Molecular Tumor Board: Using Molecular Profiling to Improve the Care of Patients with Advanced Breast Cancer

THE CORRECT ANSWER IS INDICATED WITH YELLOW HIGHLIGHTING.

1. **BRCA1 mutations are most commonly associated with _____ breast cancer.**
   a. HER2-positive
   b. ER/PR-positive, HER2-negative
   c. Triple-negative

2. **Mutations in which of the following genes may indicate homologous repair deficiency and susceptibility to PARP inhibition?**
   a. PALB2
   b. ESR1
   c. TET2

3. **Estrogen receptor mutations typically occur in patients who have previously received _____.**
   a. Tamoxifen
   b. Aromatase inhibitors
   c. PARP inhibitors

4. **Because of the potential heterogeneity of metastatic breast cancer, ESR1 mutations are more likely to be detected by biopsy than by plasma testing.**
   a. True
   b. False

5. **Compared to antibodies used in the past, recent antibodies for detecting ER-positive disease _____.**
   a. Allow detection of ER-positivity in samples that previously would have been categorized as ER-negative
   b. Provide more useful information about endocrine sensitivity for patients with ER-positive test results
   c. Result in fewer strongly positive samples (Allred scores of 7 or 8)

6. **The number of tumor-infiltrating lymphocytes has the highest prognostic value in _____ breast cancer.**
   a. HER2-positive
   b. ER/PR-positive, HER2-negative
   c. Triple-negative

7. **Retrospective analysis of the Phase III SoFEA study comparing exemestane to fulvestrant-containing regimens for patients with prior sensitivity to nonsteroidal aromatase inhibitors suggests _____ for patients with ESR1 mutations.**
   a. A significant progression-free survival benefit with exemestane compared to fulvestrant
   b. A significant progression-free survival benefit with fulvestrant compared to exemestane
   c. No significant difference in progression-free survival between exemestane and fulvestrant

8. **Immunotherapy may be most effective in triple-negative breast cancer because _____ is lower than in other types of breast cancer.**
   a. Density of tumor-infiltrating lymphocytes
   b. Genomic stability
   c. PD-L1 expression

9. **Tumor-infiltrating lymphocytes are strongly associated with androgen receptor positivity.**
   a. True
   b. False

10. **Somatic HER2 mutations in breast cancer _____.**
    a. Can be detected by standard IHC and FISH
    b. Result in signaling disruption similar to that with HER2 amplification
    c. Are more common in lobular cancer than nonlobular cancer