

Head and Neck Cancer: 2022 ASCO Annual Meeting Highlights for the Advanced Practitioner



Heidi Mason, DNP, ACNP-BC, of the University of Michigan School of Nursing, considers research on avoiding concurrent chemotherapy in patients with nasopharyngeal carcinoma being treated with radiotherapy and a clinical trial on concurrent vs. sequential fixed-dose immune therapy for head and neck cancer.

Abstract 6000

Radiation Alone Instead of Concurrent Chemotherapy for Intermediate-Risk Nasopharyngeal Carcinoma

By JADPRO Staff

Visit https://ascopubs.org/doi/abs/10.1200/JCO.2022.40.16_suppl.6000 to read the full abstract and view author disclosures.

In patients with intermediate-risk (stage II and T3N0M0) nasopharyngeal carcinoma (NPC), radiation alone rather than combination radiation and chemotherapy may be enough for patients to control disease, reported Jun Ma, MD, PhD, of Sun Yat-sen University Cancer Center in Guangzhou, China. Radiotherapy (RT) alone was associated with less toxicity but comparable survival and disease control.

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Study Design

At the 2022 ASCO Annual Meeting, Dr. Ma described a multicenter, randomized phase III trial performed at four hospitals in China to determine whether concurrent chemotherapy can be omitted safely for intermediate-risk NPC patients treated with intensity-modulated radiotherapy. Patients were aged 18 to 65 years with histologically confirmed, stage T1-2N1/T2-3N0M0, and a Karnofsky score of at least 70 without adverse features such as large lymph nodes (3 cm or larger), level IV or higher lymph nodes, presence of extranodal extension, and Epstein-Barr virus DNA level of 4,000 copies/mL or greater. They were randomly assigned to receive either concurrent chemoradiotherapy (CCRT) or radiotherapy alone. The primary endpoint was failure-free survival (FFS).

Study Results

341 NPC patients were randomly assigned to receive either radiation therapy (n = 172) or CCRT (n = 169). After a median follow-up of 41 months, 3-year FFS was 90.7% in the radiation therapy group and 92.1% in the CCRT group. No differences were observed between groups in terms of overall survival, locoregional relapse, and distant metastasis. Patients in the CCRT group developed significantly more grade 3 to 4 hematologic and nonhematologic adverse events such as vomiting (CCRT group 14.8% vs. RT group 1.2%), anorexia (29.9% vs. 4.8%), mucositis (18.9% vs. 9.7%), and weight loss (4.7% vs. 0.6%). No patients died from treatment-related causes.

The Advanced Practitioner Perspective

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Concurrent chemoradiotherapy for nasopharyngeal carcinoma can lead to significant, life-long toxicities. High-dose cisplatin can cause severe nausea and vomiting, pancytopenia, and possible long-term toxicities such as peripheral neuropathy, hearing loss, and tinnitus. When combined with radiation, patients will experience an increase in severity of symptoms. The literature describes increased toxicity with concurrent therapy (Wang et al., 2019; Katano et al., 2018).

This study found that patients with stage II and T3N0 disease treated with radiation alone had similar disease control and overall survival but significantly less toxicity than those treated with concurrent chemoradiotherapy. Radiation alone could significantly improve the quality of life for patients undergoing treatment for nasopharyngeal carcinoma.

Regardless of treatment strategy, aggressive symptom management continues to be necessary to minimize pain and suffering, and to ensure patients are able to complete their therapy. Mason and colleagues (2016) concluded that patients receiving treatment for head and neck cancer have significant side effects, including mucositis, xerostomia, fatigue, skin desquamation, malnutrition, and nausea. Close monitoring by a multidisciplinary health-care team, including an oncology advanced

practitioner, is necessary to ensure adequate symptom management.

In addition to acute symptom management, advanced practitioners should educate patients on and monitor them for the long-term complications of radiation, including hypothyroidism, carotid artery stenosis, and dental issues that can lead to osteoradionecrosis.

Disclosure: Dr. Mason has no conflicts of interest to disclose.

References

Katano, A., Takahashi, W., Yamashita, H., Yamamoto, K., Ando, M., Yoshida, M.,...Nakagawa, K. (2018). Radiotherapy alone and with concurrent chemotherapy for nasopharyngeal carcinoma: A retrospective study. *Medicine*, 97(18), e0502. <https://doi.org/10.1097/md.00000000000010502>

Mason, H., DeRubeis, M. B., Burke, N., Shannon, M., Karsies, D., Wolf, G.,...Worden, F. (2016). Symptom management during and after treatment with concurrent chemoradiotherapy for oropharyngeal cancer: A review of the literature and areas for future research. *World Journal of Clinical Oncology*, 7(2), 220-226. <https://doi.org/10.5306/wjco.v7.i2.220>

Wang, C., Wang, F., Min, X., Zhang, Q., Shen, L., Jiang, Y., & Yan, J. (2019). Toxicities of chemoradiotherapy and radiotherapy in nasopharyngeal carcinoma: An updated meta-analysis. *Journal of International Medical Research*, 47(7), 2832-2847. <https://doi.org/10.1177/0300060519858031>

Abstract 6007**Sequential Pembrolizumab for Locally Advanced Head and Neck Cancer**

By JADPRO Staff

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A randomized phase II study evaluating concurrent vs. sequential fixed-dose immune therapy in combination with cisplatin and intensity-modulated radiotherapy found that sequential immune therapy is optimal in patients with intermediate- or high-risk, previously untreated, locally advanced head and neck cancer

David Anthony Clump II, MD, PhD, assistant professor of radiation oncology at UPMC and University of Pittsburgh Cancer Institute, presented the findings during a presentation at the 2022 ASCO Annual Meeting.

