



# Warthin Tumor of the Oropharyngeal Minor Salivary Gland

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## Abstract

Warthin tumors are the second most common benign salivary gland tumor that classically arise in the parotid gland. The tumors can present synchronously or metachronously, be multifocal, unilateral or bilateral, which can complicate the diagnosis and management. Rare cases of the tumor have been described, but **no cases of unilateral synchronous warthin tumor involving the parotid and minor salivary gland have been reported**. We present a case of WT arising from a minor salivary gland in the left oropharynx in a 71-year-old male with a previous history of left parotid warthin tumor later determined to be synchronous.

## Introduction

The Warthin tumor (WT) is the second most common salivary gland neoplasm accounting for 3-17% of tumors in the parotid gland.<sup>1,2</sup> It is a benign neoplasm almost exclusive to the parotid gland and presents as a slow growing, smooth, fluctuant mass.<sup>1,2</sup> WT are encapsulated and have a unique histology composed of cystic and solid areas with both oncocytic epithelium and lymphoid stroma components.<sup>1,2,3</sup> The diagnosis and management are complicated by the clinical presentation (synchronous vs. metachronous, unilateral vs. bilateral, and multifocal lesions).<sup>2</sup> WT of the minor salivary gland is rare, with only 22 reported cases in locations including the buccal mucosa, hard palate, lip and oropharynx.<sup>4</sup>

## Case Report

**HPI:** 71-year-old male with a 2 month history of dysphagia and left oropharyngeal fullness.

**PMHx:** Hypertension, dyslipidemia, atrial fibrillation, and WT of the left parotid gland diagnosed in 2008, which was treated with left superficial parotidectomy.

**SHx:** 27.5 pack year smoking history.

**Physical Exam:** left oropharyngeal soft palate fullness without ulceration.

### Imaging:

- MRI of the neck: small, submucosal ovoid shaped nodule 8 mm in diameter with a peripheral ring of enhancement in the left oropharynx.
- Pre-parotidectomy CT from 2008: Revealed a small left oropharyngeal lesion classifying this as a unilateral synchronous presentation of WT of the parotid and oropharyngeal minor salivary gland.

### Clinical Course:

- The patient underwent transoral excision of the neoplasm with simple closure.
- Histological analysis revealed warthin tumor of the minor salivary gland with a bilayered oncocytic columnar epithelium with papillary architecture and supporting fibrovascular stromal core with chronic inflammatory cells.
- No postoperative complications
- No evidence of recurrence to date.

## Discussion

- Rare cases of WT of the minor salivary gland are described but no cases of unilateral synchronous WT involving the parotid and minor salivary gland have been reported. Literature review reported only 22 cases of WT arising in the minor salivary gland with the following characteristics: mean age of presentation 58.5 years, 13:9 male:female ratio, size ranged from 0.5-4 cm, sites affected include 8 cases in the buccal mucosa, 7 cases in the hard palate, 6 cases in the lip and 1 in the oropharynx.
- Our case is the **second reported** oropharyngeal minor salivary gland WT. To our knowledge, there have been **no other publications that report unilateral, synchronous presentation of WT in the parotid gland and minor salivary gland**.
- Initially, it was unknown if the WT of the minor salivary gland was synchronous or metachronous because of the time period that elapsed between diagnoses. The CT performed in 2008 showed evidence of a much smaller left oropharyngeal lesion, classifying it as a synchronous presentation. It is presumed over the following 6 years that the lesion grew in size until it became symptomatic and required further evaluation. This suggests that the incidence of synchronous tumors could be underestimated.

## Conclusion

- WT is a benign tumor that primarily occurs in the parotid gland. Rare cases report WT in the minor salivary gland of the buccal mucosa, hard palate, lip, and oropharynx.
- This case is the **first report in the literature** of a unilateral, synchronous presentation of WT in the parotid and minor salivary gland. The minor salivary gland WT was synchronously present with the parotid WT, but was undetected at the time. This suggests that the incidence of synchronous tumors could be underestimated if there is a significant time lapse between diagnoses of multiple WT.
- Clinicians should include WT on their differential list for an oropharyngeal mass, including individuals with previous history of WT.
- Adequate follow up after original diagnosis and treatment would be beneficial to patients with WT, because of the possibility of metachronous tumors or undetected synchronous tumors arising after prolonged time intervals.

