EDUCATIONAL OBJECTIVES
1. To understand the diagnostic approach to the patient found to have a neuroendocrine tumor of the breast and the importance of differentiating whether it is a primary or metastatic tumor.
2. To understand some of the specific characteristics of neuroendocrine tumors, particularly as they present as breast masses.
3. To understand some of the treatment options available for patients with neuroendocrine tumors of the breast.

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QUESTIONS
1. Neuroendocrine tumors include all except:
   A. Carcinoid tumors
   B. Islet cell tumors
   C. Neuroblastomas
   D. Ductal cell breast carcinoma
   E. Small cell carcinoma of the lung
   Answer:
   - A
   - B
   - C
   - D
   - E
   - A and C
   - B and D

2. Which of the following markers is not typically seen in neuroendocrine tumors:
   A. Chromogranin
   B. Cytokeratin 7
   C. Synaptophysin
   D. Neuron-specific enolase
   Answer:
   - A
   - B
   - C
   - D
   - All of the above
   - None of the above

3. Which of the following statements is/are incorrect:
   A. Neuroendocrine tumors originate from neoplastic transformation of enterochromaffin or Kulchitsky cells.
   B. Primary neuroendocrine tumors of the breast may express estrogen (ER) and progesterone (PR) receptors while metastatic neuroendocrine tumors are generally negative for ER and PR.
   C. In general, primary neuroendocrine tumors of the breast have less tendency for local and distant relapse with a better overall survival when compared to primary breast cancer.
   D. The mean age of presentation of patients with metastatic neuroendocrine tumors to the breast is 10 years younger than patients with primary neuroendocrine tumors of the breast.
   Answer:
   - A
   - B
   - C
   - D
   - A and C
   - B and D
   - All of the Above

4. Carcinoid syndrome, which may include flushing, diarrhea, and bronchospasm, occurs in a majority of patients with neuroendocrine tumors.
   Answer:
   - True
   - False
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