Delivering Chemo in Older Breast Cancer Patients

BY AMY GALLAGHER

In a large cohort of female breast cancer patients, researchers at The University of Texas MD Anderson Cancer Center showed that delaying chemotherapy beyond 90 days after surgery negatively affects survival in older breast cancer patients, with race and ethnicity also associated with delays in treatment.

“This research confirms that the proportion of elderly breast cancer women, particularly those belonging to racial/ethnic minorities, experienced a delay in chemotherapy initiation, which is associated with adverse outcomes,” noted lead author, Mariana Chavez MacGregor, MD, MSC, Associate Professor in the Department of Health Services Research and the Department of Breast Medical Oncology.

A delay in chemotherapy significantly worsens survival, said MacGregor, whose work focuses on identifying populations that are less likely to receive prompt treatment. “If the delay in chemotherapy treatment extends beyond the 90 days after surgery, the survival outcome can be worse.”

As observed among the elderly breast cancer patients, those of lower socioeconomic status and those belonging to racial/ethnic minority groups are more likely to experience delays.

“The advancements in the treatment for breast cancer have dramatically improved the outcomes of our patients. More patients are cured, but as we continue to work identifying new therapeutic drugs, we must also ensure that treatments are administered to all breast cancer patient populations in a timely and optimal manner,” said MacGregor. “Today, not every patient is receiving the benefits of these improvements.”

Surgeries & Hospitalization

Emergency room visits and hospitalizations from surgeries—from the time of the surgery to the initiation of chemotherapy—were evaluated and an association with delays was identified.

The study identified 14,656 patients who underwent a lumpectomy, 13,493 patients who underwent a mastectomy without reconstruction, and 818 patients who underwent a mastectomy with reconstruction. The investigators also report that patients undergoing a mastectomy (with or without reconstruction) were more likely to experience delays when compared with those undergoing lumpectomy.

Data was obtained from the Surveillance, Epidemiology, and End Results (SEER) Program and the Texas Cancer Registry, with participants residing in Texas and states reporting to SEER. Data linkages with Medicare were used to obtain complete claims data. Patients included were older than 66 with a median age of 71. All patients were Medicare beneficiaries.

Comorbidity a Factor in Delays

“We determined comorbidities using a composite validated score called the Charlson comorbidity index which predicts the 1-year mortality for a patient who may have a range of comorbid conditions, including diabetes, hypertension, COPD, liver disease, dementia, and myocardial infarction,” MacGregor said. She also mentioned that “patients with a higher comorbidity score were more likely to experience delays.”

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—Mariana Chavez MacGregor, MD, MSC, at MD Anderson Cancer Center

“In SEER and TCR, cancer staging is categorized as local, regional, and advanced,” she said. “In this study, we only included patients with local and regional disease. A total of 13,536 patients had node-positive disease, while among the 28,968 patients, 7,195 had ER/PR-negative tumors.

“Data on HER2 status started to be collected reliably in cancer registries from 2010; as such, we do not have the subtype distribution for the entire cohort.”

Among the 10,340 patients with known breast cancer subtype, 5,460 (52.8%) had HR+, HER2- tumors; 2,843 (27.5%) had HER2+ (regardless of HR status), and 2,037 (19.7%) had triple-negative tumors.

Further Research Warranted

Another study conducted on this subject evaluated a younger patient population using data from the California Cancer Registry, which showed similar results, said MacGregor.

“In a current study funded by Conquer Cancer Foundation, the ASCO Foundation and the Breast Cancer Research Foundation, we are qualitatively evaluating reasons for chemotherapy delay administration,” she said.

This ongoing study (NCT04087057) aims to comprehensively assess and identify the determinants of delays in chemotherapy initiation among breast cancer patients.

“In addition to deeply evaluating operational and personal factors, we are evaluating social support, health literacy, and trust in medical professionals using validated instruments,” MacGregor noted. “At present, we are analyzing qualitative data to further understand reasons for the delay.

“Our goal is to develop a small pilot study evaluating the feasibility of an intervention aimed at reducing the barriers of seeking treatment for the initiation of chemotherapy. The next step of research will be based on processing and analyzing qualitative data targeting more vulnerable populations to look at a more in-depth understanding of the patient experience.

“We are finalizing the first phase, which includes the interviews and analysis with results to be presented at the 2020 San Antonio Breast Cancer Symposium,” she said. “My group also has an oral presentation reporting on the impact of the Affordable Care Act decreasing in the initiation of chemotherapy treatment.”

Amy Gallagher is a contributing writer.