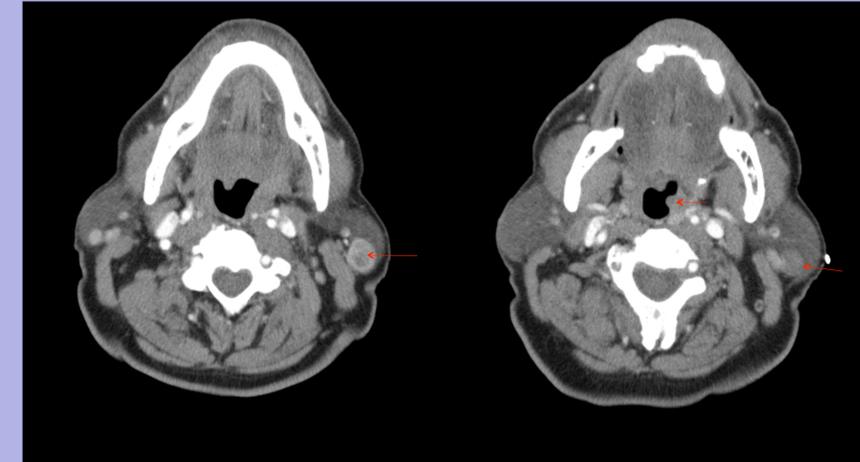


Figure 2: Contrast-enhanced axial CT images taken in 2008. The image on the left shows an enlarged left intraparotid lymph node with central hypodensity, which is suspicious for tumor infiltration. The right image shows additional intraparotid lymph nodes. In retrospect, a small nodule can be seen in the left oropharynx.

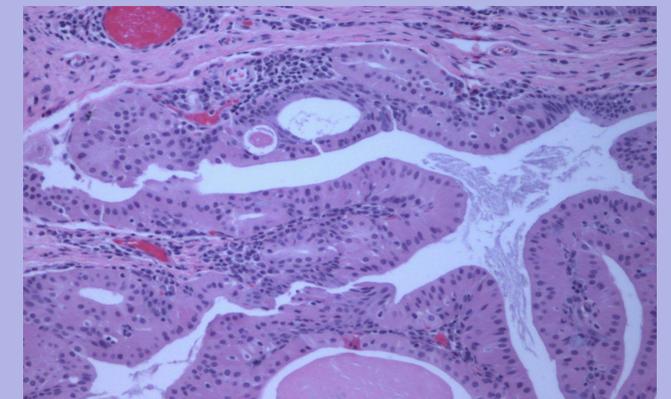


Figure 3: Warthin tumor of the minor salivary gland. Microscopic examination (100X) shows bilayered oncocytic columnar epithelium with papillary architecture and supporting fibrovascular stromal core with chronic inflammatory cells.

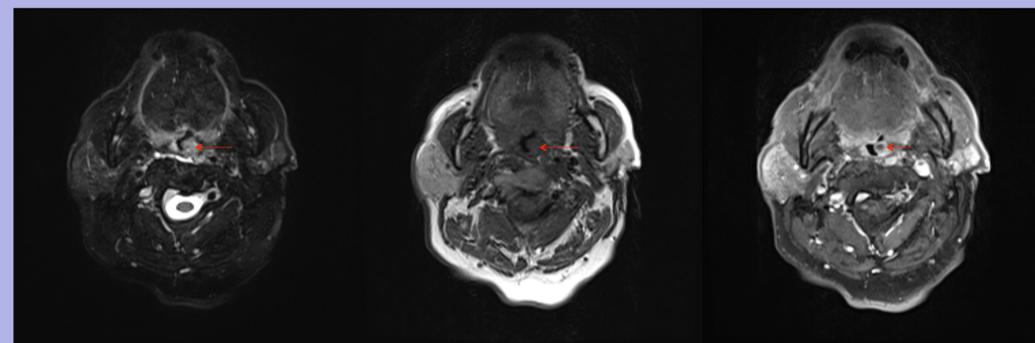


Figure 1: Select MRI images performed in 2014 for further evaluation of the left oropharyngeal nodule (from left to right: fat-saturated T2, pre-contrast T1 and post-contrast T1) show a peripherally enhancing 8mm nodule.

## References

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