Trends and variations of endocrine treatment in ‘in situ’ breast cancer in Europe

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Background

The management of in situ breast cancer with adjuvant endocrine treatment remains controversial.

The study aims to investigate the real-world use of adjuvant endocrine treatment in breast cancer in European (EU) countries.

Methods

The European Society of Breast Cancer Specialists (EUSOMA) database contains anonymous and cumulative data collected by European breast centers that, in the relevant period, were part of the EUSOMA Network.

The data used for this study were registered by 58 breast centers, all of which entered at least 500 new diagnoses in the database in the ten-year period. Geographically, the contributing centers are located in Northern (Belgium, the Netherlands, Sweden), Central (Austria, France, Germany, Switzerland) and Southern (Italy, Portugal) Europe.

All female patients with a new breast cancer diagnosed in the period 2010 to 2019 were identified in the EUSOMA database.

The use of adjuvant endocrine treatment was studied in operated endocrine sensitive breast cancer, by tumor behavior. Trends were evaluated by age group (<50y, 50-69y, ≥70y) and EU geographical region (North, Central, South).

Practice Indicators; EUSOMA [2010-2019]

<table>
<thead>
<tr>
<th></th>
<th>Total N</th>
<th>n</th>
<th>n/N (%)</th>
<th>Association Age Group* (p-value)</th>
<th>Association EU Region (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjuvant endocrine treatment for endocrine sensitive INVASIVE breast cancer</td>
<td>72749</td>
<td>68590</td>
<td>94.3%</td>
<td>p &lt; 0.0001</td>
<td>p &lt; 0.0001</td>
</tr>
<tr>
<td>Adjuvant endocrine treatment for endocrine sensitive IN SITU breast cancer</td>
<td>5086</td>
<td>2343</td>
<td>46.1%</td>
<td>p &lt; 0.0001</td>
<td>p &lt; 0.0001</td>
</tr>
</tbody>
</table>

*For the association with age, only patients with known age were included in the analysis.

Conclusions

The study of the real-world use of adjuvant endocrine treatment revealed a remarkably high percentage in in situ breast cancer.

Geographical study between European centers and regions demonstrated different practices, with higher proportions in Southern compared to both Northern and Central European breast centers.

In patients older than 70 less adjuvant endocrine treatment was used compared with the younger patients, however the differences are minor.

Practice indicators making use of real-world European data can help to monitor, evaluate, and eventually guide and align good clinical practice in the management of breast cancer.

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