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IN THE LITERATURE

Disparities in Cancer Survival between Blacks and Whites

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Blacks in the US have poorer 5-year survival rates after diagnosis of cancer than do whites. Some large epidemiological studies have concluded that disease stage at diagnosis, socio-economic status, and level of health insurance do not account entirely for the disparity. Such findings have led some to advance the theory that cancer biology is different in blacks and whites.

Peter Bach and co-authors from the Memorial Sloan-Kettering Cancer Center conducted a meta-analysis of cancer survival studies in which they controlled for 2 different factors—quality of treatment and mortality due to other illnesses.[1] They reasoned that any remaining gap in survival rates between groups of individuals who had received the same treatment and all of whom died from the cancer itself might be attributable to differences in cancer biology.

Bach et al reviewed all English-language articles published from 1966 to January 2002 that described outcomes for black and white cancer patients. They identified 89 cohorts in 54 individual articles representing 189,877 white and 32,004 black cancer patients with 14 different cancers. The authors "identified studies relevant to the bulk of cancer types and found that, across these studies, blacks had a 16 percent increased risk of death" relative to whites. After correcting this estimate for overall higher mortality rates among blacks [that is, death from all other causes], they discovered that the "pooled estimate of cancer-specific mortality for blacks" was only 7 per cent higher.[2] Looking at specific types of cancer, the authors found that much of the excess mortality arises from increased risk of death for blacks with breast cancer, uterine cancer, and bladder cancer. No significant differences in survival rates were found between blacks and whites with lung cancer, colorectal cancer, prostate cancer, and 8 other cancers assessed in the study.[3]

Responding to hypotheses about differences in cancer biology, Bach et al claim, "We did not observe the impact of these putative biological differences consistently in cohorts of comparably treated black and white patients with cancer of similar stage once we took into account differences in underlying death rates."[4]

The authors point out that many of the studies conducted demonstrate that blacks are less likely to receive optimal care for cancer than whites and are more likely to be diagnosed at an advanced disease stage. They suggest that finding remedies for

these inequalities and addressing control of co-morbid disease should be a primary target of public health research.

Questions for Discussion

1. Do you think that these data support the authors' claim that survival after a cancer diagnosis is related to quality of treatment and other causes of death rather than to differences in cancer biology between blacks and whites?
2. What effect, if any, should the information presented by Bach et al have on a physician who has just diagnosed cancer in a black patient? Should it alter the way the physician proceeds?
3. What implications should the Bach at al findings have for further research?

References

1. Bach PB, Schrag D, Brawley OW, Galaznik A, Yakren S, Begg CB. Survival of blacks and whites after a cancer diagnosis. *JAMA*. 2002;287(16):2106-2113.
2. Bach, 2110.
3. Bach, 2110-2111.
4. Bach, 2111.

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