



مقدم من فريق أفق الطبي



Growth Disturbances - 50 Multiple Choice Questions (MCQs) with Answers

1. What is agenesis?

- A) Complete failure of an organ to develop
 - B) Incomplete development of an organ
 - C) Shrinkage of an organ due to disease
 - D) Increase in the size of an organ
- Answer: Complete failure of an organ to develop

2. Which of the following describes hypoplasia?

- A) Complete absence of an organ
 - B) Rudimentary development of an organ
 - C) Decreased organ size due to lack of development
 - D) Increase in organ size due to increased workload
- Answer: Decreased organ size due to lack of development

3. What is the difference between aplasia and hypoplasia?

- A) Aplasia refers to complete absence, while hypoplasia refers to incomplete development
 - B) Aplasia is reversible, while hypoplasia is irreversible
 - C) Aplasia only affects bones, while hypoplasia affects muscles
 - D) Hypoplasia occurs later in life, while aplasia is congenital
- Answer: Aplasia refers to complete absence, while hypoplasia refers to incomplete development

4. Which of the following is an example of physiological atrophy?

- A) Atrophy of the liver due to cirrhosis
 - B) Atrophy of the thymus after puberty
 - C) Muscle atrophy due to prolonged bed rest
 - D) Brain atrophy due to aging
- Answer: Atrophy of the thymus after puberty

5. What is the main cause of pathological atrophy?

- A) Increased blood supply
 - B) Decreased workload or loss of function
 - C) Increased oxygen demand
 - D) Excess protein synthesis
- Answer: Decreased workload or loss of function

6. Which type of atrophy is caused by prolonged immobilization of a limb after fracture?

- A) Hormonal atrophy
- B) Disuse atrophy
- C) Neuropathic atrophy
- D) Vascular atrophy

Answer: Disuse atrophy

7. Which of the following is an example of neuropathic atrophy?

- A) Muscle atrophy due to lack of use
- B) Atrophy of muscles due to poliomyelitis
- C) Atrophy of the kidney due to atherosclerosis
- D) Atrophy of the uterus after menopause

Answer: Atrophy of muscles due to poliomyelitis

8. What is the primary cause of pressure atrophy?

- A) Increased blood flow
- B) Constant pressure on cells and their blood supply
- C) Excess protein production
- D) Increased nerve stimulation

Answer: Constant pressure on cells and their blood supply

9. What type of atrophy is seen in cases of chronic ischemia?

- A) Disuse atrophy
- B) Vascular atrophy
- C) Hormonal atrophy
- D) Hypertrophic atrophy

Answer: Vascular atrophy

10. Which of the following is a key feature of hypertrophy?

- A) Increase in cell number
- B) Increase in cell size
- C) Increase in blood vessel formation
- D) Decrease in metabolic activity

Answer: Increase in cell size

11. What is an example of physiological hypertrophy?

- A) Left ventricular hypertrophy in hypertension
- B) Enlargement of the uterus during pregnancy
- C) Hypertrophy of the bladder due to obstruction
- D) Hypertrophy of kidney due to renal failure

Answer: Enlargement of the uterus during pregnancy

12. What type of hypertrophy occurs in response to increased workload?

- A) Hormonal hypertrophy
- B) Compensatory hypertrophy
- C) Adaptive hypertrophy
- D) Hyperplastic hypertrophy

Answer: Adaptive hypertrophy

13. What is an example of compensatory hypertrophy?

- A) Enlargement of one kidney after removal of the other
- B) Hypertrophy of cardiac muscle due to hypertension
- C) Hypertrophy of skeletal muscles in bodybuilders
- D) Hyperplasia of bone marrow after hemorrhage

Answer: Enlargement of one kidney after removal of the other

14. What is the main difference between hypertrophy and hyperplasia?

- A) Hypertrophy is an increase in cell number, while hyperplasia is an increase in cell size
- B) Hypertrophy occurs only in non-dividing cells, while hyperplasia occurs in dividing cells
- C) Hyperplasia occurs only in muscles, while hypertrophy occurs in glands
- D) Both refer to the same process

Answer: Hypertrophy occurs only in non-dividing cells, while hyperplasia occurs in dividing cells

15. Which of the following tissues is least likely to undergo hyperplasia?

- A) Skin
- B) Liver
- C) Cardiac muscle
- D) Bone marrow

Answer: Cardiac muscle

16. What is an example of hormonal hyperplasia?

- A) Prostate enlargement due to aging
- B) Increased bone marrow production after hemorrhage
- C) Enlargement of the uterus due to estrogen stimulation
- D) Thickening of skin due to chronic irritation

