Black patients with cancer fare worse with COVID-19, study shows

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Black patients with cancer experienced significantly worse outcomes after COVID-19 diagnosis than non-Hispanic white cancer patients in a study published March 28 in *JAMA Network Open*. Investigators of the COVID-19 and Cancer Consortium, which includes more than 125 cancer centers and other organizations, studied the electronic health records of 3,506 patients for the analysis, including data of 1,068 Black patients and 2,438 non-Hispanic white patients.

"We saw worse COVID-19 illness at presentation, higher rates of hospitalization, higher rates of intensive care unit admission, higher rates of mechanical ventilation and worse death rates in Black patients compared to non-Hispanic white patients, even after making the two groups comparable in terms of type, status and treatment of cancer by statistical analysis methods," said senior and corresponding author Dimpy Shah, MD, Ph.D., assistant professor of population health sciences at The University of Texas Health Science Center at San Antonio (UT Health San Antonio). Dr. Shah leads the cancer and infectious diseases epidemiology research program at the Mays Cancer Center, home to UT Health San Antonio MD Anderson Cancer Center. The program has specific focus on minority health and health disparities. Dr. Shah also serves as steering committee member, lead epidemiologist and patient advocacy co-chair for CCC19.

Structural racism

A framework of structural racism in the U.S. can explain the increased COVID-19 burden in Black patients, Dr. Shah and her co-authors wrote. Structural racism refers to the ways in which societies reinforce systems of health care, law enforcement, education, employment, benefits, media and housing, perpetuating discriminatory distribution of resources and attitudes, the authors wrote, citing a 2017 article by Zinzi D Bailey, ScD, et al., published in *The Lancet*.

"Race in medicine is largely a social construct because the majority of differences in health outcomes between Black patients and white patients are due to systematic racialization," Dr. Shah said. "Some of the societal root causes of health disparities, including lack of access to health care, social determinants of health, preexisting comorbidities and access to clinical research, are common to both cancer and COVID-19, and together these two diseases create a perfect storm."

Treatments

The researchers also noted differences in COVID-19 treatments provided to the two groups. Hydroxychloroquine was prescribed more in Black patients, and white patients had higher administration of remdesivir. Remdesivir is an antiviral drug approved by the U.S. Food and Drug Administration (FDA) to treat COVID-19 in adults and children 12 and older. Hydroxychloroquine, meanwhile, is a malaria drug. The FDA withdrew emergency use authorization of it after data indicated it is not effective in treating the coronavirus.

Although Black individuals represent 13% of the U.S. population, they account for 20% of COVID-19 cases and 23% of COVID-related deaths, the study authors noted.

"We saw that Black patients with cancer and COVID-19 infection are facing a disproportionately higher burden of COVID-19 complications and death," said Sonya Reid, MD, MPH, assistant professor of Medicine at Vanderbilt-Ingram Cancer Center, who was a lead author of the study. "This is unfortunately very similar to what we have seen with racial disparities in cancer outcomes. We now have to prioritize addressing the root causes of health disparities in order to achieve equitable care for all patients."

Cancer burden greater

Disparity is also seen in cancer epidemiology. The cancer burden is greater in Black individuals (461 new cancer cases per 100,000) than in white individuals (445 new cancer cases per 100,000). Mortality in Black individuals is higher (174 deaths per 100,000) than in white individuals (152 deaths per 100,000). This is a 15% difference in the cancer-associated death rate in Black patients compared to non-Hispanic white patients.

"Black patients fare worse with cancer outcomes for a range of reasons, including access and many aspects that plague cancer health equity," said Ruben Mesa, MD, FACP, executive director of the Mays Cancer Center. "The Mays Cancer Center is committed to improving cancer health equity across all peoples, and crucial knowledge from studies such as this help focus the needed work ahead."

Fair opportunity

"Structural racism and discrimination create inequitable access to health care and other health-promoting assets for our vulnerable communities, including Blacks and Latinos," said Amelie G. Ramirez, DrPH, chair of the Department of Population Health Sciences and director of the Institute for Health Promotion Research at UT Health San Antonio.

"This issue warrants more research to change structures and systems toward health equity, where everyone has a fair, just opportunity to be their healthiest, and better quality of life for all our patients," said Dr. Ramirez, who serves as associate director of cancer outreach and engagement for the Mays Cancer Center.

The study is another step toward changing attitudes to hopefully change

health, the leaders agreed.

"There have been unfounded claims that structural racism does not exist," said Dr. Shah, a senior member of the CCC19 Racial Disparities Interest Group. "Besides adding to the science of COVID-19 and cancer, this study is important because it is a call to action that structural racism still very much exists, and we can see the evidence of how it affects our minority patients with cancer."

"Understanding and addressing racial inequities within the causal framework of structural racism is essential to reduce the disproportionate burden of diseases, such as COVID-19 and cancer, in Black patients and other minorities," the authors concluded.

More information: Julie Fu et al, Racial Disparities in COVID-19 Outcomes Among Black and White Patients With Cancer, *JAMA Network Open* (2022). DOI: 10.1001/jamanetworkopen.2022.4304

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