



A New Hope in Metastatic Breast Cancer

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Initial Presentation

- ▶ 71 years old woman noticed a mass in her left breast on April 2017
- ▶ PMHX: Hypertension ECOG 0
- ▶ Breast Sonomammography:
 - ▶ Left breast: Mass at 12 o clock measuring 6.38cm x 2.58 cm x 4.59cm
 - ▶ Left sided two axillary lymph nodes largest measuring 2.15cm x 1.22cm x 1.39cm
 - ▶ Right Breast: No masses seen
- ▶ Biopsy Infiltrating Lobular Carcinoma ER+/PR+/Her2-
- ▶ PET CT Scan: Known left breast mass with left axillary lymphadenopathy. No distant metastasis.

Initial Treatment

- ▶ Dose Dense Doxorubicin + Cyclophosphamide x 4 cycles
- ▶ Weekly Paclitaxel x 12 cycles. Finished treatment on 04/09/2018
- ▶ Anastrozole started on 04/30/2018
- ▶ Left Mastectomy on 08/15/2018
 - ▶ Invasive Lobular Carcinoma, Grade 1. Multiple small foci, largest 0.4cm
 - ▶ Sentinel Lymph Nodes Positive 4/4
 - ▶ Axillary dissection not performed by surgeon
- ▶ Radiotherapy to chest wall and axillary nodes completed on 3/2019

Relapse

- ▶ Left Subtrochanteric Femur pathologic fracture on July 25, 2021
- ▶ Total hip replacement July 30,2021
- ▶ Pathology: Signet ring cell Breast cancer
 - ▶ ER+/PR+/**Her-2 1+** Ki67: 30-35%
 - ▶ MSI Stable BRCA negative
 - ▶ Positive for PIK3
- ▶ PET CT Scan 09/14/2021: Multiple bone metastasis including skull and L5
- ▶ Lumbosacral spine Xray: Multilevel pathological fractures of lumbar and low thoracic spine.

Relapse Treatment

- ▶ Radiotherapy Lumbar spine from 09/22/2021 to 10/05/2021
- ▶ Denosumab started on 10/13/2021
- ▶ Started on Fulvestrant (9/29/2021) and Palbociclib (10/28/2021)

- ▶ Initial response to treatment with Fulvestrant and Palbociclib
 - ▶ PET CT Scan 02/11/2022: Skeletal disease is metabolically dormant

Second Relapse

- ▶ Subcutaneous scalp lesions May 2022
 - ▶ Biopsy: Signet ring cell carcinoma, breast primary
 - ▶ Brain MRI: negative for intracranial metastasis. Skull metastasis
- ▶ PET CT Scan 7/15/2022: Interval metabolic reactivation of skeletal metastatic disease

Second Relapse Treatment

- ▶ Patient is Her-2 Low (1+ on IHC)
- ▶ Recent trial showed the benefit of treatment with Trastuzumab Deruxtecan in patients with previously treated HER2-Low advanced breast cancer
- ▶ Trastuzumab deruxtecan started on August 16,2022
- ▶ Complete response to treatment
 - ▶ PET CT Scan 10/28/2022: Skeletal metastatic disease is metabolically dormant. No active cancer
 - ▶ Last visit to clinic 01/30/2023 patient found well and tolerating treatment. No evidence of active disease at the moment

Her2-Low Breast Cancer

- ▶ 80-85% of breast cancer diagnoses are HER2-negative subtype
- ▶ Of that proportion of breast cancer diagnoses, about 60% of patients previously classified as having HER2-negative subtype can now be considered as HER2-low
- ▶ Her2-Low is defined by a score of 1+ on IHC analysis or by an IHC score of 2+ and negative results on in situ hybridization
- ▶ Fam-trastuzumab deruxtecan is approved by the FDA for patients 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

Destiny-Breast04

- ▶ Randomized, multicenter, open label clinical trial that enrolled 557 adult patients with unresectable or metastatic HER2-low breast cancer.
- ▶ The trial included two cohorts: 494 hormone receptor positive (HR+) patients and 63 hormone receptor negative (HR-) patients.
- ▶ Of these patients, 373 randomly received Fam-trastuzumab deruxtecan by intravenous infusion every three weeks and 184 randomly received physician's choice of chemotherapy (eribulin, capecitabine, gemcitabine, nab paclitaxel or paclitaxel).
- ▶ The results showed improvement in both progression-free survival (9.9 months versus 5.1 months) and overall survival (23.4 months versus 16.8 months) in people with unresectable or metastatic HER2-low breast cancer receiving Fam-trastuzumab deruxtecan

Remaining Questions

- ▶ Is current Her2-low scoring accurately identifying patients that might benefit from Trastuzumab Deruxtecan?
- ▶ Are there more accurate methods?



THANK YOU!