Introduction

- EBSC (stage 1-4A) accounts for the majority of cases of breast cancer in the US, with 6% being metastatic at diagnosis.
- Approximately 5% of patients with breast cancer have a germline BRCA1 and/or BRCA2 mutation, while BRCA breast cancer is almost always HER2-.
- Treatment options for EBSC include surgery with or without radiation therapy and systemic therapy (ET) for patients with HR-positive (HR+) EBSC in chemotherapy, in both the neoadjuvant and adjuvant settings.
- Limited data exist on real-world clinical characteristics and treatment patterns for patients with EBSC and BRCA.

Methods

- Retrospective, observational study in patients with HER2- EBSC identified in the CancerLinQ® database (Figure 1).
- Summary characteristics by clinical stage and treatment patterns in patients with HER2- EBSC (HR+, TNBC, and BRCAm) (Figure 2).
- BRCA testing in ESBC remains low (BRCAunk: HR+, 88.3%; TNBC, 78.0%) highlighting the need for further targeted testing in this population according to testing guidelines.
- Overall, 61% patients with HR+ EBSC were identified (Table 1).
- Patterns in BRCAunk patients were similar to those of patients with BRCAwt and BRCAm.

Results

- Overall, 61% patients with HR+ EBSC were identified (Table 1). Fewer patients received platin (carboplatin or cisplatin) in both the BRCAunk and BRCAwt groups, whereas patients from the TNBC cohort showed low variation across BRCA status (Table 1).
- Proporitionally fewer patients with a BRCAm received radiation at any time.
- Further details of baseline and clinical characteristics are available in Supplementary Table 3 (available via QR code).

Overall treatment patterns

- Surgery followed by adjuvant treatment was the most common treatment modality requiring the in HR+, TNBC, and TNBC-cohort (Table 2). In studies with a BRCAunk and TNBC, 40.2%; Table 2).
- Patients with a TNBC and TNBC+ were more commonly treated with neoadjuvant treatment and surgery in the TNBC cohort (51.5%), while with neoadjuvant treatment followed surgery and adjuvant treatment in the TNBC cohort (11.5%, Figure 3, as compared with patients from the other BRCA status group; whereas patients from the TNBC cohort showed low variation across BRCA status (Table 1).
- Patients with TNBC were more frequently treated with neoadjuvant chemotherapy (56.9%) and TNBC cohorts (50.0%).
- Doxorubicin, cyclophosphamide, and paclitaxel or docetaxel (AC-T) was the most common neoadjuvant treatment received in both the HR+ (66.7%) and TNBC cohorts (53.0%).
- In both cohorts, neoadjuvant AC-T was highest among patients with BRCAm (66.7%, 69.7%; TNBC, 71.4%; Figure 4).

Conclusions

- To investigate the demographics, clinical characteristics, and treatment patterns of patients with human epidermal growth factor receptor 2 HER2-neo(HER2)- early stage breast cancer (ESBC) in a real-world setting, according to BRCA1 and/or BRCA2 (BRCA) mutational status.
- BRCA testing in ESBC remains low (BRCAunk: HR+, 88.3%; TNBC, 78.0%) highlighting the need for further targeted testing in this population according to testing guidelines.
- Overall, 61% patients with HR+ EBSC were identified (Table 1). Fewer patients received platin (carboplatin or cisplatin) in both the BRCAunk and BRCAwt groups, whereas patients from the TNBC cohort showed low variation across BRCA status (Table 1).
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Acknowledgments and disclosures

This study is funded by AstraZeneca.
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Limitations

• The study is based on secondary use of electronic medical records data, collected for clinical practice and not research purposes.
• The information available was measured on patients, reflecting the nature of real-world data, it does not represent all of this study’s major limitations.
• This study reflects treatment practice patterns primarily within community oncology practices in the US that are part of CancerLinQ®.
• Patients demographics within the CancerLinQ® database may differ from the general population with breast cancer.