Answer: Enlargement of the uterus due to estrogen stimulation

17. Which of the following is a cause of compensatory hyperplasia?

- A) Liver regeneration after partial hepatectomy

- B) Hypertrophy of the heart due to hypertension
 - C) Enlargement of muscles in athletes
 - D) Hyperplasia of prostate in elderly men
- Answer: Liver regeneration after partial hepatectomy

18. What is metaplasia?

- A) Transformation of one differentiated cell type into another
 - B) Increase in cell number
 - C) Malignant transformation of normal cells
 - D) Increase in cell size
- Answer: Transformation of one differentiated cell type into another

19. What is an example of squamous metaplasia?

- A) Conversion of columnar epithelium to stratified squamous epithelium in the bronchial mucosa of smokers
 - B) Transformation of fibroblasts into osteoblasts
 - C) Liver regeneration after injury
 - D) Increased mitotic activity in epithelial cells
- Answer: Conversion of columnar epithelium to stratified squamous epithelium in the bronchial mucosa of smokers

20. What is a characteristic feature of dysplasia?

- A) Increased uniformity of cells
 - B) Loss of cellular polarity and increased mitotic figures
 - C) Decreased nuclear size
 - D) Increased cell differentiation
- Answer: Loss of cellular polarity and increased mitotic figures

21. What is carcinoma in situ?

- A) Cancer that has spread to distant organs
 - B) Localized severe dysplasia confined to the epithelium without invasion of the basement membrane
 - C) Benign tumor growth
 - D) Atrophy of glandular tissue
- Answer: Localized severe dysplasia confined to the epithelium without invasion of the basement membrane

22. What is a major risk factor for carcinoma in situ?

- A) Chronic irritation and inflammation

- B) Increased blood flow to tissues
 - C) High protein diet
 - D) Increased oxygen availability
- Answer: Chronic irritation and inflammation

23. Which of the following best differentiates neoplasia from hyperplasia?

- A) Neoplasia is reversible, while hyperplasia is not
 - B) Hyperplasia stops when the stimulus is removed, while neoplasia continues
 - C) Neoplasia occurs only in non-dividing cells
 - D) Hyperplasia occurs only in malignant tissues
- Answer: Hyperplasia stops when the stimulus is removed, while neoplasia continues

24. What is leukoplakia?

- A) White patches on mucosal surfaces due to squamous metaplasia
 - B) Increased red blood cell production
 - C) Excess lipid accumulation in tissues
 - D) A benign tumor of glandular origin
- Answer: White patches on mucosal surfaces due to squamous metaplasia

25. Which organ is most commonly affected by carcinoma in situ?

- A) Heart
- B) Cervix
- C) Skeletal muscle
- D) Liver

Answer: Cervix

Growth Disturbances - 50 Multiple Choice Questions (MCQs) with Answers

26. Which type of atrophy occurs due to prolonged loss of innervation?

- A) Disuse atrophy
 - B) Neuropathic atrophy
 - C) Vascular atrophy
 - D) Pressure atrophy
- Answer: Neuropathic atrophy

27. What is the hallmark feature of hypertrophy?

- A) Increase in cell number
- B) Increase in cell size
- C) Decrease in metabolic activity
- D) Loss of cellular differentiation

Answer: Increase in cell size

28. What is the primary stimulus for physiological hypertrophy in the heart?

- A) Chronic hypoxia
- B) Increased workload due to exercise
- C) Excessive lipid accumulation
- D) Ischemic injury

Answer: Increased workload due to exercise

29. Which of the following is an example of compensatory hypertrophy?

- A) Hypertrophy of the urinary bladder due to obstruction
- B) Hypertrophy of the myocardium in hypertension
- C) Hypertrophy of the remaining kidney after nephrectomy
- D) Hypertrophy of the muscles due to steroid use

Answer: Hypertrophy of the remaining kidney after nephrectomy

30. Which of the following conditions is associated with hormonal hyperplasia?

- A) Endometrial hyperplasia due to excessive estrogen stimulation
- B) Prostatic hyperplasia in elderly men
- C) Liver hyperplasia after partial hepatectomy
- D) Both A and B

Answer: Both A and B

31. What type of metaplasia occurs in chronic smokers?

- A) Intestinal metaplasia
- B) Squamous metaplasia of the bronchial epithelium
- C) Mesenchymal metaplasia
- D) Atrophic metaplasia

Answer: Squamous metaplasia of the bronchial epithelium

32. Which of the following best describes metaplasia?

- A) It is always irreversible
- B) It represents the transformation of one differentiated cell type into another
- C) It is a form of malignant neoplasia
- D) It involves an increase in cell size

Answer: It represents the transformation of one differentiated cell type into another

