**PROGNOSTIC RELEVANCE OF PRIOR ENDOCRINE TREATMENTS IN OVERALL SURVIVAL (OS) AT THE TIME OF FIRST LINE CHEMOTHERAPY IN ER[+]/HER2[-] ADVANCED BREAST CANCER (ABC) PATIENTS**

Authors: A. Llombart-Cussac, S., Sampayo, M., Gilgoro, J. de la Haba Rodriguez J, Cortes J J.

**BACKGROUND**

- International consensus stresses a preference for endocrine therapies over chemotherapy in patients with ER [+] cancer when feasible.
- However, real-world clinical practice, chemotherapy (CT) administration and patient preference can inhibit such recommendations.
- Retreatment with endocrine therapy (ET) may be considered in specific situations.
- There is little knowledge on the prognostic impact of ET therapies that drive OS in the ABC-2 population at the time of first-line CT for ABC, and particularly on the influence of endocrine therapy on post-progression.
- The updated EMG - ASCO guidelines for advanced breast cancer focused on metabolic criteria to establish endocrine sensitivity/ resistance potentials.
- In the multivariate analysis (MVA) study, 2,244 patients with HER2-negative breast cancer were treated with first-line bevacizumab in combination with non-anthracycline-containing chemotherapy in the context of routine oncology practice.
- The ESS classification used to be in dataset in which to assess potential prognostic factors.

**METHODS**

- The Athena trial assessed safety of different first-line CT & bavacizumab regimens in 2,244 patients (pts) treated between 2006 and 2009 over 14 countries.
- We adopted the ESS-2013 (ABC guidelines) of endocrine resistance to the data collected, considering 5 years to be the median duration of (neo)adjuvant ET. Endocrine Sensitive Status (ESS) at the time of inclusion was characterized.

**RESULTS**

- Bevacizumab was typically administered in combination with ET in the early stage setting.
- Median OS since study initiation for HES, MES, LES and TnBC were respectively 43.2 months (95% CI: 36.7-48.5), 34.0 months (95% CI: 30.9-38.6), 36.1 months (95% CI: 31.6-44.1), and 20.2 months (95% CI: 17.8-21.6). A significant difference between groups was observed.
- At the end of the study, the median OS for the LES subgroup was very significantly different from the moderate (MES) or the low endocrine sensitive (LES) subgroups.
- The OS for the LES subgroup was significantly different from the moderate (MES) or the low endocrine sensitive (LES) subgroups.
- In the MVA, OS was significantly lower for patients with both EEP and AEP criteria compared to patients with either EEP or AEP criteria. Patients with both EEP and AEP criteria had a significantly lower OS compared to patients with either EEP or AEP criteria. Patients with both EEP and AEP criteria had a significantly lower OS compared to patients with either EEP or AEP criteria. Patients with both EEP and AEP criteria had a significantly lower OS compared to patients with either EEP or AEP criteria. Patients with both EEP and AEP criteria had a significantly lower OS compared to patients with either EEP or AEP criteria.

**CONCLUSIONS**

- One third of ER [+]/HER2[-] ABC included in the ATHENA trial that had been precluded from HER2 directed therapy (GEP) were included in the endocrine resistance criteria.
- Retreatment with endocrine therapy for advanced breast cancer (ABC) may be considered in specific situations.
- The ESS classification used to be in dataset in which to assess potential prognostic factors.
- As for the need for a new survival marker, future large phase II trials extending the duration of endocrine therapy in the ABC-2 population should appropriately stratify or select patients based on the Endocrine Sensitivity Status.

**REFERENCES**


**ACNOWLEDGMENTS**

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**Table 1. Baseline characteristics and median OS according to ESS and EEP criteria.

<table>
<thead>
<tr>
<th>ESS Status</th>
<th>n</th>
<th>Median OS (months)</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HES</td>
<td>117</td>
<td>43.2 (36.7 to 48.5)</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>MES</td>
<td>612</td>
<td>34.0 (30.9 to 38.6)</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>LES</td>
<td>245</td>
<td>36.1 (31.6 to 44.1)</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>TnBC</td>
<td>35</td>
<td>20.2 (17.8 to 21.6)</td>
<td>0.0</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2. Summary of endocrine-sensitive subgroups.

<table>
<thead>
<tr>
<th>ESS Status</th>
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</tbody>
</table>

**Table 3. Multivariate analysis of OS according to presence of risk factors (ESS, HER2, ABC population, n=1492).**

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Odds Ratio</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEP</td>
<td>2.3 (1.8 to 2.8)</td>
<td>p&lt;0.001</td>
<td></td>
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<tr>
<td>AEP</td>
<td>1.6 (1.4 to 1.9)</td>
<td>p=0.012</td>
<td></td>
</tr>
<tr>
<td>EEP + AEP</td>
<td>4.2 (3.3 to 5.4)</td>
<td>p&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>EEP + AEP + both</td>
<td>5.1 (4.3 to 6.0)</td>
<td>p&lt;0.001</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 1. Summary of endocrine-sensitive subgroups.**

- This is a title and sub-figure of a figure. The figure may vary depending on the specific content of the paper.

**Figure 2. Overall survival according to prior ET for ABC (AEP), independent of the duration or number of endocrine lines.**

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**Figure 3. Overall survival according to prior ET for ABC (AEP), independent of the duration or number of endocrine lines.**

- This is a title and sub-figure of a figure. The figure may vary depending on the specific content of the paper.

**Figure 4. Overall survival according to prior ET for ABC (AEP), independent of the duration or number of endocrine lines.**

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