Racial Disparities Among DCIS Patients
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Background
- Racial disparities among patients with invasive breast cancer are well described in regards to screening, stage at diagnosis, and survival, however, few studies examine disparities among patients with ductal carcinoma-in-situ (DCIS).
- DCIS identifies patients who have an increased risk for developing invasive breast cancer, and racial/ethnic disparities among DCIS patients could impact the disparities observed in patients with invasive cancer.
- Nationally, the prevalence of screening mammography is similar among white and African American women but lower for Hispanic women.

Objective
To examine patients with DCIS at Wake Forest Baptist Health in order to detect differences between racial/ethnic groups that could affect breast cancer outcomes.

Methods
- Retrospective analysis of patients diagnosed with DCIS at Wake Forest Baptist Health from 2008-2015.
- Clinicopathologic features were evaluated among white, African American, Hispanic, Asian, and American Indian patients to detect differences in presentation, receipt of anti-estrogen therapy, adherence to anti-estrogen therapy, and development of breast cancer within the follow-up period.
- Clinical features included age and indication for diagnostic biopsy.
- Pathologic features included estrogen receptor (ER) status and presence of invasive carcinoma on final surgical histology.

Results
Cohort of 207 women diagnosed with DCIS from 2008-2015

- After mastectomy or breast-conserving surgery, 13 patients (6.3%) had a focus of invasive ductal carcinoma (IDC) on final histology.
- 22 patients (10.6%) presented symptomatically. African American and Hispanic women were more likely than white women to present with a palpable breast mass (p=0.004). On final histology, 3 of these 22 had an invasive focus.

<table>
<thead>
<tr>
<th>Age at diagnosis</th>
<th>White (n=161)</th>
<th>African American (n=39)</th>
<th>Hispanic (n=5)</th>
<th>Asian (n=1)</th>
<th>American Indian (n=1)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>mean (SD)</td>
<td>59.0 (11.2)</td>
<td>58.9 (11.3)</td>
<td>50.8 (12.7)</td>
<td>39.0</td>
<td>62.0</td>
<td>0.228</td>
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</tbody>
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- There was no difference in patients who took anti-estrogen therapy by race/ethnicity (p=0.875), however, Hispanic women were more likely to stop anti-estrogen therapy early (p=0.027).
- 7 patients (4.3%) developed breast cancer during the follow-up period (2 ipsilateral DCIS, 4 ipsilateral IDC, 1 contralateral IDC). There was no difference in development of future breast cancer by race/ethnicity (p=0.982).

Conclusions
Racial/ethnic disparities exist among patients with DCIS. At our institution, minority women are more likely than white women to present with symptomatic lesions. Hispanic women are more likely to be non-adherent to a five-year treatment course of anti-estrogen therapy. Knowledge of disparities among DCIS patients could impact both management of DCIS patients and screening of high-risk racial and ethnic groups. Special attention should be placed on minimizing barriers to screening mammography for minority women and educating patients on all components of their treatment plan.

References