Minorities most likely to have aggressive tumors, less likely to get radiation

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Women with aggressive breast cancer were more likely to receive adjuvant chemotherapy, but at the expense of completing locoregional radiation therapy, according to recently presented data. This was especially true in minorities, who were the most likely to present with moderate- to high-grade and symptomatically detected tumors.

"Radiation treatment decreases the risk for breast cancer recurring and improves survival from the disease," said Abigail Silva, M.P.H., Susan G. Komen Cancer Disparities Research trainee at the University of Illinois in Chicago, who presented the results at the Fifth AACR Conference on The Science of Cancer Health Disparities, held Oct. 27-30, 2012.

Prior studies have shown that black and Hispanic women are less likely than white women to obtain radiation treatment when eligible, and this may partly explain racial/ethnic disparities in breast cancer outcomes, according to Silva.

To further examine factors in disparities in guideline-concordant radiation treatment, Silva and colleagues gathered interview and medical record data from a population-based study of patients with single invasive primary tumors, including 397 non-Hispanic whites, 411 non-Hispanic blacks and 181 Hispanics.

Of the patients who consented to medical record abstraction and were eligible for radiation treatment, 88 percent received a recommendation for radiation treatment and 93 percent of those patients accepted treatment. However, only 97 percent of patients who accepted treatment actually received radiation. Therefore, initiation occurred in only 79 percent of the initial population of women who were eligible for radiation treatment.

Data indicated that minority women were less likely to initiate radiation treatment compared with non-Hispanic white women. In addition, minority women were more likely to have moderate- to high-grade tumors and symptomatically detected tumors.

"We also found that patients who got chemotherapy were less likely to get radiation when they needed it," Silva said. "Because minorities tended to have more aggressive breast cancer that more often required chemotherapy, this disproportionately affected them."

Given these results, Silva and colleagues said clinicians may not be recommending guideline-concordant radiation treatment to all eligible patients.

"Indeed, we found that once a treatment recommendation was made, the vast majority of patients received treatment," Silva said. "In addition, greater diffusion of gene expression profiling may improve cancer care, not only by reducing overuse of chemotherapy but by eliminating chemotherapy as a potential barrier to receipt of radiation."

In the next phase of their research, Silva and colleagues plan to examine the role of mutable patient factors such as social support, cultural beliefs and provider mistrust, which may help explain the disparity in initiation of radiation treatment.

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