Study Design

Patients with intermediate-risk human papillomavirus (HPV)-positive oropharyngeal (> 10 pack years or T4 or N3) or HPV-negative previously untreated locally advanced squamous cell carcinoma of the head and neck (LA SCCHN) of the oropharynx, hypopharynx, larynx, or oral cavity (unselected PD-L1 status) were randomized 1:1 (stratified by HPV and nodal stage) to receive chemoradio-

therapy (cisplatin 40 mg/m² weekly + radiation therapy consisting of 70 Gy in 35 fractions) and concurrent or sequential pembrolizumab 200 mg every 3 weeks for 8 doses total. Pembrolizumab was started 1 week prior to chemoradiotherapy in the concurrent arm and 2 weeks after chemoradiotherapy in the sequential arm. The primary objective was to evaluate two schedules of pembrolizumab (concurrent vs. sequential) combined with chemoradiotherapy.

Results

80 patients were randomized in the study, with 41 participants receiving concurrent pembrolizumab and 39 patients receiving sequential pembrolizumab along with chemoradiotherapy. Minimum follow-up was 9 months with a median of > 24 months. Both treatment schedules met the predefined composite endpoints of rate of dose-limiting toxicity, local failure rate, and 1-year progression-free survival (PFS).

The 1- and 2-year PFS for sequential pembrolizumab of 89% was numerically higher than 82% and 78% for concurrent pembrolizumab. Overall survival (OS) at 1 and 2 years was 94% for sequential and 82% and 78% for concurrent pembrolizumab. Median PFS and OS were not reached in either arm.

Grade 3 adverse events were 76.7% with concurrent vs. 58.9% with sequential pembrolizumab added to chemoradiotherapy. There were 2 grade 5 events with sequential pembrolizumab and 3 grade 5 events with concurrent pembrolizumab.

The Advanced Practitioner Perspective

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Concurrent chemoradiotherapy has been the primary treatment modality for patients with advanced head and neck cancer. Currently, the role of immune checkpoint inhibitors (ICI) such as pembrolizumab (Keytruda) is being explored to improve progression-free survival (PFS). The key is to find the best treatment plans to improve PFS and avoid undesirable toxicities. Although monotherapy with ICIs has not demonstrated significant response rates, adding these agents to chemoradiotherapy, either concurrently or sequentially, has contrib-

uted to a synergistic effect (Qian & Schoenfeld, 2020).

This study found that sequential pembrolizumab improved PFS when compared with concurrent pembrolizumab and chemoradiotherapy. The researchers also found tolerable toxicities in both arms of the study. Most of the literature supports a low rate of grade 3 and 4 toxicities with ICIs given either concurrently or sequentially (Powell et al., 2020; Qian & Schoenfeld, 2020).

A possible toxicity of radiation and sequential ICI is radiation recall. Teng and colleagues (2020) found that ICIs could evoke an inflammatory reaction in patients' previously

irradiated fields. While their study specifically explored pneumonitis, similar reactions, like mucositis, can also occur in patients with head and neck cancer.

Furthermore, they found that radiation recall is manageable but should be treated like any other ICI reaction, by stopping treatment and possibly starting steroids per National Comprehensive Cancer Network (NCCN) Guidelines. Moreover, NCCN Guidelines should be followed for any ICI toxicities (NCCN, 2022).

As advanced practitioners, we need to be prepared to both detect and treat ICI toxicities. A thorough history and physical exam should be performed before each infusion. Laboratory studies can also detect an inflammatory response but must be correlated with physical signs and symptoms. The prompt identification and treatment of ICI toxicities can avoid unnecessary suffering.

Disclosure: Dr. Mason has no conflicts of interest to disclose.

References

Powell, S. F., Gold, K. A., Gitau, M. M., Sumey, C. J., Lohr, M. M., McGraw, S. C.,...Spanos, W. C. (2020). Safety and efficacy of pembrolizumab with chemoradiotherapy in locally advanced head and neck squamous cell carcinoma: A phase Ib study. *Journal of Clinical Oncology*, *38*(21), 2427-2437. <https://doi.org/10.1200/JCO.19.03156>

Qian, J. M., & Schoenfeld, J. D. (2020). Radiotherapy and immunotherapy for head and neck cancer: Current evidence and challenges. *Frontiers in Oncology*, *10*, 608772. <https://doi.org/10.3389/fonc.2020.608772>

Teng, F., Li, M., & Yu, J. (2020). Radiation recall pneumonitis induced by PD-1/PD-L1 blockades: Mechanisms and therapeutic implications. *BMC Medicine*, *18*(1), 275. <https://doi.org/10.1186/s12916-020-01718-3>

NCCN. (2022). NCCN Clinical Practice Guidelines in Oncology: Management of Immunotherapy-Related Toxicities. V1.2022.