MEDICAL EXAMINATION REVIEW

Pathology

Eighth Edition

702 Multiple Choice Questions with Referenced Explanatory Answers

A. Olusegun Fayemi, M.D.
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notice

The authors and the publisher of this book have made every effort to ensure that all therapeutic modalities that are recommended are in accordance with accepted standards at the time of publication.

The drugs specified within this book may not have specific approval by the Food and Drug Administration in regard to the indications and dosages that are recommended by the authors. The manufacturer's package insert is the best source of current prescribing information.

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Preface

This eighth edition of *Pathology* has been substantially revised and updated to keep in step with current trends in medical education and the continuing expansion of scientific knowledge. It is designed to help prepare for course examinations, National Boards Part I, the Federation Licensing Examination (FLEX), and examinations for foreign medical graduates.

The range of subjects included in this volume is based on the content outline of the National Board of Medical Examiners, which develops the question pool for the tests mentioned above, and reflects the scope and depth of what is taught in medical schools today. The questions themselves are organized in broad categories to give you a representative sampling of the material covered in course work, while helping you define those general areas to which you need to devote attention. For your convenience in selective study, the answers (with commentary and references) follow each section of questions.

Each question has been scrutinized by specialists to verify that it is relevant and current. The authors' care in item construction gives you questions that will provide good practice in familiarizing yourself with the format of objective-type tests. Questions of each type—one best response, matching, multiple true-false, and so on—are grouped together. They are modelled as closely as possible after those used by the Board.

Using this book, you may identify areas of strength and weakness in your own command of the subject. Specific references to widely used textbooks allow you to return to the authoritative source for further study. This volume supplements the lettered answers with brief explanations intended to prompt you to think about the choices—correct and incorrect—to put the answers in broadened perspective, and to add to your fund of knowledge. A complete bibliography appears at the end of the book. The questions and answers, taken together, emphasize problem solving and application of underlying principles as well as retention of factual knowledge.

disclaimer

The authors have made every effort to thoroughly verify the answers to the questions which appear on the following pages. However, as in any text, some inaccuracies and ambiguities may occur; therefore, if in doubt, please consult your references.

The Publisher

Contents

1 Cardiovascular System

DIRECTIONS: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the **one** that is **BEST** in each case.

1. Which of the following most accurately describes the events that lead to the characteristic features of paradoxic myocardial infarction?
   A. Atherosclerosis with thrombosis of intramyocardial arteries
   B. Severe stenosis of right coronary artery with infarction of an area supplied by left anterior descending artery
   C. Acute myocardial infarction without demonstrable occlusion of coronary arteries
   D. Acute infarction that involves the entire myocardium from the pericardium to the endocardium (transmural infarction)
   E. Acute myocardial infarction due to coronary arteritis rather than atherosclerosis

2. Patent ductus arteriosus shows all of the following features EXCEPT
   A. it is an integral lesion of the tetralogy of Fallot
   B. it has a striking female preponderance
   C. right ventricular hypertrophy
   D. development of cyanosis in the late stages
   E. a continuous systolic and diastolic murmur

3. The most specific parameter in the enzymatic diagnosis of acute myocardial infarction is the serum activity of
   A. total lactic acid dehydrogenase (LDH)
   B. total creatine phosphokinase (CPK)
   C. serum glutamic oxaloacetic transaminase (GOT)
   D. CPK-MB isoenzyme
   E. LDH_5 isoenzyme

4. Which of the following shows an inverse relationship to the risk for developing atherosclerosis?
   A. High density lipoprotein
   B. Low density lipoprotein
   C. Very low density lipoprotein
   D. Cholesterol
   E. None of the above

5. Monckeberg's arteriosclerosis is characterized by all of the following EXCEPT
   A. medial calcification
   B. involvement of predominantly small-to-medium-sized muscular arteries
   C. luminal narrowing with consequent ischemic changes
   D. rarity in persons younger than 50 years of age
   E. a distinct entity from atherosclerosis

6. The involvement of the aortic arch by an inflammatory lesion composed of adventitial mononuclear infiltrate, perivascular cuffing of vasa vasorum, and acute and/or chronic inflammation of the media is characteristic of
   A. thromboangiitis obliterans
   B. syphilitic aortitis
   C. infectious aortitis
   D. rheumatoid aortitis
   E. Takayashu's arteritis

7. Marked neutrophilic infiltrate is present at the site of an acute myocardial infarction
   A. within the first 6 hours
   B. at the end of 24 hours
   C. by the second day
   D. about the fourth day
   E. at the end of the first week

8. All of the following are characteristic of uncomplicated right-sided heart failure EXCEPT
   A. subcutaneous edema of dependent parts of the body
   B. hydrothorax
   C. passive congestion of the spleen
   D. pulmonary edema
   E. visceral venous congestion

9. High-output cardiac failure is NOT found in
   A. hyperthyroidism
   B. Paget's disease of bone
   C. severe anemia
   D. myocardial infarction
   E. thiamine deficiency

10. Fatty change with "tigroid" appearance in the myocardium is characteristic of
    A. alcoholic cardiac injury
    B. diabetes mellitus
    C. chronic anemia
    D. hyperthyroidism
    E. obesity

