

Survival differences by race most apparent in advanced stages of breast cancer

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Racial differences in breast cancer survival increase according to stage of disease, a new study finds. Published in the September 15, 2007 issue of *CANCER*, a peer-reviewed journal of the American Cancer Society, a retrospective analysis of survival data demonstrates that within each stage, African American women had larger tumors and were more likely to have disease that had spread to nearby lymph nodes.

After controlling for those clinical factors the racial disparities in survival persisted. The investigators say their finding that disparities in survival increased with more advanced disease was surprising and suggested that non-clinical factors contributed to survival differences.

Epidemiology studies have long showed significant racial/ethnic differences in breast cancer survival among U.S. women. African American women have poorer five-year survival rates, and more advanced disease at the time of diagnosis than white women. Whether these disparities are due to a difference between races in tumor biology or to socioeconomic factors that impact healthcare access and/or the physician-patient relationship continues to be unclear.

One key piece of evidence is that, stage for stage, African American women have worse clinical outcomes than white women. However, staging disease is complex, taking into account tumor size and regional or distant disease spread. Also, there can be significant differences in survival within each stage. For example, survival at the same stage can vary by 40 percent depending on the number of lymph nodes with

disease.

Dr. Alfred Neugut from Columbia University Medical Center, Russell McBride from Mailman School of Public Health and their colleagues hypothesized that racial differences in survival within stage could be attributed to differences in tumor size and the number of lymph nodes with disease between the two race groups.

Analysis of clinical and demographic characteristics from 256,174 women with breast cancer (21,861 African American and 234,313 white) diagnosed from 1988-2003 showed that African American women were more likely than white women to be diagnosed with tumors greater than 2.0-cm and to have at least one lymph node with disease. However, racial differences in lymph node involvement were apparent only in tumors smaller than 3.0 cm.

After adjusting for tumor size and lymph node status as well as other known factors, such as age, African American women were still more likely to die from their disease. The mortality rate among African American women was calculated to be up to 56 percent higher than whites.

This study confirms “statistically significant differences within stage between black and white women in tumor size and nodal involvement.” However, the authors conclude, “these differences are not clinically important with respect to survival over and above the standard AJCC stage categories.”

The study also found that as stage of disease at diagnosis increases, so too does the gap in mortality between African American and white women. The authors postulate that “the factors that prevent black women from receiving the same quality of care as white women may be exacerbated by the more complex treatment regimens used for more

advanced breast cancer.”

Source: John Wiley & Sons

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