Tumor Board Tuesday – Dr. Eleonora Teplinsky, 10/18/2022:
Early-stage Breast Cancer HER2+

Posttest Rationale

1. **What adjuvant therapy would you select for a patient with localized (pT2N0), HR-, HER2+ BC who underwent resection (R0)?**

    a. T-DM1
    b. T-DXd
    c. TCH
    d. TCHP

Rationale: The NCCN guidelines recommend TCH (docetaxel/carboplatin/trastuzumab) for patients with pT1-3, pN0 or pN1mi, and tumor >1 cm; in the phase 3 BCIRG-006 trial, TCH plus 52 weeks of trastuzumab demonstrated similar efficacy to AC-T plus 52 weeks of trastuzumab (5-year DFS rate: 81% vs 84%) and a more favorable risk-benefit profile (fewer acute toxic effects, lower risk of cardiotoxicity and leukemia) in patients with HER2-positive early breast cancer. TCH or TCHP (docetaxel/carboplatin/trastuzumab/pertuzumab) may be considered for patients with pT1-3 and pN+ disease. T-DM1 in an option for patients with residual disease after preoperative therapy, and T-DXd is being compared to T-DM1 in this patient population in the DETINY-Breast05 trial.

References: Slamon D, Eiermann W, Robert N, et al. Adjuvant trastuzumab in HER2-positive breast cancer. *N Engl J Med*. 2011;365(14):1273-83. doi:10.1056/NEJMoa0910383

National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®): Breast Cancer (v2.2022). Updated December 20, 2021. Accessed April 13, 2022. https://www.nccn.org/professionals/physician_gls/pdf/breast.pdf

ClinicalTrials.gov. A Study of Trastuzumab Deruxtecan (T-DXd) Versus Trastuzumab Emtansine (T-DM1) in High-risk HER2-positive Participants With Residual Invasive Breast Cancer Following Neoadjuvant Therapy (DESTINY-Breast05). NCT04622319. Updated May 4, 2022. Accessed May 19, 2020. https://clinicaltrials.gov/ct2/show/NCT04622319

2. **What adjuvant treatment approach (FDA-approved therapy or clinical trial) would you select for a patient with early-stage breast cancer and residual disease after completion of HER2-targeted neoadjuvant therapy?**

    a. T-DM1
    b. T-DXd (CT)
    c. TCH
    d. TCHP

Rationale: T-DM1 is FDA approved and guidelines recommended for the adjuvant treatment of patients with residual invasive disease after neoadjuvant therapy. T-DXd is being evaluated in this setting and may be considered in the context of a clinical trial, ie, DESTINY-Breast05. TCH or TCHP are recommended in this setting if a patient discontinues T-DM1 for toxicity.

References: National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®): Breast Cancer (v4.2022). Updated June 21, 2022. Accessed August 1, 2022. https://www.nccn.org/professionals/physician_gls/pdf/breast.pdf

ClinicalTrials.gov. A Study of Trastuzumab Deruxtecan (T-DXd) Versus Trastuzumab Emtansine (T-DM1) in High-risk HER2-positive Participants With Residual Invasive Breast Cancer Following Neoadjuvant Therapy (DESTINY-Breast05). NCT04622319. Updated May 4, 2022. Accessed May 19, 2020. https://clinicaltrials.gov/ct2/show/NCT04622319