Title: Recurrence Rates of Triple Negative Early Stage Breast Cancer in a Predominantly African American Population.

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Introduction:
Triple negative tumors are associated with higher recurrence rates and decrease overall survival when compared to other breast cancer subtypes. In the African American population, women are more frequently affected by triple negative breast cancer than women of other races, contributing to their worse outcomes. This population is traditionally underrepresented in prevalence studies and clinical trials. This chart review will evaluate recurrence rates of triple negative breast cancer among African Americans at a single institution.

Methods:
A retrospective chart review was conducted on 434 consecutive patients who were diagnosed with early stage breast cancer between January 2007 and December 2011. We examined the recurrence rates of triple negative breast cancer in African Americans, and compare it to other ethnicities and to previously published rates. We also examined the recurrence rates of all breast cancers treated at our institution.

Results:
There were 434 patients that were diagnosed with Stage I or II invasive breast cancer between 2007 and 2011. Of those, there were 24 recurrences that were detected and whom follow-up data was available. Nine out of 24 patients had triple negative breast cancer. Patient and tumor characteristics were as follows: median age at diagnosis: 50 years (range 27-88 years); 95.8% of the women were African-American; 62.5% were post-menopausal at the time of diagnosis; 87% were invasive ductal carcinoma, 4% were invasive lobular carcinoma. The TNBC patients who had a recurrence were more likely to have distant metastases than the non-TNBC group with a recurrence. The TNBC group had a statistically significant CNS and lung metastases compared to the non-TNBC group (p= 0.0474 and 0.0562 respectively). Median time to recurrence for both groups was two years, with a median follow up time of 3 years.

Conclusions
Data from this review of 434 women diagnosed with stage I and II invasive breast cancer over a 5 year period showed an overall recurrence rate of 5.5%. These data show that women who had TNBC and had disease recurrence were more likely to have CNS and lung metastases compared to those who did not have TNBC.