

Racial Differences in Severity of Breast Cancer Presentation Confirmed

Atlanta 2007/07/09 -African-American women are diagnosed with more advanced breast cancer than Caucasians, according to a new, single hospital study. Published in the August 15, 2007 issue of *CANCER*, a peer-reviewed journal of the American Cancer Society, the study analyzed demographic and breast cancer data from a single institution's registry, and confirmed that African-Americans are more likely to present with later stage and higher grade tumors compared to Caucasians. In addition, tumors from African-Americans contain more poor prognostic molecular characteristics than Caucasians. This preliminary study, according to the authors, "also illustrates that data available in our registry reflects national trends in demographics, and that further studies from our registry may be utilized as consistent parallel indicators."

Racial differences in breast cancer incidence and prognosis have been reported in many regional and national studies. While Caucasians have the highest incidence of breast cancer, mortality among that group is among the lowest. African-Americans, conversely, have one of the lowest incidence rates, but the highest mortality rate among women with breast cancer. One of the most prominent clinical features is the highly aggressive invasive disease in African-Americans. Whether due to healthcare access, intrinsic tumor genetics, or other factors, outcome disparities continue to be investigated and characterized to develop possible interventions to improve outcomes among African-American women.

Dr. Gloria Morris and colleagues from the Thomas Jefferson University Hospital (TJUH) in Philadelphia compared demographic, clinical and molecular breast cancer data from a large female population (2,230 women) in Philadelphia who were diagnosed at TJUH to national data (197,274 women) collected and reported by the National Cancer Institute (NCI).

Dr. Morris and her coauthors reported similar racial differences in this single institutional database to the national database. In both the TJUH and the NCI databases, advanced disease and poorer prognostic findings were more often diagnosed in African-American women. In addition, molecular findings from African-American and Caucasian tumors from all stages identified more estrogen-receptor negative pathology (48 percent versus 37 percent), higher rates of expression of poor prognostic genes, ki-67 (42 percent versus 29 percent) and p53 (19 percent versus 13 percent). Further examination also showed more common prevalence of the more aggressive basal or "triple negative" (negative for estrogen and progesterone receptors as well as HER2 expression) type of tumor in African-Americans compared to Caucasians (21 percent versus 10 percent).

The authors conclude that this "data will be utilized to heighten awareness and to further institute aggressive and specific treatment regimens for different breast cancer phenotypes."

Article: "Differences in Breast Carcinoma Characteristics in Newly Diagnosed African-American and Caucasian Patients: A Single-Institution Compilation Compared With the National Cancer Institute's Surveillance, Epidemiology, and End Results Database," Gloria J. Morris, Sashi Naidu, Allan K. Topham, Fran Guiles, Yihuan Xu, Peter McCue, Gordon F. Schwartz, Pauline K. Park, Anne L. Rosenberg, Kristin Brill, Edith P. Mitchell, *CANCER*; Published Online: July 9, 2007 (DOI: 10.1002/cncr. 22836); Print Issue Date: August 15, 2007.

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