33. Which of the following is a well-known example of mesenchymal metaplasia?

- A) Ossification in soft tissues
- B) Squamous metaplasia of the cervix
- C) Hyperplasia of the liver
- D) Leukoplakia of the oral cavity

Answer: Ossification in soft tissues

34. What is dysplasia characterized by?

- A) Loss of cellular uniformity and architectural orientation
 - B) Increase in cellular differentiation
 - C) Decrease in nuclear size
 - D) Regression of tissue to a more primitive state
- Answer: Loss of cellular uniformity and architectural orientation

35. What is the primary risk factor for dysplasia?

- A) Chronic irritation or inflammation
 - B) Excessive physical activity
 - C) Increased oxygen supply
 - D) High protein diet
- Answer: Chronic irritation or inflammation

36. What does carcinoma in situ indicate?

- A) A benign neoplasm
 - B) A pre-invasive stage of cancer
 - C) An irreversible form of metaplasia
 - D) A type of atrophy
- Answer: A pre-invasive stage of cancer

37. Which of the following is a common site for carcinoma in situ?

- A) Myocardium
 - B) Cervix
 - C) Liver
 - D) Skeletal muscle
- Answer: Cervix

38. What differentiates neoplasia from hyperplasia?

- A) Neoplasia continues even after the stimulus is removed
- B) Neoplasia is always reversible
- C) Hyperplasia is a type of cancer
- D) Neoplasia occurs only in muscle cells

Answer: Neoplasia continues even after the stimulus is removed

39. What is the term used for precancerous leukoplakia of the oral cavity?

- A) Squamous metaplasia
- B) Dysplasia
- C) Hyperplasia
- D) Aplasia

Answer: Dysplasia

40. Which of the following best defines tumor metaplasia?

- A) The transformation of tumor cells into benign cells
- B) The presence of different cell types within a tumor
- C) The transition from a well-differentiated tumor to an undifferentiated tumor
- D) The ability of cancer cells to metastasize

Answer: The presence of different cell types within a tumor

41. Which condition is most commonly associated with intestinal metaplasia?

- A) Chronic gastritis
- B) Osteoporosis
- C) Ischemic heart disease
- D) Pulmonary fibrosis

Answer: Chronic gastritis

42. Which of the following is an irreversible cellular adaptation?

- A) Metaplasia
- B) Hyperplasia
- C) Dysplasia
- D) Neoplasia

Answer: Neoplasia

43. What is the characteristic histological finding in carcinoma in situ?

- A) Complete disruption of the basement membrane
- B) Cellular atypia without invasion of the basement membrane
- C) Extensive necrosis
- D) Complete absence of mitotic figures

Answer: Cellular atypia without invasion of the basement membrane

44. What type of metaplasia is found in Barrett's esophagus?

- A) Squamous to columnar metaplasia
- B) Columnar to squamous metaplasia
- C) Mesenchymal to epithelial metaplasia
- D) Osteoblastic metaplasia

Answer: Squamous to columnar metaplasia

45. What is a major complication of long-standing metaplasia?

- A) Progression to dysplasia and neoplasia
 - B) Increased blood flow to the tissue
 - C) Decreased metabolic activity
 - D) Complete tissue atrophy
- Answer: Progression to dysplasia and neoplasia

46. Which of the following features is typical of dysplasia?

- A) Decreased nuclear-to-cytoplasmic ratio
- B) Increased cellular pleomorphism
- C) Decreased mitotic activity
- D) Increased cellular differentiation

Answer: Increased cellular pleomorphism

47. What is the difference between metaplasia and dysplasia?

- A) Metaplasia is reversible, while dysplasia can be precancerous
- B) Dysplasia is a normal physiological adaptation
- C) Metaplasia is always malignant
- D) Dysplasia involves only glandular cells

Answer: Metaplasia is reversible, while dysplasia can be precancerous

48. What histological feature is most characteristic of dysplasia?

- A) Uniform nuclear size
 - B) Loss of cell polarity and increased mitotic figures
 - C) Increased intercellular junctions
 - D) Absence of nuclear atypia
- Answer: Loss of cell polarity and increased mitotic figures

49. What is an example of a precancerous lesion?

- A) Dysplasia of the cervix
- B) Atrophy of the brain
- C) Hyperplasia of the liver
- D) Hypertrophy of skeletal muscle

Answer: Dysplasia of the cervix

50. What is the final step in the progression from dysplasia to malignancy?

- A) Invasion of the basement membrane
 - B) Increased cell size
 - C) Decrease in nuclear atypia
 - D) Decrease in mitotic activity
- Answer: Invasion of the basement membrane