Early discontinuation of adjuvant endocrine therapy in patients with HR+ HER2+ positive early-stage breast cancer after pathologic complete response (pCR) to neoadjuvant therapy: A retrospective review

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Introduction

- The current standard of care for patients (pts) with stage 2 or 3 hormone receptor positive (HR+)/ HER2 + breast cancer is neoadjuvant chemotherapy plus HER2-directed therapy (NACT-HP) followed by surgery.
- For pts who achieve a pCR, anti-HER2 therapy is continued to complete 1 year and pts are recommended to take adjuvant endocrine therapy (ET) for a minimum of 5 years.
- Adherence to ET can be challenging due to multiple adverse effects that can impair quality of life (QOL).
- Here we evaluate whether early discontinuation of ET impacts clinical outcomes in a diverse real-world population of pts who achieved pCR after NACT-HP.

Methods

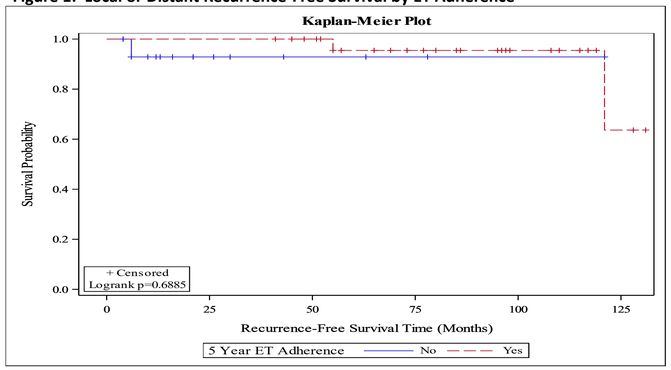
- A retrospective chart review was conducted for pts with stage 2/3 HR+/HER2+ breast cancer who were treated between 2009 -2020 and 2022-present at the Winship Cancer Institute of Emory University.
- HR+ was defined as estrogen and progesterone receptor (ER/PR) >1% and HER2 + as IHC 3+ or IHC 2+/FISH positive.
- Eligible patients received NACT-HP and achieved a pCR.
- Endpoints were adherence to endocrine therapy (ET) at 12 months and 5 years, disease-free survival (DFS), overall survival (OS), local or distant recurrence, and death.
- Descriptive statistics were employed to summarize demographic & clinical patient characteristics for the cohort (N=52). Kaplan-Meier methods were utilized to estimate local or distant recurrence-free survival, and OS. Kaplan-Meier curves were constructed to compare ET adherent, and non-adherent patient groups. Univariate associations between ET adherent patients and their respective demographic & clinic characteristics were evaluated using chi-square tests. All analyses were performed using standard two-sided significance testing within SAS version 9.4.

Results

Table 1: Patient Demographics and key baseline characteristics

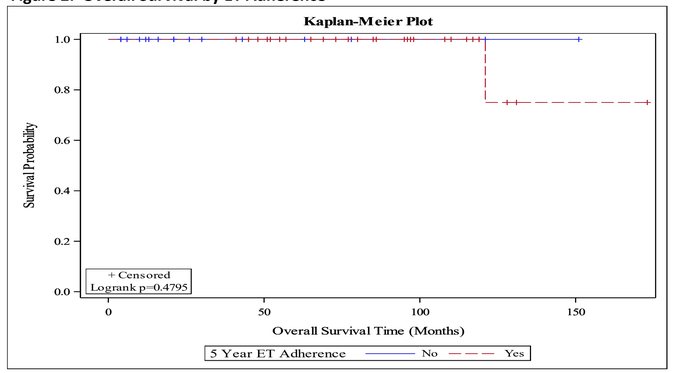
Variable	Total N = 52
Patient Race | (%)	
Asian	3 (5.77)
Black	16 (30.77)
Caucasian	30 (57.69)
Hispanic	1 (1.92)
Other	2 (3.85)
Age at Diagnosis | (%)	
< 50	24 (46.15)
>= 50	28 (53.85)
ER Percentage | (%)	
< 50%	11 (21.15)
>= 50%	41 (78.85)
Preoperative Clinical Nodal Status | (%)	
Negative	25 (48.08)
Positive	27 (51.92)
Preoperative Clinical Tumor Staging | (%)	
T1	10 (19.23)
T2	37 (71.15)
T3	3 (5.77)
T4	2 (3.85)
Type of Endocrine Therapy | (%)	
Aromatase Inhibitor & Tamoxifen	4 (8)
Aromatase Inhib. + Ovarian Suppression	5 (10)
Aromatase Inhibitor	25 (50)
Tamoxifen	16 (32)
Missing	2
12 Month ET Adherence | (%)	
No	16 (30.77)
Yes	36 (69.23)
5 Year ET Adherence | (%)	
No	24 (46.15)
Yes	28 (53.85)
Patient Survival Indicator| (%)	
Deceased	2 (3.85)
Living With Disease	4 (7.69)
Living With Recurrence	4 (7.69)
Local Recurrence	0
Distant Recurrence	5 (9.61)
Alive	42 (80.77)

Figure 1: Local or Distant Recurrence-Free Survival by ET Adherence



5 Year ET Adherence	# of Pts	Event	Censored	Median Survival (95% CI)	12 Mo Survival	60 Mo Survival	108 Mo Survival
No	16	1 (6%)	15 (94%)	NA (NA, NA)	92.9% (59.1%, 99.0%)	92.9% (59.1%, 99.0%)	92.9% (59.1%, 99.0%)
Yes	27	2 (7%)	25 (93%)	NA (121, NA)	100.0% (NA, NA)	95.5% (71.9%, 99.3%)	95.5% (71.9%, 99.3%)

Figure 2: Overall Survival by ET Adherence



5 Year ET Adherence	# of Pts	Event	Censored	Median Survival (95% CI)	12 Mo Survival	60 Mo Survival	108 Mo Survival
No	16	0 (0%)	16 (100%)	NA (NA, NA)	100.0% (NA, NA)	100.0% (NA, NA)	100.0% (NA, NA)
Yes	28	1 (4%)	27 (96%)	NA (121, NA)	100.0% (NA, NA)	100.0% (NA, NA)	100.0% (NA, NA)

Table 2: Relationship between ET adherence and type of ET

		12 Month ET Adherence		
Endocrine Therapy	Total N= 52 (100%)	No N=16 (30.77%)	Yes N=36 (69.23%)	P-value
Aromatase Inhibitor	30 (65.22)	6 (20)	24 (80)	**0.012**
Tamoxifen	16 (34.78)	9 (56.25)	7 (43.75)	
Missing	6	1	5	

Table 2: There was a statistically significant association between type of ET and 12-month adherence to drug, with more patients demonstrating adherence to AI versus tamoxifen.

Conclusions

- In this small, racially diverse, real-world cohort, early discontinuation of adjuvant ET in triple (+) BC patients who achieved pCR with NACT-HP had similar incidence of disease recurrence as those who completed at least 5 years of ET at 1, 5, and 9 years.
- Overall survival was not affected by early discontinuation of ET.
- This observation is hypothesis-generating and raises the question of whether the recommended 5-year duration of adjuvant ET is necessary in pts who achieve pCR with NACT-HP. This is particularly important for triple (+) BC patients in light of recent data from DB-11 highlighting new neoadjuvant regimens that are achieving higher rates of pCR than prior SOC.
- The LoTam trial is exploring de-escalation of adjuvant ET for certain groups of HR+ patients; trials looking at de-escalation of adjuvant ET for HR+HER2+ patients with pCR to NACT-HP may also be warranted in the future.

Contact

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