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## Teaching Case

# Recurrent squamous cell carcinoma involving cranial nerves in a patient with left glottic carcinoma treated with definitive radiation therapy: A case report



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## Introduction

Side effects from definitive radiation therapy in patients with cancers of the head and neck are not uncommon. Controlling the acute side effects of treatment, including mucositis, xerostomia, dysphagia, and dysphonia, is of the utmost necessity because these symptoms are potentially debilitating and may jeopardize patients' adherence to treatment regimens. In the longer term, persistent xerostomia, difficulties with speech and swallowing, and fibrosis have been noted in patients who have received radiation therapy.<sup>1</sup> Radiation-induced cranial neuritis, although rare, has also been observed and most often affects the sixth and twelfth cranial nerves.<sup>2</sup> When patients with a history of head or neck radiation treatment develop these symptoms, however, clinicians must maintain a wide differential diagnosis because each of these symptoms has a vast array of potential etiologies. In this report, we present a patient whose symptoms, although mirroring

some of those known to be long-term consequences of radiation therapy, were instead found to be a manifestation of a recurrence of squamous cell carcinoma (SCC) limited to the cranial nerve tract.

## Case report

A 53-year-old man with a 50 pack-year smoking history initially presented to his primary care physician with nasal congestion and otalgia. Two months later, after antibiotics failed to ameliorate these symptoms, he developed progressive hoarseness and throat discomfort. Flexible fiberoptic laryngoscopy (FFL) performed by a specialist revealed an exophytic, left true vocal cord lesion. The patient was then referred to our institution, where a repeat FFL showed mucosal irregularity of the left true vocal cord in the context of otherwise symmetrically mobile vocal cords. Computed tomography scans of the neck demonstrated irregularity and thickening of the left true vocal cord with obscuration of the laryngeal ventricle.

Microdirect laryngoscopy with partial excision of the left true vocal cord mass was performed to acquire tissue. A 10-mm mass along the superior surface of the left true

Conflicts of interest: None.

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