CORRESPONDENCE

Re: Ethnicity and Breast Cancer: Factors Influencing Differences in Incidence and Outcome

I read with interest the article by Chelebowski et al. (1) regarding race/ethnicity and breast cancer characteristics and mortality among participants in the Women’s Health Initiative (WHI) study. The authors concluded that the higher breast cancer mortality in black women than in white women may be due to black women’s cancers being more likely than those of white women to be estrogen receptor negative, progesterone receptor negative, and poorly differentiated—all characteristics that are associated with poorer prognosis (2).

Although racial/ethnic differences in breast cancer mortality may be partially attributable to differences in tumor characteristics, the authors did not give adequate attention to two well-known sources of disparities in mortality: differences in access to health care services and differences in the quality of care that is delivered once access is attained (3). That is, the authors assume that, because most women in the WHI were insured, they had equivalent access to diagnostic and treatment services for breast cancer. However, this was not necessarily the case: even though most women enrolled in the WHI were insured, there was evidence in the report of differential delivery of services to black women, who received, on average, fewer mammograms than white women (even though they were part of the clinical trial). In addition, the study did not examine differences in treatment.

There is also evidence of differential delivery of adjuvant radiation therapy and chemotherapy after surgery for black women as compared with white women (4). Black women are less likely to receive radiation therapy after breast-conserving surgery and more likely to receive reductions in chemotherapy dose before beginning chemotherapy as well as during treatment, which affects outcome. Examination of the impact of receipt of less than definitive stage-appropriate treatment for breast cancer indicated that women who do not receive appropriate therapy have higher recurrence rates and poorer survival (5). Population-based studies using Surveillance, Epidemiology and End Results data to examine the contribution of incidence and survival to observed mortality differences in breast cancer have implicated less-than-optimal breast cancer care as the culprit (6).

I believe that the conclusions of the Chelebowski et al. study must be tempered in light of a lack of information presented in the paper on access to treatment and quality of the care received. Because there is no reason to believe that breast cancers in black women respond differently to cancer therapy than those in white women, treatment must be accounted for in any analysis that seeks to explain mortality differences between black and white women. If the tumors in black women have more aggressive biologic characteristics than those in white women, perhaps more aggressive treatment is needed. At a minimum, we need to consider the quality of the health care delivered when examining disparities in cancer outcomes (7).

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REFERENCES


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RESPONSE

In her correspondence, Dr. Richardson questions our conclusion that the more common development of poor prognosis cancers in African American women is a major factor in the increased breast cancer mortality seen (1). She suggests that we did not fully consider potential differences in health care access in our analysis and presents a thesis largely dependent on her statement that “there is no reason to believe that breast cancers in black women respond differently to cancer therapy than those in white women.”

Although racial/ethnic differences in access and quality of health care undoubtedly exist, such differences were minimized in our Women’s Health Initiative (WHI) population, which consisted of volunteers who came forward to participate in studies that would be unlikely to provide them with direct benefits. As a result, educational level was fairly comparable across the racial/ethnic groups in our study, with 78% of white and 73% of African American participants reporting at least some school after high school. Moreover, 96% of white and 94% of African American participants had ever had a mammogram before entry. The studies cited by Dr. Richardson contain greater discrepancies in socioeconomic characteristics across racial/ethnic groups than are seen in the WHI population.

In our original article, we identified three studies in which African American and white women were provided with similar breast cancer therapies and access but clinical outcome among African American women was poorer. Lower survival among African American women with breast cancer, as compared with white women, has been reported among women treated in the U.S. Department of Defense Healthcare System (2), in...
managed care populations (3), and in a multicenter clinical trial group setting in which identical adjuvant chemotherapy was administered (4). Such observations support the hypothesis that breast cancer outcome is worse in African American women even when access to and quality of healthcare are similar. Our finding that African American women were at a nearly fivefold increased risk of developing breast cancers with poor prognostic features provides a reasonable explanation for their less favorable outcome.

We agree with Dr. Richardson that efforts to improve access to and quality of health care in all underserved populations are a priority and must continue. However, attention should also be directed at biologic factors that may influence breast cancer outcome.

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