palmar surfaces. A chest radiograph shows pronounced pulmonary edema. Which of the following laboratory test findings is most likely to be present in this patient's peripheral blood?

- a- Creatine kinase-MB of 8% with a total CK 389 U/L
- b- Positive blood culture for *Pseudomonas aeruginosa*
- c- Total serum cholesterol of 374 mg/dL
- d- Blood urea nitrogen of 118 mg/dL
- e- Antinuclear antibody titer of 1:512

10- The most common tumour of heart is

- a- Atrial myxoma
- b- Rhabdomyoma
- c- Fibroelastoma
- d- Kaposi sarcoma
- e- Angiosarcoma

F 11- Which one of the following is a correct association concerning the pathogenesis of smoking-induced emphysema?

- a. Destruction of distal acinus = centrilobular emphysema
- b. Destruction of distal acinus = paraseptal emphysema
- c. Destruction of entire acinus = panlobular emphysema
- d. Destruction of proximal acinus = centrilobular emphysema
- e. Destruction of proximal acinus = paraseptal emphysema

F 12- A routine chest x-ray performed on an asymptomatic adult male reveals a fine nodularity in the upper zones of the lungs and "eggshell" calcification of the hilar lymph nodes. The patient's serum calcium level is normal. A biopsy from his lung reveals birefringent particles within macrophages. This material is most likely to be

- a. Asbestos
- b. Beryllium
- c. Carbon
- d. Silica
- e. Talc

13- Which one of the following statements is more characteristic of ulcerative colitis than of Crohn's disease?

- a. Fibrosis may produce a "lead pipe" appearance with "creeping fat" around the outside of the gut
- b. Inflammation begins in the rectum and extends proximally without skip lesions
- c. Microscopy may reveal transmural inflammation with noncaseating granulomas
- d. Sudden abdominal pain may result from intestinal obstruction due to pericolic abscess
- e. Transmural involvement may produce fissures, fistulas, and bowel obstruction

14. A 45-year-old male presents with fever, chronic diarrhea, and weight loss. He is found to have multiple pain and swelling of his joints (migratory polyarthritis) and generalized lymphadenopathy. Physical examination reveals skin hyperpigmentation. A biopsy from his small intestines reveals the presence of macrophages in the lamina propria that contain PAS-positive cytoplasm. The best diagnosis for this individual is

- a. Abetalipoproteinemia
- b. Crohn's disease
- c. Hartnup disease
- d. Nontropical sprue
- e. Whipple's disease

15. A 45-year-old man has complaint of fever, productive cough with copious amount of foul-smell sputum since one year, what is most likely diagnosis?

- A. Esophageal carcinoma
- B. Esophageal reflux
- C. Myocardial infarction
- D. Pulmonary abscess
- E. Infarction

16. A 36-year-old woman has increasing dyspnea for 8 years but no cough or sputum production. On physical examination there is hyper-resonance to percussion. A chest radiograph reveals increased lung volumes. Which of the following laboratory findings is she most likely to have?

- A Decreased serum Ceruloplasmin
- B Increased sweat chloride
- C Decreased serum alpha-1-antitrypsin
- D Positive urine opiates
- E Positive antinuclear antibody test

17. A young man resident of Islamabad has complaint of episodic breathlessness, cough, wheezing with increased chest tightness in spring season. Which of the following is responsible of this lesion?

- A. Permanent increase of distal air spaces
- B. Mast cell activation
- C. Hemoptysis
- D. Excessive lysis of elastin
- E. Alpha 1 anti-trypsin deficiency.

18. A wedge shaped lesion on chest X-ray of 45 year male is indicative of :-

- A. Pneumonitis
- B. Pulmonary infarction
- C. Pulmonary edema
- D. ARDS
- E. Pulmonary hemorrhage

19. Which of the following inhaled pollutant is most likely to produce extensive fibrosis over the years?

- A. Silica
- B. Tobacco
- C. Formalin fumes
- D. Carbon monoxide
- E. Ozone

20. A 75 Year female has endophthalmos, miosis and ptosis. Her chest X-ray showed upper zone lung opacity. What is most likely diagnosis?

- A. Bronchopneumonia
- B. Bronchiectasis
- C. Bronchogenic carcinoma
- D. Sarcoidosis
- E. Tuberculosis

21. A 60 Years old man of tobacco smoking has barrel shape chest has complaint of dyspnea with pursed lips breathing. What are histopathological findings in this lesion?

- A. Bronchial smooth muscle hyperplasia
- B. Diffuse alveolar damage
- C. Dilatation of air spaces with destruction of alveolar wall
- D. Hyperplasia of bronchial secretory glands
- E. Lobar pneumonia

22. A 63 years male has complaint of cough with pain in his right eye. X-ray showed right upper zone opacification of lung with destruction of right first rib. What is most likely diagnosis?

