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PATTERNS AND OUTCOMES OF PALLIATIVE RADIATION THERAPY WITH IMMUNOTHERAPY IN RECURRENT OR METASTATIC HEAD AND NECK SQUAMOUS CELL CARCINOMA

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Background Immune checkpoint inhibitors (ICI) have been shown to improve outcomes in patients with recurrent or metastatic (R/M) head and neck squamous cell carcinoma (HNSCC). Radiation therapy (RT) is commonly incorporated into treatment of R/M HNSCC for symptom management and disease control. RT is a potential immunostimulatory treatment modality that may enhance the antitumor activity of ICI; however, ideal sequencing of RT and ICI in the palliative treatment setting is not defined. The objective of this study was to describe the patterns and outcomes of RT following ICI in R/M HNSCC.

Methods All adults (≥ 18 years) with HNSCC who received palliative ICI for R/M disease from 2015-2021 were identified from the institutional electronic medical record via ICD codes under an IRB approved protocol. Patients who received ICI for non-HNSCC, had synchronous primary tumors, or had history of hematologic malignancy or immunodeficiency were excluded. Patients without documentation of clinical outcomes after palliative RT were excluded. Retrospective data were collected and underwent descriptive analysis.

Results We identified 148 patients who received palliative ICI for R/M HNSCC. Of these patients, 55 received palliative RT with documentation of outcomes. Twenty-two of these patients underwent palliative RT while on ICI. Twelve of these 22 patients had re-irradiation of their neck, 5 had palliative RT to the lung, 4 to bone, 2 to brain, 1 to the retroperitoneum, and two to other sites. There were 15 grade 3 events. There was 1 patient (5%) with complete response (CR), 9 patients (41%) with partial response (PR), 5 (23%) with stable disease (SD), and 7 (32%) with progressive disease (PD) in the radiation site. Sixteen of the 33 patients who underwent palliative RT separately from IO had re-irradiation of their neck, 7 had palliative RT to the mediastinum, 5 to the lung, 2 to brain, 3 to liver, and 4 to other sites. There were 11 grade 3 events. There were 2 patients with CR (6%), 11 with PR (33%), 6 with SD (18%), and 14 with PD (42%) in the radiation site.

Conclusions These data suggest that concurrent ICI and palliative RT for R/M HNSCC is tolerated with a high disease control rate. Although there was a small number of patients who underwent concurrent ICI and RT, the disease control rate in this group was 68%, which is promising. Further study on the optimal type and sequence of palliative RT in this patient population is warranted.

REFERENCE

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