Patient race linked to poorer survival in acute myeloid leukemia

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Self-reported patient race is the most important factor associated with

poorer survival in patients with acute myeloid leukemia (AML), according to a study presented at the annual meeting of the American Society of Hematology, held virtually from Dec. 5 to 8.

Bhavana Bhatnagar, D.O., from The Ohio State University Comprehensive Cancer Center in Columbus, and colleagues used Surveillance, Epidemiology, and End Results Program data to compare survival for 11,190 non-Hispanic Black and White adults (aged 18 to 60 years) with AML and performed mutational profiling of 81 genes in 1,339 AML patients treated on frontline Alliance for Clinical Trials in Oncology protocols.

The researchers found that after accounting for other variables, the strongest factor affecting survival of AML patients was self-reported race. The risk of death was higher for Black AML patients versus White patients (hazard ratio, 1.28), with three-year overall survival rates of 32 and 41 percent, respectively. Among patients treated on Alliance protocols, Black patients had inferior disease-free survival (median, 0.8 versus 1.4 years) and overall survival (median, 1.2 versus 1.8 years) compared with White patients. Compared with White patients, Black patients less often had normal cytogenetics and had lower frequency of prognostically favorable *NPM1* mutations, and higher frequencies of spliceosome gene mutations. Compared with wild-type patients, Black patients harboring *FLT3*-ITD or *IDH2* mutations had shorter overall survival (hazard ratios, 1.95 and 2.17, respectively).

"It was notable that several of the mutations that have known prognostic impact in AML patients as a whole—and that we typically use to classify patients' disease—do not seem to carry the same prognostic relevance for younger Black patients." Bhatnagar said in a statement. "Furthermore, when we looked at all younger AML patients, Black race was an independent predictor of poor outcome in both the SEER and Alliance data sets. This suggests that Black race by itself seems to be

such a strong risk factor that it adds to the markers we usually rely on to risk-stratify patients."

Several authors disclosed financial ties to the biopharmaceutical industry.

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