Triple Negative Breast Cancer More Likely to be Diagnosed in Black Women, Regardless of Socioeconomic Status

ATLANTA – May 12, 2014—An analysis of a large nationwide dataset finds that regardless of their socioeconomic status, black women were nearly twice as likely as white women to be diagnosed with triple-negative (TN) breast cancer, a subtype that has a poorer prognosis. The analysis also found that Asian/Pacific Islander women were more likely to be diagnosed with another subtype of breast cancer: so-called human epidermal growth factor receptor 2 (HER2)–overexpressing breast cancer. The study appears early online in Breast Cancer Research and Treatment.

Triple-negative breast cancers are those whose cells lack estrogen receptors and progesterone receptors, and do not have an excess of the HER2 protein on their surfaces. Triple-negative breast cancers tend to grow and spread more quickly than most other types of breast cancer, and a lack of these receptors limits treatment options.

Previous studies have indicated that non-Hispanic blacks and Hispanics were more likely to be diagnosed with triple negative breast cancer than non-Hispanic whites. Some studies have suggested that the higher odds of breast cancer subtypes with unfavorable prognoses in minority racial/ethnic groups could be explained by differences in socioeconomic status. However, these studies were limited by their small and incomplete sampling.

For the current study, scientists led by Helmneh Sineshaw, M.D., MPH, analyzed data from 260,174 breast cancer cases recorded in the National Cancer Data Base (NCDB), a national hospital-based cancer registry database jointly sponsored by the American College of Surgeons and the American Cancer Society. The analysis showed that patients with low socioeconomic status had higher proportions of triple negative breast cancers than did patients with high or moderate socioeconomic status. However, even after controlling for socioeconomic status, the difference remained: black women were 1.84 times as likely to be diagnosed with the triple negative subtype. The researchers also found that compared with white women, Asian/Pacific Islander women had higher odds of presenting with HER2-overexpressing breast cancer, a difference that was also observed at every level of socioeconomic status.

“The excess odds of triple negative breast cancer in blacks compared to whites were remarkably similar, about 80% higher, in each socioeconomic group,” said Dr. Sineshaw. “That consistent increase suggests factors other than differences in socioeconomic status play a strong role in the excess odds seen in black women. Further studies are needed to identify those factors.”

Article: Association of Race/Ethnicity, Socioeconomic Status, and Breast Cancer Subtypes in the National Cancer Data Base (2010-2011); H Sineshaw, M Gaudet; E Ward; W Flanders; C Desantis; C Lin; A Jemal. Breast Cancer Res Treat doi: 10.1007/s10549-014-2976-9