A Case of Chronic Sore Throat Caused by HPV

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Background

HPV is a common sexually transmitted infection most associated with cervical cancers. It is a small double stranded DNA virus that can have different presentations depending on the strain involved. Low risk strains (HPV 6 and 11) often present with anogenital warts while high risk strains (HPV 16 and 18) can present with oropharyngeal and anogenital cancers due to the expression of E6 and E7 oncogenes that maintain continuous cell division. The virus preferentially targets undifferentiated cells with a high mitotic rate (such as the transformation zone of the cervix where the glandular endocervix transitions into the squamous ectocervix).

While main transmission occurs in the form of sexual contact, it can also be transmitted through non-sexual contact or vertical transmission resulting in unique presentations. Smoking and alcohol consumption are common triggers known to initiate the process of oncogenesis. Current strategies for prevention and treatment involve the use of the bi-valent, quad-valent, and 9 valent vaccines that target specific strains. Our case focuses on a unique presentation of sore throat secondary to squamous cell carcinoma from HPV 16.

Case Presentation

A 60-year-old male with a past medical history of GERD, tobacco abuse, hyperlipidemia, anxiety disorder and small hiatal hernia presented with a chief complaint of progressively worsening sore throat for the past year. He described it as 6/10 on pain scale and the pain was getting worse with spicy, chocolate, coffee and citrus foods. Also talking made the pain more pronounced. Moisture from the hot shower sometimes reduced the pain. After multiple visits to the office, it was seen he had a tongue mass which was increasing in size. Except the local pain which could be severe at time, the mass was associated with dysphagia, tongue numbness and tingling, weight loss and night sweats. There were no otalgia, shortness of breath, or bleeding. The patient had more trouble with increasing oral secretion. Tramadol was only partially effective at controlling his pain.

During a physical exam he was noted to have a level 2 cervical lymph node on the right. There was no trismus upon opening his mouth. Tumor was found from the lateral tonsil to the soft palate on to the GT sulcus and across the base of the tongue. There was fullness of the tumor on the right without overlying ulceration. The left side and root of the tongue were free of palpable tumor and the epiglottis was clear on laryngoscopy.

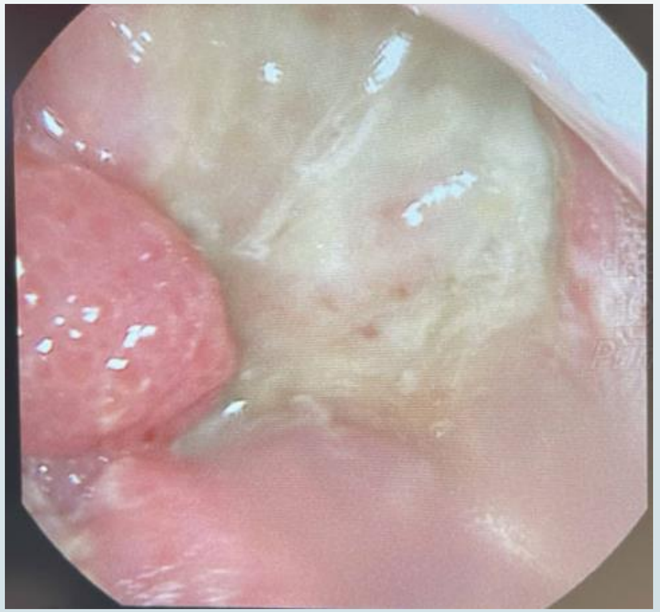
With regards to risk factors, he has a 40 pack-year smoking history. Family history is remarkable for a mother with lymphoma, and cancer in his sister and father.

Nasopharyngeal Laryngoscopy

Tongue deviated to the right with tethering posteriorly.

Squamous cell carcinoma of the right tonsil with cavitary lesion at the base of the tongue.

Floor of the mouth is intact.



Conclusion

CT neck showed large lobulated mass centered on the right tongue with extension across the midline. PET scan showed increased uptake in the right tongue base mass and right level 2A, 2-3, and 4 cervical lymph nodes. Pathology from FNA confirmed HPV p16+ squamous cell carcinoma.

After an excellent response to carboplatin, paclitaxel, and pembrolizumab, he transitioned to concurrent cisplatin and radiation. Radiation was started on 1/11/2023. Cisplatin 40 mg/M2 weekly was initiated on 1/13/2023. He tolerated a total of five weekly treatments - 240 mg/M2. 70 Gray of radiation was completed on 3/3/2023. He underwent an NPL (nasopharyngeal laryngoscopy) on 6/2/2023 for examination of the primary site and his ulcer. A biopsy of the site was negative. Restaging scans were done with the chest, abdomen, and pelvis on 6/3/2023 showing no distant spread. He proceeded to the OR on 6/6/2023 where he was found to have a 0.4cm focus of residual squamous cell carcinoma that had been fully resected. He was then transitioned to surveillance.

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