

Hypopharyngeal Schwannoma

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Received date: December 19, 2022: Accepted date: January 13, 2023: Published date: January 28, 2023

Citation: Sherif M. Askar, Omair H. Al-Hussain, Ahmed I. Elsayed. (2023). Hypopharyngeal Schwannoma. *Journal of Clinical Otorhinology* 5(2); DOI: [10.31579/2692-9562/068](https://doi.org/10.31579/2692-9562/068)

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Abstract

Schwannomas (Schn) are benign encapsulated neurogenic tumors. It is the most frequent tumor of the head and neck (25-40%). The tumor has no gender/age preference; it is most frequently encountered between 20-40 years with little tendency toward females

Keywords: hypopharyngeal; heterogeneous diseases

Introduction

Schwannomas (Schn) are benign encapsulated neurogenic tumors. It is the most frequent tumor of the head and neck (25-40%). The tumor has no gender/age preference; it is most frequently encountered between 20-40 years with little tendency toward females [1-5]. Schn are derived from neural crest cells of the peripheral nerve sheath (Schwann cells). It could arise from any peripheral nerve, the cranial nerves (except the olfactory and optic nerves), autonomic nerves, and spinal nerves. Hypopharyngeal Schwannomas are very rare and only sporadic cases are reported; in the available English literature; it is more frequently reported at the tongue base, with less commonly encountered at the lateral/posterior walls of the hypopharynx [6-13]. Dreher et al. 1997 reported that it is difficult to differentiate between tumors of the hypoglossal, lingual, and glossopharyngeal nerves in most cases of intra-oral tumors [14]. Differential diagnoses should include benign salivary gland tumors, lingual thyroid, leiomyomas, lymphangiomas, hemangiomas, and lipomas [1].

Schwannomas are slowly growing masses; thus, the presentation of the patient is usually delayed. The symptoms are non-specific; about 25% of patients are asymptomatic. The usual symptoms are odynophagia, dysphagia, obstructive sleep apnea, and otalgia. A radiological examination is usually required to define the size of the mass, its margins, and possible tissue invasion. The CT scan might show a non-homogenous patchy mass with partial hyper-density after contrast enhancement. The tumor has a post-contrast enhancement on MRI [2,3]. The definitive diagnosis is gained by histopathological examination. A mixture of cell types (Antoni Type A and Type B) are found around a central hypocellular zone (Verocay bodies) and

with hyalinized vessels. The immunohistochemical study shows positive reactions to the S-100 protein [4,5]. Malignant change is very rare; however, the risk of malignancy might increase up to 15% in patients with Von Recklinghausen neurofibromatosis [14-18].

The ideal treatment is complete surgical excision. However, the hypopharynx is a challenging site for surgeons with intraoperative difficulties and postoperative functional complications. Most tumors could be effectively removed via the trans-oral approach with relatively little risk of recurrence, including those masses involving the tongue base. The trans-cervical and anterior glossectomy approaches are often used [1,15,16]. Complete excision is often feasible and the rate of recurrence is very low. With modern LASER devices, the trans-oral approach is now widely-practiced and could deal with these tumors with effective excision and low postoperative functional disabilities. Soliman et al 2019 described a hypopharyngeal Schn in a forty years old female, who presented with foreign body sensation, progressive dysphagia, and minimal respiratory symptoms. The benign mass was seen by oral examination. After radiological and laboratory preparation, the mass was effectively removed using a CO₂ laser machine. The postoperative histopathological examination proved the diagnosis. There was no evidence of recurrence more than 10 years after surgery.

Conclusion

Hypopharyngeal schwannomas are very rare neurogenic tumors. Trans-oral approach with a CO₂ laser could ensure complete excision of the tumor in a minimally invasive procedure, minimal bleeding, and less morbidity with

good functional results. Tumor recurrence is rare and malignant transformation is very rare.

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DOI:10.31579/2692-9562/068

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