## Tumor Board Tuesday – Dr. Hope S. Rugo & Dr. Laura Huppert, 08/15/2022:

## HER2 Low Breast Cancer and ADCs - TDXd

## **Posttest Rationale**

- 1. What treatment would you select for a patient with TNBC whose disease is found to be HER2-low following relapse after 1L chemotherapy?
  - a) Margetuximab
  - b) Trastuzumab
  - c) T-DM1
  - <mark>d) T-DXd</mark>

**Rationale:** T-DXd is the best choice for this patient and recently received FDA approval for adults with unresectable or metastatic HER2-low breast cancer who have received a prior chemotherapy in the metastatic setting or developed disease recurrence during or within six months of completing adjuvant chemotherapy. In the phase 3 DESTINY-Breast-04 trial, T-DXd compared with chemotherapy prolonged mPFS (9.9 vs 5.1 months) and mOS (23.4 vs 16.8 months) in patients with unresectable or metastatic breast cancer. Margetuximab was evaluated in a phase 1 trial that included patients that were negative for HER2 expression (IHC 0 or IHC, FISH non-amplified); partial response occurred only in HER2-positive patients (IHC 3+ or IHC 2+ and FISH amplified). Adjuvant trastuzumab ± chemotherapy was evaluated in a phase 3 trial that enrolled patients with high-risk, HER2-negative (FISH negative and IHC 1+ or 2+), invasive breast cancer, but the combination did not improve IDFS (5-year IDFS: 89.8% v 89.2%; HR) regardless of HER2 expression. In retrospective analyses, T-DM1 resulted in significantly inferior PFS and ORR in patients with HER2-low vs HER2-positive disease who had received prior HER2-directed therapy and chemotherapy.

**References:** FDA. FDA approves fam-trastuzumab deruxtecan-nxki for HER2-low breast cancer. Accessed August 8, 2022. https://www.fda.gov/drugs/resources-information-approved-drugs/fda-approves-fam-trastuzumab-deruxtecan-nxki-her2-low-breast-cancer

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