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Saudi Journal of Medical and Pharmaceutical Sciences
Abbreviated Key Title: Saudi J Med Pharm Sci
ISSN 2413-4929 (Print) | ISSN 2413-4910 (Online)
Scholars Middle East Publishers, Dubai, United Arab Emirates
Journal homepage: https://saudijournals.com

Case Report **Otorhinolaryngology**

Schwannoma of the Mobile Tongue: A Case Report

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DOI: https://doi.org/10.36348/sjmps.2025.v11i06.003 | **Received:** 28.04.2025 | **Accepted:** 03.06.2025 | **Published:** 05.06.2025

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Abstract

Schwannoma is a benign peripheral nerve sheath tumor originating from Schwann cells. Its occurrence in the tongue is rare. We report the case of a 19-year-old patient presenting with a painless, slowly enlarging mass on the mobile portion of the tongue. MRI revealed a well-defined, encapsulated lesion. The mass was completely excised surgically, and histopathological examination confirmed the diagnosis of a benign schwannoma. The postoperative course was uneventful, with no recurrence observed during follow-up.

Keywords: Schwannoma- tongue- MRI- surgical.

INTRODUCTION

Schwannomas are benign tumors of peripheral nerve sheaths derived from Schwann cells. Their occurrence in the oral cavity is uncommon, accounting for approximately 1% of all cases, with a predilection for the mobile portion of the tongue [1]. Clinically, these tumors usually present as painless, slow-growing masses and are frequently diagnosed at a late stage [2]. MRI plays an essential role in preoperative evaluation, although definitive diagnosis requires histopathological confirmation [3].

CASE REPORT

The patient is a 19-year-old with no significant medical or surgical history, presenting with a swelling that had been evolving for 30 months, located in the midline and left paramedian region of the mobile tongue. Clinical examination revealed a firm, painless mass measuring approximately 3 cm, without associated signs, notably without palpable cervical lymphadenopathy. Magnetic resonance imaging (MRI) showed a well-circumscribed tumoral process in the mobile tongue, suggestive of a benign lesion, primarily consistent with a schwannoma. Local-regional and general extension assessment did not reveal any abnormalities. The patient underwent complete excision of the lesion by an endobuccal approach, performed after a vertical incision. Histopathological examination confirmed the diagnosis of a benign schwannoma. The postoperative course was uneventful, with no complications or recurrence, during adequate follow-up.

Figure 1: Image showing a swelling located in the midline and left paramedian region of the mobile tongue

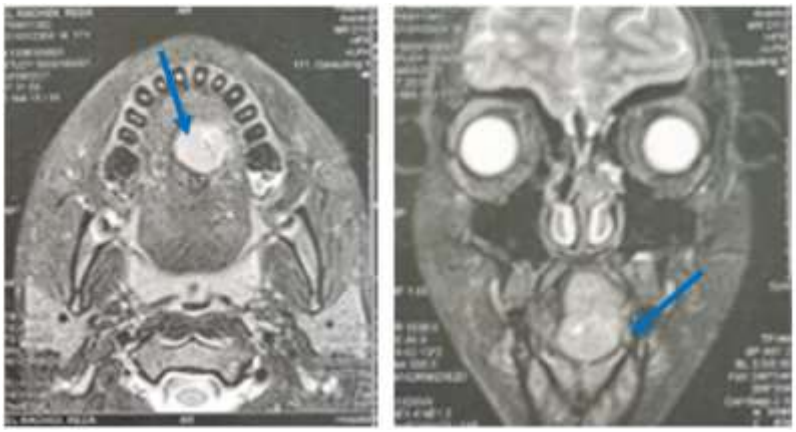

Figure 2: Axial and coronal T2-weighted MRI sequences showing a well-defined, encapsulated mass of the tongue body with high T2 signal intensity

