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Poster Session

Statewide rates of adjuvant checkpoint inhibitor use after definitive chemoradiation for stage III non-small cell lung cancer.

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Background: In the landmark PACIFIC trial, adjuvant durvalumab after definitive chemoradiation for unresectable stage III non-small-cell lung cancer (NSCLC) produced a 11% absolute overall survival benefit at two years compared to placebo, and the US Food and Drug Administration approved durvalumab for this indication in February 2018. We investigated the real-world use of adjuvant durvalumab and other immune checkpoint inhibitors (ICI) in a contemporary cohort of patients. **Methods:** We identified patients with unresectable stage III (AJCC 8th edition) NSCLC treated with definitive chemoradiation from February 2018 to March 2020 from a statewide radiation oncology quality consortium, representing a mix of community (n=22 centers, 336 patients) and academic practice settings (n=5 centers, 64 patients) across the state of Michigan. Use of adjuvant durvalumab or other ICI (atezolizumab, nivolumab, or pembrolizumab) was ascertained at the time of routine three- or six-month follow-up after completion of chemoradiation. Baseline characteristics of patients treated with or without adjuvant ICI were compared with the Chi-squared test for categorical variables and a two-sided t-test for continuous variables. **Results:** Of 400 patients with unresectable stage III NSCLC treated with definitive chemoradiation, 268 (67%) received adjuvant ICI. Of these, the majority received durvalumab (86%) followed by pembrolizumab (7.5%) and nivolumab (6.0%). The proportion of patients receiving ICI remained stable throughout the study period with no discernable time trends. Eight-five percent of white patients received ICI compared with 77% of black patients (p=0.04), but there were no differences in gender (54.5% male in ICI vs 52.3% no ICI), current smoking (42.2% ICI vs 37.9% no ICI, p=0.68), number of comorbidities (29.5% with 3 or more comorbidities in ICI vs. 26.5% in no ICI, p=0.86), baseline oxygen use (8.9% ICI vs 10.6% no ICI, p=0.59), age (median 66.4 years [IQR 60.3-73.4] for ICI vs. 66.9 years [IQR 61.1-72.2] no ICI, p=0.89), treatment at an academic center (16.0% ICI vs 15.9% no ICI, p=0.97), or ECOG performance status (59.3% ECOG 0 in ICI vs 62.8% no ICI). **Conclusions:** In a broad range of academic and community-based practices across a state including 27 sites, only two-thirds of potentially eligible stage III NSCLC patients received adjuvant durvalumab or other ICI agents despite a proven overall survival benefit. Receipt of ICI was not strongly associated with baseline demographic or comorbidity variables. Further work will seek to clarify the patient-level reasons behind non-initiation of adjuvant ICI. Research Sponsor: None.