11. McCallum's patch is located in the
    A. right atrium
    B. left atrium
    C. right ventricle
    D. left ventricle
    E. pericardium

12. The typical features of healed chronic rheumatic valvulitis include all of the following EXCEPT
    A. scarred and rigid valve leaflets
    B. intercommissural adhesions
    C. thickened and fused chordae tendinae
    D. calcification of valve leaflets
    E. flattening of trabeculae carneae

13. A typical Aschoff nodule does NOT include
    A. Anitschkow's cells
    B. multinucleated histiocytic giant cells
    C. multinucleated myogenic giant cells
    D. fibrinoid necrosis
    E. fibroblasts

14. The involvement of muscular arteries as the principal site of lesions favors which of the following?
    A. Systemic lupus erythematosus
    B. Rheumatoid arthritis
    C. Wegener's granulomatosis
    D. Polyarteritis nodosa
    E. Hypersensitivity angiitis

15. Right ventricular failure is most commonly due to
    A. aortic stenosis
    B. left-sided heart failure
    C. mitral valve disease
    D. coronary artery disease
    E. congenital heart disease

DIRECTIONS: For each of the questions or incomplete statements below, **ONE** or **MORE** of the answers or completions given is correct. Select

A if only *1, 2, and 3* are correct
B if only *1 and 3* are correct
C if only *2 and 4* are correct
D if only *4* is correct
E if all are correct

16. The essential component(s) of the atherosclerotic lesion is (are)
    1. lipid deposition
    2. smooth muscle proliferation
    3. accumulation of connective tissue fibers and matrix
    4. chronic inflammatory cells

17. Infective endocarditis in the drug addict is characterized by which of the following?
    1. The tricuspid valve is involved in more than 50% of cases
    2. *Candida* endocarditis is more common in this group of patients when compared with the general population
    3. Most addicts with endocarditis have no preexisting valvular disease
    4. *Staphylococcus aureus* is isolated most commonly

18. In hypertrophic cardiomyopathy (CMP)
    1. there is a disproportionate thickening of the interventricular septum
    2. the ventricular cavities are often dilated
    3. distinctive microscopic changes consisting of myocardial fiber disarray are usually found
    4. intraventricular thrombosis is common

Directions Summarized				
A	B	C	D	E
1,2,3 only	1,3 only	2,4 only	4 only	All are correct

19. A strong relationship exists between malignant tumors and which of the following?
    1. Phlegmasia alba dolens
    2. Migratory thrombophlebitis
    3. Phlebothrombosis
    4. Superior vena cava syndrome

20. The prognosis of tetralogy of Fallot is worse than that of Eisenmenger's complex primarily due to
    1. hypertrophy of right ventricle
    2. dextroposition of large vessels
    3. ventricular septal defect
    4. prepulmonic valvular stenosis

21. The initiation of thrombi in the coronary arteries is attributed to
    1. roughening of the endothelium over the degenerated area
    2. softening, breakdown, rupture, and ulceration of a plaque
    3. narrowing of the lumen by a plaque
    4. hemorrhage in an atheromatous lesion with disruption of tissue

22. The essential lesion of coronary atherosclerosis is found in the
    1. adventitia
    2. media
    3. endothelium
    4. intima

23. Uncomplicated mitral stenosis is characterized by
    1. a normal-sized small left ventricle
    2. dilatation and hypertrophy of the left atrium
    3. marked chronic passive congestion of the lungs
    4. left ventricular hypertrophy

24. Available evidence points to an immunologic mechanism in which of the following cardiomyopathies?
    1. Rheumatoid arthritis
    2. Rheumatic fever
    3. Systemic lupus erythematosus
    4. Endomyocardial fibrosis

DIRECTIONS: Each group of questions below consists of five lettered headings followed by a list of numbered words, phrases or statements. For **each** numbered word, phrase or statement, select the **one** lettered heading that is most closely associated with it. Each lettered heading may be selected once, more than once, or not at all.

A. Serous pericarditis
B. Fibrinous pericarditis
C. Suppurative pericarditis
D. Constrictive pericarditis
E. Hemorrhagic pericarditis

25. Pyogenic coccal infection

26. *Mycobacterium tuberculosis*

27. Azotemia

28. Metastatic neoplasm

29. Collagen diseases

30. Rheumatic fever

31. Myocardial infarction

A. Muscular arteries
B. Small arteries and arterioles
C. Arterioles and capillaries
D. Capillaries, venules, and arterioles
E. Arteries, veins, and nerves

32. Hypersensitivity angiitis

33. Systemic lupus erythematosus

34. Polyarteritis nodosa

35. Buerger's disease

36. Wegener's granulomatosis

37. Rheumatic arteritis

38. Rheumatoid arteritis

A. Infective endocarditis
B. Atypical verrucous endocarditis
C. Nonbacterial thrombotic endocarditis
D. Rheumatic endocarditis
E. Fungal endocarditis

39. Flat, spreading on both surfaces of valve leaflets

40. Large and friable vegetations at closure margins

41. Commonly associated with malignant tumors

42. Vegetations along closure margins

43. Minor manifestation of overwhelming systemic infection

44. Observed in acute SLE

45. Of controversial clinical significance