Social Factors Not Genetics Drive Racial Disparities in Colorectal Cancer Survival

Atlanta 2007/04/23 -Correcting social, economic and healthcare inequalities may have the most significant impact in reducing survival differences in colorectal cancer (CRC) between African Americans and Caucasians, according to a new study. Published in the June 1, 2007 issue of CANCER, a peer-reviewed journal of the American Cancer Society, a meta-analysis of data from published studies demonstrated that when socioeconomic factors and treatment utilization were controlled for or equalized, racial disparities disappeared almost entirely.

Lower socioeconomic status (SES) is well known to be associated with poorer health outcomes, including higher death rates. It is linked to impediments to healthcare access and receiving suboptimal care; higher risk of exposure to occupational and environmental hazards; and riskier behavior and less healthy lifestyles.

Survival differences in CRC between African Americans and whites have been well documented in the epidemiology literature. At the beginning of the 21st century, African Americans were dying from CRC at significant higher rates than white Americans. At five years after diagnosis, almost half of African Americans would be dead from CRC compared to just one third (35 percent) of white Americans. Research indicates that factors such as lower utilization of screening tests, lower rates of surgery and adjuvant chemotherapy, more aggressive tumors, and poor post-treatment surveillance contribute to lower survival rates. However, the fundamental causes of these associations, including the importance of biologic versus socioeconomic factors, remain poorly characterized.

For their new study, Dr. Xianli Du, Tamra Meyer, and Dr. Luisa Franzini of the University of Texas Health Science Center of Houston reviewed the literature and aggregated the data from ten studies that investigated the association between CRC survival and race/ethnicity after controlling for SES and treatment. The meta-analysis approach aims to effectively increase sample size and therefore the statistical validity of the analysis.

The authors found that the overall risk of CRC-related death was only slightly elevated after adjusting for SES and treatment. African Americans had only marginally higher CRC mortality (hazard ratio: 1.13) and all-cause mortality (hazard ratio: 1.14).

“These findings,” conclude the authors, “demonstrated that there is no strong evidence of racial disparities in survival between African-Americans and Caucasians with colon cancer after accounting for racial differences in socioeconomic status.” Therefore, conclude the authors, “efforts to eliminate racial disparities in health care and to minimize disparities in socioeconomic status have the potential to reduce racial inequalities in colon cancer survival.”

Article: “Meta-analysis of Racial Disparities in Survival in Association with Socioeconomic Status among Men and Women with Colon Cancer,” Xianglin L. Du, Tamra E. Meyer, Luisa Franzini, CANCER: Published Online: April 23, 2007 (DOI: 10.1002/cncr.22664); Print Issue Date: June 1, 2007.

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