Introduction

• The management of Stage IV breast cancer varies widely amongst different centers and regions of the country. African American women with breast cancer have been shown to have a 41% higher death rate than Caucasian women with the same disease.* This has been noted to be a particular issue in the Atlanta metropolitan region, where the differential between survival in African American and white women is the largest in the nation.
• The reasons for this are largely unknown, but more aggressive tumor biology, lack of access to care, socioeconomic factors and delayed diagnosis have been assumed to play a role.*
• Our goal was to evaluate all de novo Stage IV breast cancer patients over different treatment facilities in order to identify any disparities in treatment approach and survival outcome.

*References available upon request.

Methods

• We performed a retrospective examination of all patients presenting with de novo Stage IV breast cancer over a 12-year period within our healthcare system.
• This system is made up of three geographically separate hospitals in a large metropolitan area.
• Demographics and treatment information were compared between three hospital settings: academic – private; academic – public; private.
• Univariate and multivariable statistical analyses, as well as Kaplan Meier survival analysis were undertaken in an attempt to identify any disparities in care and survival.

Univariate Analysis Based on Facility

<table>
<thead>
<tr>
<th>Covariate</th>
<th>Race</th>
<th>N</th>
<th>Hazard Ratio (95% CI)</th>
<th>HR P-value</th>
<th>Unadjusted P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Black</td>
<td>130</td>
<td>1.00 (0.82-1.21)</td>
<td>1.00</td>
<td>0.991</td>
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<tr>
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<td>White</td>
<td>227</td>
<td>1.00 (0.82-1.21)</td>
<td>1.00</td>
<td>0.991</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>181</td>
<td>1.01 (0.84-1.21)</td>
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<td>0.991</td>
</tr>
</tbody>
</table>

Results / Discussion

• Patients at the academic-public hospital were less likely to undergo chemotherapy, hormone therapy, or surgical intervention.
• Lower overall survival was associated with treatment at the academic-public hospital and African American heritage; improved survival was associated with the receipt of chemotherapy, hormone therapy or surgery.
• Multivariable analysis noted an association between lower survival and treatment at the academic-public hospital, African American heritage, and supportive care in patients with Stage IV breast cancer.

Conclusion

• There are clear disparities noted in the care and survival of patients presenting with Stage IV breast cancer based on treatment location and ethnicity.
• Despite sharing many resources, including surgeons, medical oncologists and radiation oncologists, the patients at the academic-public hospital received treatments (chemo/hormone/surgery) less often than patients at other hospitals.
• Survival was also noted to be lower in the academic-public hospital. Additional examination of the cause of these disparities is warranted and underway.