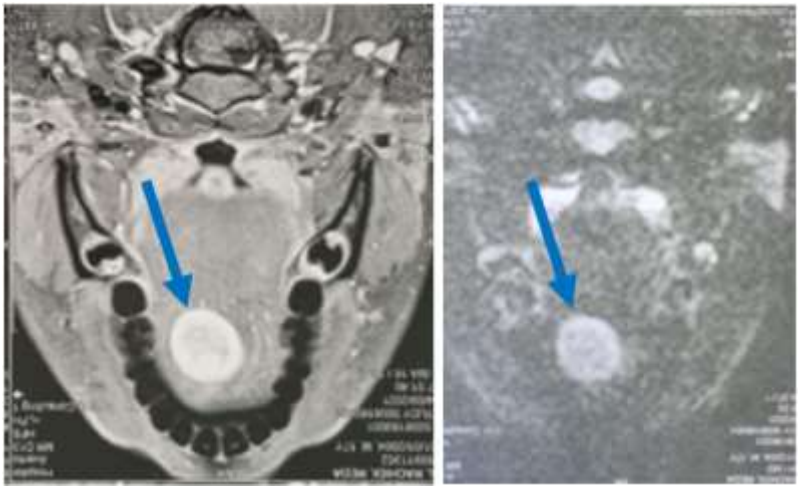

Figure 3: Axial T1-weighted sequence after gadolinium injection and diffusion sequence showing a well-defined lesion of the tongue body with high diffusion signal and marked enhancement after gadolinium administration

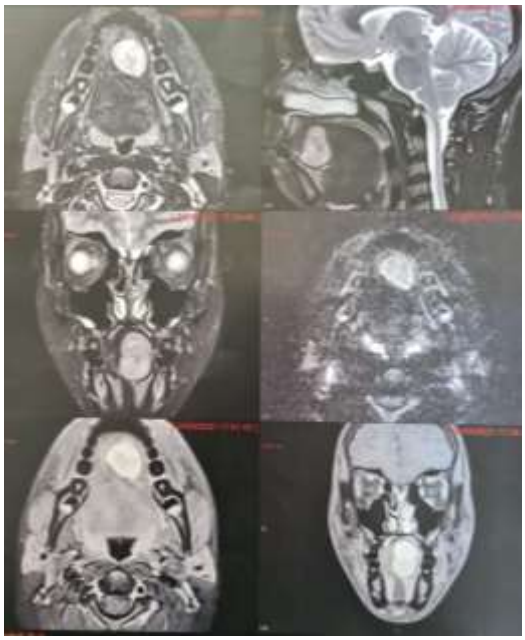

Figure 4: Encapsulated, well-defined mass with regular borders located in the tongue body, showing high signal intensity on T2-weighted images, high diffusion signal, and strong enhancement after gadolinium injection

DISCUSSION

Schwannoma, also known as neurinoma, is a benign nerve tumor originating from the proliferation of Schwann cells. It can occur on any peripheral nerve, with the exception of the olfactory and optic nerves. Its occurrence in the oral cavity is rare, representing approximately 1% of all schwannomas, with a predilection for the tongue, particularly its mobile portion [4,5].

The age distribution shows a predominance between the second and fourth decades of life [2], although the tumor can occur at any age. A slight female predominance is noted in some series, with a reported sex ratio of 1.3 females to each male [5,6].

Clinically, lingual schwannoma most often presents as a single, well-circumscribed, painless, slow-growing mass. In our case, the patient had a swelling on the dorsal surface of the mobile tongue, evolving over more than two years without pain or inflammatory signs, which is typical. The absence of cervical lymphadenopathy and neurological or functional symptoms supported the diagnosis of a benign lesion.

Imaging, particularly MRI, is the reference examination for characterizing these lesions. It allows evaluation of the size, margins, nature of the tumor, and absence of invasion into adjacent structures. The typical MRI appearance of a schwannoma is a well-defined mass, sometimes encapsulated, hyperintense on T2-weighted images, with enhancement after gadolinium injection [7].

Definitive diagnosis is based on histopathological examination. Histological analysis reveals Antoni A areas, which are hypercellular, organized in bundles and often contain Verocay bodies, alternating with Antoni B areas, which are looser and more myxoid [8]. These features were observed in our patient, confirming the benign nature of the schwannoma.

Treatment is surgical, based on complete excision. An intraoral approach is preferred for accessible locations, such as the mobile tongue. This approach offers good exposure while preserving lingual function and aesthetics [4,1]. The prognosis is excellent, with recurrences being rare in cases of complete resection.

This clinical case clearly illustrates the typical behavior of lingual schwannoma: a benign, slow-growing, often asymptomatic tumor, diagnosed late but effectively treated by conservative surgery.

CONCLUSION

Although rare, lingual schwannoma should be considered in the differential diagnosis of painless tongue masses. Its slow progression and benign nature generally allow for complete surgical excision via an endo-oral approach with an excellent prognosis. Early recognition and histological confirmation are essential to avoid unnecessary or mutilating treatments. This case highlights the importance of accurate diagnosis and appropriate conservative management.

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