INTRODUCTION

- Breast cancer remains a leading cause of cancer death, despite continued advances in therapy.
- Timely treatment is imperative for increasing survival and reducing risk of recurrence.
- Delayed treatment is associated with poor outcomes, irrespective of stage or pathologic subtype.

OBJECTIVE

- To describe the impact of treatment timing on outcomes of patients with localized breast cancer.

METHODS

- Stage I-III breast cancer patients diagnosed between 2004 and 2014 were identified through the NCDB.
- Those with multiple primary malignancies or incomplete data in study variables of interest were excluded.

RESULTS

- Demographic, geographic and clinical variables were analyzed.
- Analysis grouped patients according to treatment time: ≤30 days, 31-60 days, 61-90 days, >90 days.
- Treatment delay was defined as >90 days post-diagnosis.
- Multivariate analysis revealed covariates associated with delayed treatment and overall survival (OS).
- Descriptive statistics, multivariate analysis, survival analysis and p values were computed in SAS.

Table 1. Demographic characteristics of study population by time to treatment.

<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>≤30 d</th>
<th>31-90 d</th>
<th>&gt;90 d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>64.9%</td>
<td>76.2%</td>
<td>65.4%</td>
<td>65.1%</td>
</tr>
<tr>
<td>Female</td>
<td>35.1%</td>
<td>23.8%</td>
<td>34.6%</td>
<td>34.9%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤40 years</td>
<td>44.8%</td>
<td>48.4%</td>
<td>45.2%</td>
<td>44.7%</td>
</tr>
<tr>
<td>&gt;40 years</td>
<td>55.2%</td>
<td>51.6%</td>
<td>54.8%</td>
<td>55.3%</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>62.9%</td>
<td>35.5%</td>
<td>70.5%</td>
<td>52.9%</td>
</tr>
<tr>
<td>Black</td>
<td>37.1%</td>
<td>64.5%</td>
<td>29.5%</td>
<td>47.1%</td>
</tr>
<tr>
<td>Other</td>
<td>40.5%</td>
<td>37.1%</td>
<td>13.0%</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

- Treatment delay was associated with significantly worse OS (p<0.001).
- Adjusting for covariates, treatment >90d post-diagnosis was associated with decreased survival (p<0.0001).

CONCLUSIONS

- This study identified factors associated with treatment delay—many historic risk factors to disparate care.
- Although delayed treatment composed a small subset of the data, those treated >90 days post-diagnosis had poorer OS.
- Despite this limitation, delays in treatment increased overall over the last ten years.
- Notably, academic institutions were associated with treatment delays; yet, OS improved compared to other facilities. Thus, delays in treatment may not fully explain outcomes and may be intervenable.
- Further analysis is needed to examine the clinical impact of these findings and to improve practice patterns to minimize delays in treatment.

GRANT SUPPORT

- Thank you to NCI grant R25-CA134283 for support of this project.