MULTIPLE CHOICE

BR MALIGNANT PATHOLOGY - PRACTICE SET - ANSWER KEY

1. Paget disease of the breast arises in which location?

A. Upper outer quadrant terminal ductal lobular units
B. Axillary tail of Spence
C. Pectoralis major fascia
D. Retroareolar ducts, growing toward and into the nipple and areola

2. Which statement about Paget disease is correct?

A. It is benign and requires no further workup
B. It is usually associated with an underlying ductal carcinoma in the retroareolar tissue
C. It always occurs without any underlying breast malignancy
D. It is most common in women under 30

3. Inflammatory carcinoma of the breast produces its characteristic clinical appearance because tumor cells obstruct which structure?

A. Lactiferous ducts
B. Dermal lymphatic channels
C. Cooper ligaments
D. Internal mammary artery

4. Why are microcalcifications often more difficult to detect with ultrasound than with mammography?

A. They are very small and surrounded by heterogeneous breast tissue, so they may not cast shadows or contrast well sonographically
B. Microcalcifications dissolve in the acoustic gel
C. They are obscured by the implant shell in all patients
D. Ultrasound cannot image any calcium-containing structure

5. Invasive lobular carcinoma is best described as which of the following?

A. A rare densely cellular cancer with central necrosis
B. The second most common invasive breast cancer, often bilateral, multicentric, or multifocal
C. A retroareolar cancer that spreads into the nipple epidermis
D. The most common noninvasive breast cancer, confined to the lobule

6. Comedocarcinoma refers to a form of which entity?

A. High-grade ductal carcinoma in situ with central necrosis filling the ducts
B. A benign form of intraductal papilloma
C. A variant of mucinous carcinoma
D. A subtype of inflammatory breast carcinoma

7. Which of the following statements about lobular carcinoma in situ (LCIS) is correct?

A. It always presents as a discrete sonographic mass
B. It typically requires no clinical follow-up after diagnosis
C. It is the most common invasive breast cancer
D. It is precancerous and is a marker for increased risk of future invasive breast cancer

8. A 60-year-old presents with a hard, fixed, firm breast mass with nipple retraction and skin flattening; biopsy demonstrates extensive fibrous proliferation around invasive ductal cells. Which subtype is most consistent with these findings?

A. Scirrhous carcinoma
B. Tubular carcinoma

C. Medullary carcinoma
D. Mucinous carcinoma

9. Primary breast cancer most commonly spreads first to which of the following sites?

A. Adrenal glands
B. Liver
C. Brain
D. Axillary lymph nodes

10. The most common distant metastatic site for breast cancer is which of the following?

A. Brain
B. Bone
C. Spleen
D. Pancreas

11. Which sonographic finding is most characteristic of inflammatory carcinoma?

A. Diffuse skin thickening with increased echogenicity of subcutaneous fat and dilated lymphatic channels
B. Hyperechoic fat necrosis with eggshell calcification
C. Well-circumscribed anechoic mass with posterior enhancement
D. Echogenic intraductal mass with intact ductal walls

12. Which breast malignancy is described as the most common noninvasive breast cancer and arises from epithelial cells confined within the duct?

A. Invasive ductal carcinoma
B. Ductal carcinoma in situ
C. Invasive lobular carcinoma
D. Inflammatory carcinoma

13. Which sonographic finding within a hypoechoic solid breast mass increases suspicion for malignancy when present?

A. Posterior acoustic enhancement
B. Edge refraction shadowing
C. Punctate microcalcifications
D. Thin echogenic pseudocapsule

14. Which breast cancer accounts for approximately 85% of all breast malignancies?

A. Invasive lobular carcinoma
B. Invasive ductal carcinoma, not otherwise specified
C. Ductal carcinoma in situ
D. Medullary carcinoma

15. Mucinous (colloid) carcinoma of the breast is best described sonographically as which of the following?

A. A soft mass with smooth margins and posterior enhancement, often resembling a fibroadenoma
B. A taller-than-wide hypoechoic mass with dense posterior shadowing
C. A retroareolar mass with nipple discharge and ductal extension
D. A diffusely infiltrative process with skin thickening

16. Mucinous (colloid) carcinoma is most commonly seen in which patient population?

A. Pregnant women in the third trimester
B. Women in their early 20s
C. Adolescent girls
D. Women older than 75 years

17. Skin dimpling and nipple retraction in association with a breast mass are caused mainly by which mechanism?

A. Tumor spiculations pulling on Cooper ligaments
B. Edema of the subcutaneous fat from cyst rupture
C. Increased vascular flow within the nipple
D. Dilation of the lactiferous ducts

18. Sharp angular margins on a solid breast mass are most associated with which of the following?

A. Lipoma
B. Malignancy
C. Simple cyst

D. Fibroadenoma

19. Tubular carcinoma of the breast is best characterized by which of the following statements?

A. An aggressive cancer that frequently metastasizes early
B. A noninvasive cancer confined within intact ducts
C. An uncommon, extremely well-differentiated form of invasive ductal carcinoma with a favorable prognosis
D. A tumor that arises in the nipple epidermis

20. Compared with invasive ductal carcinoma, invasive lobular carcinoma generally has which prognostic profile?

A. A better prognosis with rare nodal involvement
B. A poorer prognosis with higher rates of bilateral and multifocal disease
C. An identical prognosis with no difference in laterality patterns
D. An excellent prognosis approaching that of tubular carcinoma

21. Which subtype of breast cancer is most often bilateral, multicentric, or multifocal and may be difficult to detect because it often grows as sheets of cells without forming a discrete mass?

A. Tubular carcinoma
B. Invasive lobular carcinoma
C. Inflammatory carcinoma
D. Invasive ductal carcinoma, NOS

22. Which feature on color or power Doppler imaging is most suspicious for malignancy in a solid breast mass?

A. No detectable internal flow
B. A single peripheral vessel running along a smooth capsule
C. Flow confined to surrounding normal parenchyma
D. Penetrating vessels and a feeder vessel within the lesion

23. A breast mass demonstrates the following: marked hypoechogenicity, taller-than-wide orientation, spiculated margins, dense posterior shadowing, and internal microcalcifications. Which entity is most consistent with these findings?

A. Invasive ductal carcinoma
B. Simple cyst
C. Fibroadenoma
D. Lipoma

24. Which breast malignancy is densely cellular, often well-circumscribed and lobulated, may have central necrosis, and tends to occur in women younger than 50?

A. Medullary carcinoma
B. Scirrhous carcinoma
C. Tubular carcinoma
D. Inflammatory carcinoma

25. In which quadrant of the breast are the majority of breast cancers located?

A. Lower outer quadrant
B. Lower inner quadrant
C. Upper inner quadrant
D. Upper outer quadrant