Immunotherapy After Melanoma Surgery Yields Survival Benefit

Sociodemographic factors may play a role in whether people receive immunotherapy.

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Real-World Data Shows Immunotherapy After Melanoma Surgery Yields Survival Benefit

Data derived from a large real-world database showed that some U.S. patients with stage 3 melanoma receive adjuvant immunotherapy (immunotherapy after surgery), and those receiving adjuvant immunotherapy had improved survival compared with those who did not, according to a study presented at the American Association for Cancer Research (AACR) Virtual Annual Meeting II, held online June 22-24.

“Patients with stage 3 melanoma tend to have poor prognosis even after curative-intent surgery,” said Justin Moyers, MD, fellow at Loma Linda University in California. In 2015, the immune checkpoint inhibitor ipilimumab (Yervoy) was approved by the U.S. Food and Drug Administration (FDA) as adjuvant treatment to reduce the risk of melanoma returning after surgery. Data from ipilimumab clinical trials have shown that it improves survival in patients with stage 3 melanoma when given in an adjuvant setting after resection, Moyers noted.

“The goal of our study was to determine the percentage of patients receiving immunotherapy after surgery in the era of FDA approval for adjuvant checkpoint inhibitors following surgical resection in the real-world setting,” Moyers said. “We also aimed to see the 24-month survival rate of those receiving immunotherapy versus those who did not.”

Moyers and colleagues utilized data from the National Cancer Database (NCDB), a joint project of the Commission on Cancer (CoC) of the American College of Surgeons and the American Cancer Society. It is a clinical oncology database, and the data are used to analyze and track patients with malignant neoplastic diseases, treatments, and outcomes. The database is the largest clinical cancer registry in the world, covering 72 percent of new cancer diagnoses in the United States, Moyers said.

The researchers queried treatment data from cases diagnosed in 2015 and 2016, and survival data from cases diagnosed in 2015. All patients had stage 3 melanoma that was surgically removed. Patients who received systemic therapies prior to surgery, and those who received chemotherapy after surgery were excluded. Patients included in the study were divided into two

groups: those who received adjuvant immunotherapy and those who did not.

Of the 4,093 patients who met the criteria for survival analysis, median overall survival was not reached at the time of this analysis in both the groups. The 24-month survival rate was not significantly different between those who received adjuvant immunotherapy and those who did not (83 percent versus 80 percent, respectively). “This is an early analysis from the first year of adjuvant checkpoint inhibitor approval and should be repeated on data in subsequent years of follow-up to see if the survival curves show further separation as years progress,” Moyers said.

The overall survival, however, for patients with stage 3C melanoma significantly improved with adjuvant immunotherapy (32 months versus 28 months).

Of the 8,160 patients who met the inclusion criteria for treatment pattern analysis, 28 percent received adjuvant immunotherapy. “The specific immunotherapeutic agent a patient received is not recorded in the database; however, based on the practice pattern and chronological approval data of different immunotherapy agents, certain deductions can be potentially made,” Moyers noted.

Patients with higher Charlson-Deyo comorbidity scores (scores of 1, 2, 3 or higher versus 0), and patients with Medicare as primary payer (versus those with no insurance, private insurance, or other sources) were less likely to receive immunotherapy. “There was a trend towards decrease in receipt of immunotherapy for those with lower income, and lower high school graduation rate (a measure of education), but this was not statistically significant,” Moyers said.

“Based on our findings, immunotherapy after resected stage 3 melanoma appears to reveal a trend for real-world 24-month survival advantage compared with no therapy, supporting the role of adjuvant immunotherapy in the real-world setting,” Moyers said.

As limitations to the study, NCDB is not a population database but a cohort database of CoC-accredited institutions; therefore, disease-specific survival and recurrence/progression-free survival estimates cannot be made as this information is not reported to the database, Moyers noted. Some demographic data are not specific to individual patients but based on averages from the zip codes of the patients’ residence at diagnosis. It is likely that a subset of patients who progressed early after surgery were given immunotherapy as treatment for metastatic disease rather than as adjuvant to resection.

The American College of Surgeons and the CoC have not verified, and are not responsible for, the analytic or statistical methodology employed, or the conclusions drawn from these data by the study authors.

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