- A. Bronchial pneumonia
- B. Bronchiectasis
- C. Bronchogenic carcinoma

- D. Sarcoidosis
- E. Tuberculosis

23. A 32 years male has dyspnea with wheezing and chest X-ray showed increased lucency of lung field and sputum cytology showed Charcot Leyden crystals. What is diagnosis?

- A. Bronchiectasis
- B. Aspiration pneumonia
- C. Bronchial Asthma
- D. Emphysema
- E. Chronic bronchitis

24-A 50-year-old man has had persistent nausea for 5 years with occasional vomiting. He undergoes upper GI endoscopy, and a small area of gastric fundal mucosa has loss of rugal folds. Biopsies are taken and microscopically reveal well-differentiated adenocarcinoma confined to the mucosa. An upper GI endoscopy performed 5 years previously showed a pattern of gastritis and microscopically there was chronic inflammation with the presence of. Which of the following is the most likely risk factor for his neoplasm?

- a- Inherited APC gene mutation
- b- Helicobacter pylori infection
- c- Chronic alcohol abuse
- d- Use of non-steroidal anti-inflammatory drug
- e- Vitamin B12 deficiency

25- A 58-year-old man has had increasing difficulty swallowing for the past 6 months and has lost 5 kg. No abnormal physical examination findings are noted. Upper GI endoscopy reveals a nearly circumferential mass with overlying ulceration in the mid esophageal region. Biopsy of the mass reveals pink polygonal cells with marked hyperchromatism and pleomorphism. Which of the following is the most likely risk factor for development of his disease?

- a- Iron deficiency
- b- Helicobacter pylori infection
- c- Chronic alcohol abuse
- d- High fruit diet
- e- Zenker diverticulum

26- A 38-year-old man has had upper abdominal pain for 3 months. For the past week he has had nausea. On physical examination a stool sample is positive for occult blood. An upper GI endoscopy reveals no esophageal lesions, but there is a solitary 2 cm diameter shallow, sharply demarcated ulceration of the stomach. Which of the following is most characteristic for this lesion?

- a- Antral location
- b- Potential for metastases
- c- Increased gastric acid production.
- d- No need for biopsy
- e- Accompanying pancreatic gastrinoma

27- A 39-year-old man is having a routine physical examination because of a history of colon cancer in his family. He has no abdominal tenderness or masses, and active bowel sounds are present. However, his stool is positive for occult blood. Colonoscopy is performed. There are 7 polyps found in the ascending colon: three of these are small 0.5 cm pedunculated tubular adenomas, three are 1 cm tubulovillous adenomas, and one is a 2 cm sessile villous adenoma in the cecum containing a focus of well differentiated adenocarcinoma. Which of the following is his most likely underlying diagnosis?

- a- Peutz-Jeghers syndrome
- b- Chronic ulcerative colitis
- c- Hereditary non-polyposis colon carcinoma
- d- Adenomatous polyposis coli
- e- Gardner syndrome

28- A 20-year-old man is healthy but has a family history of colon cancer with onset at a young age. There are no abnormal physical examination findings. He undergoes colonoscopy and there are over 200 tubular adenomas ranging in size from 0.2 to 1 cm on gross inspection and microscopic examination of biopsies. Which of the following genetic diseases is he most likely to have?

- a- Hereditary non-polyposis colon carcinoma syndrome
- b- Gardner syndrome
- c- Peutz-Jeghers syndrome
- d- Adenomatous polyposis coli
- e- Multiple endocrine neoplasia

29- A 25-year-old man complains of a low volume but chronic, foul smelling diarrhea for the past year. He has no nausea or vomiting. On physical examination there is no abdominal pain or masses and bowel sounds are present. His stool is negative for occult blood. Laboratory studies include a quantitative stool fat of 10 g/day. Upper GI endoscopy is performed with biopsies taken of the duodenum, and on microscopic examination show absence of villi, increased surface intraepithelial lymphocytes, and hyperplastic appearing crypts. Which of the following therapies is most likely to be useful for this man?

- a- Antibiotics
- b- Gluten-free diet
- c- Selective vagotomy
- d- Segmental duodenal resection
- e- Aromatherapy

30- A 32-year-old man has had lower abdominal pain for the past 12 hours. On physical examination there is tenderness to palpation in the right lower quadrant. Laparoscopic appendectomy is performed. On microscopic examination of the resected appendix, all the inflammation is limited to the serosa. What should the pathologist most strongly suspect in this case?

- a- Mild early acute appendicitis
- b- Chronic appendicitis
- c- Polyarteritis nodosa
- d- Peritonitis
- e- Normal appendix