STUDY REPORT SYNOPSIS

ALEXANDRIA /D133FR00138

A Prospective Non-InterventionaL Study To EXplore the Real-Life MAnagement Of Postmenopausal womeN With Hormone Receptor- Positive, Human EpiDermal Growth Factor Receptor 2-Negative Locally Advanced/ MetastatIc BreAst Cancer In Egypt

Milestones:	Statistical analysis is available, study was completed
Phase of development:	Phase IV
Sponsor:	AstraZeneca
Author:	[redacted]

This study was performed in compliance with Good Clinical Practice (GCP) and Good Pharmacoepidemiology Practice (GPP), including the archiving of essential documents.

Background/rationale: Selective Estrogen Receptor Down-regulators (SERDs) and aromatase inhibitors (AIs) are the backbone of treating hormone positive, HER2-negative breast cancer, either alone or in combination with adjuvant therapy. Data on the management and outcomes of patients with locally advanced or metastatistic estrogen-positive, HER2-negative, breast cancer is scarce and controversial.

Objectivs: The aim of this study was to describe the use of chemotherapy and endocrone treatment (ET) regimens as first-line treatment of women with hormone receptor-positive HER2-negative metastatic breast cancer, outside the setting of clinical trials, in a real world scenario.

Study design: Observational descriptive cohort study

Data source: Patient records and routine follow up visits

Study population: 392 postmenopausal women with locally advanced or metastatistic estrogen-positive, HER2-negative, breast cancer

Inclusion criteria: For inclusion in the study, all participants fulfilled the following criteria:

- *Provision of written informed consent prior to any study specific procedures*
- *Post-menopausal women (Defined as a woman who have experienced at least 12 consecutive months without menstruation, who had undergone bilateral ovariectomy or who has menopausal levels of serum Estradiol and FSH.)*
- *Hormone receptor positive, HER2 negative locally advanced or metastatic breast cancer.*
- *Patients with either de novo metastatic disease who had not received any prior treatment or those who progressed during or after previous adjuvant endocrine treatment for early breast cancer.*
- *Hormone sensitive patients (per the ABC2 guidelines published in Annals of Oncology 00: 1–18, 2014, defined as relapse while on adjuvant ET but after the first 2 years, or a relapse after/within 12 months of completing adjuvant ET. Patients with ER+ de novo metastatic disease were also considered hormone sensitive patients).*
- *Patients have already been prescribed treatment with ET either as monotherapy or in combination or physician's choice of a standard of care chemotherapy within the previous 90 days prior to their enrolment.*

Exclusion criteria:

Subjects were excluded if any of the following exclusion criteria were fulfilled:

- *Involvement in the planning and/or conduct of the study (applies to both AstraZeneca staff and/or staff at the study site)*
- *Previous inclusion in the present study*
- *Current enrollment and/or participation in another clinical study during the last 90 days.*
- *Presence of visceral crisis.*
- *Failure to meet any of the inclusion criteria.*

Statistical methods: Study variables were summarized as frequencies and percentages for categorical variables or mean (and standard deviations) for continuous variables. The two subgroups of patients with SERD and AI were compared in terms of patient charachterestics, history, response, and survival status. The Kaplan-Meier survival analysis was done to calculate the overall survival and progression

free survival for the study population as well as the SERD and AI subgroups. The comparison between AI and SERD subgroups in terms of OS and PFS was done by the log-rank test. All analyses were done by Jamovi version 2.0 and SPSS version 27 for macOS.

Results: Overall, 392 patients were included in the study. The average duration of therapy for patients enrolled in the study was 47 months. The majority of patients had invasive ductal carcinoma.

Half of the study participants underwent surgery before enrolling in the study and 35% of them had received chemotherapy before enrolling in the study. For those who reported receiving chemotherapy, their chemotherapy type was adjuvant in 66 patients (78.6%), neoadjuvant in 17 patients (20.2%) and both neoadjuvant and adjuvant in one patient (1.2%). The majority of patients (66.1%) were on AIs (whether steroidal or non-steroidal). Other hormonal therapies were also used by the study participants as follows: CDK4-6 inhibitor in 69 patients (17.6%), chemotherapy in 69 patients (17.6%), SERD in 60 patients (15.3%), SERM in 8 patients (2%), mTOR inhibitor in 9 patients (2.3%), and LHRH agonists in 6 patients (1.5%).

At the final evaluation, the response to treatment in the population were as follows: complete response in 26 patients (6.8%), partial response in 59 patients (15.4%), progression in 158 patients (41.1%), and stable disease in 141 patients (36.7%). Disease progression occurred in 175 patients (44.6%) while death occurred in 30 patients (7.8%). The mean time till disease progression was 10.2 months while the mean time to death or end of the study follow up was 10.3 months. The median PFS was 13.8 months. In terms of PFS, more progression events occurred in the AI group compared to the SERD group but this difference was not statistically significant. The median PFS in the AI and SERD groups was 14 and 14.8 months, respectively.

The median OS was not estimable using the Kaplan-meier curve owing to the small number of death events. The OS for all patients was 84% at 6 months, 74% at 12 months, and 65% at 18 months. Among the 30 deaths, 16 were due to cancer progression and 14 were attributed to other causes. More death events occurred in the AI group compared to the SERD group but this difference was not statistically significant. The median OS in the AI and SERD groups were not estimable by the Kaplan-meier methods owing to the limited number of events in both subgroups.

Conclusion: [redacted]

Publications: None

[redacted]