Poor response to systemic therapy upon progression on cyclin dependent kinase 4/6 inhibitors in HR+ Inflammatory Breast Cancer

Azadeh Nasrazadani[1,2], Megumi Kai[2], Rebecca S. Tidwell[2,3], Bora Lim[1,2], Vicente Valero[1,2], Rachel M. Layman[1,2], The MDACC IBC Clinic and Research Program[2], Wendy A. Woodward[2,4]

[1] Department of Breast Medical Oncology, The University of Texas MD Anderson Cancer Center, 1515 Holcombe Blvd, Houston, TX 77030, USA. [2] Morgan Welch IBC Clinic and Research Program, The University of Texas MD Anderson Cancer Center, Houston, TX, USA.
[3] Department of Biostatistics, The University of Texas MD Anderson Cancer Center, Houston, TX, USA. [4] Department of Breast Radiation Oncology, The University of Texas MD Anderson Cancer Center, 1515 Holcombe Blvd, Houston, TX 77030, USA.

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Background

- Inflammatory breast cancer (IBC) is a poorly understood subtype of breast cancer, which exhibits an aggressive clinical course regardless of stage at diagnosis or molecular subtype.
- We have previously reported on suboptimal outcomes of patients with hormone receptor positive (HR+) IBC, and notably have reported short duration of response to standard of care CDK4/6 inhibitors (CDKI) in the 1st line metastatic setting[1].
- Herein, we report time on treatment (ToT) on systemic therapies in the 2nd line (2L) metastatic setting for patients with HR+HER2- IBC. PFS probability over time is reported in patients receiving Trastuzumab-deruxtecan (Enhertu) or Sacituzumab-govitecan (Trodelvy) in later lines of therapy.

Methods

- Patients diagnosed with **metastatic HR+HER2- IBC** for which CDKI was administered in the 1st line metastatic setting were identified from the IBC registry at MD Anderson Cancer Center (N=36). Patients unable to tolerate CDKI were excluded from this analysis (N=3).
- Therapies utilized and ToT (months) in the 2nd line setting were evaluated as reported by the treating physician.
- In a separate cohort of patients with mIBC receiving Enhertu or Trodelvy in later lines of therapy, PFS probability over time is reported.

Results

Next-line Therapy	N (%)	Median ToT (months, range)
Capecitabine	7 (21%)	3 (2–5)
Everolimus + Endocrine Therapy	6 (18%)	3 (1–4)
Abraxane	3 (9%)	3 (2–10)
Eribulin	2 (6%)	2.5 (2–3)
Capivasertib + Fulvestrant	1 (3%)	6 (6)
Taxol	1 (3%)	5 (5)
Elacestrant	1 (3%)	3 (3)
Fulvestrant	1 (3%)	3 (3)
Tamoxifen	1 (3%)	1 (1)
Intrathecal Topotecan	1 (3%)	1 (1)
Non-standard/Clinical Trial	4 (12%)	2.5 (1–4)
No Subsequent Therapy (Deceased)	5 (15%)	—

Table 1. Therapies utilized in patients with HR+HER2- mIBC in the 2L setting after progression on CDKI (N=33). N=23(70%), 6(18%), and 4(12%) received palbociclib, ribociclib, and abemaciclib respectively.

Conclusions

❑**Response to systemic therapies in patients with HR+ mIBC in 2L setting is dismal regardless of chemotherapy or endocrine directed therapy combinations.**

❑**Response to FDA approved ADCs in subsequent lines of therapy are similarly suboptimal in patients with mIBC.**

❑**Effective therapies are urgently needed for patients with mIBC.**

References: 1. Nasrazadani A et al., Retrospective Review of Metastatic Hormone Receptor-Positive Inflammatory Breast Cancer Patients Reveals Poor Responses to Cyclin Dependent Kinase 4/6 Inhibition. Breast Cancer Research 2025 (in press)

Results

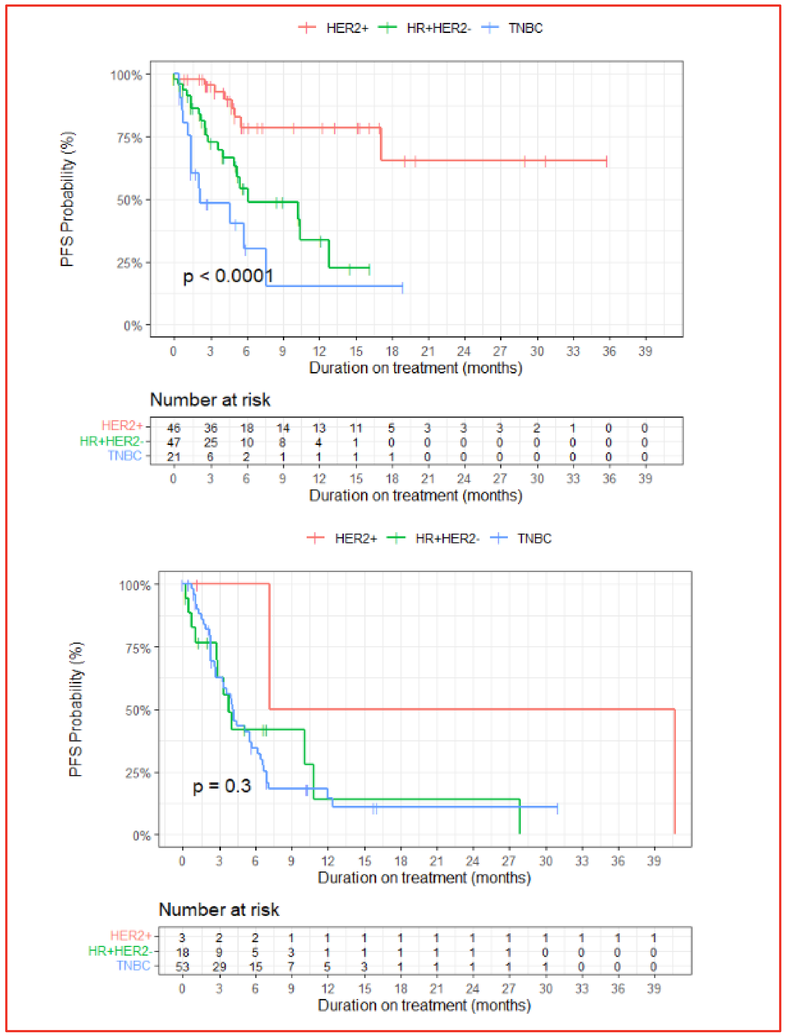


Figure 1. PFS probability over duration on treatment in patients with mIBC treated with Enhertu (top) or Trodelvy (bottom) by molecular subtype.

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Contact & COI Information: Azadeh Nasrazadani: anasrazadani1@mdanderson.org
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