Detecting HPV-Driven Oropharyngeal Carcinoma Recurrence Using Circulating Tumor HPV DNA

SCIENTIFIC ORAL PRESENTATIONS

Bookmark

Add note

Share

View on map

About

Introduction: Our institution utilizes neoadjuvant chemotherapy followed by transoral robotic surgery and neck dissection (NAC+S) as a novel de-escalated treatment strategy for selected patients with HPV-driven oropharyngeal squamous cell carcinoma (HPV OPC). As our approach has been shown to have non-inferior DFS and reduced treatment related morbidities, we aim to describe trends in persistent disease or recurrence using circulating tumor tissue modified viral (TTMV)-HPV DNA (ctHPVDNA) obtained during routine surveillance in this group of patients.

Methods: A retrospective review was performed to identify patients who were ≥ 3 months posttreatment with NAC+S for HPV OPC between May 1, 2008 and January 1, 2023. Included patients had a ctHPVDNA test (NavDx) obtained during posttreatment surveillance. Further analysis will be performed to quantify treatment response using ctHPVDNA collected during treatment.

Results: Eleven HPV OPC patients with a mean age of 62.2 years were included. All patients had stage III or IV disease per AJCC 7th Edition criteria; none had T4 or N3 disease. Posttreatment pathologic stages ranged from ypT0N0 (63.6%, n=7) to ypT1N1. Seven patients were tested for ctHPVDNA by 13 months posttreatment and three patients were tested at >6 years postreatment (all negative). ctHPVDNA was detected in three patients (all within 24 months of treatment), confirming PET/CT findings of recurrence in the first patient and prompting further evaluation in the rest. In the third patient, the positive ctHPVDNA detected a strain of HPV that was different from the original tumor sample strain. To date, 9 of the 11 patients are disease-free from HPV OPC, and those with persistent disease confirmed were salvaged with chemoradiation.

Conclusions: With the emergence of de-escalation treatment protocols for HPV OPC, ctHPVDNA tests have shown excellent correlation with pathologic downstaging achieved after NAC+S. While this subset of patients was clinically deemed to be free of disease based on favorable pathology, posttreatment PET/CT, and physical exam, the ctHPVDNA test is a useful tool in guiding therapy and surveillance.

Categories

Session Type

Scientific Oral Presentations

Session Track

Head and Neck Surgery

Information

Monday, Oct 2, 2023

8:00 AM – 8:06 AM (CST)

Level_2 · MCC, 201AB