

## SCHWANNOMA OF TONGUE, A RARE INTRAORAL NEOPLASM: CASE REPORT

Sreenivas Vemula<sup>1</sup>, Roshini Sumalini<sup>2</sup>, Sumalatha Kasturi<sup>3</sup>, VijayMohan Margam<sup>4</sup>, SanthoshBabu Rendla<sup>5</sup>

<sup>1, 2, 3</sup>Department of Pathology, <sup>5</sup>Department of Radiology, Chalmeda Anand Rao Institute of Medical Sciences, Karimnagar-505001, Telangana State, India.

<sup>4</sup>Department of Biochemistry, ASRAM Medical College, Eluru, Andhra Pradesh, India  
Correspondence E- mail: sreepoornam@gmail.com

**ABSTRACT:** Schwannomas are truly encapsulated neoplasms of the human body and are always solitary. Only 1-2% occur intraorally with tongue being the most common site. A 20yr old male presented with a painless, slow growing swelling on the left side of the tongue for the past 1 year. Fine needle aspiration cytology was done and a benign mesenchymal lesion, possibility of Schwannoma was given. Biopsy of the tumour was performed and sent for histopathological examination which confirmed the diagnosis of Schwannoma.

**Keywords:** Schwannoma, Tongue, FNAC.

## INTRODUCTION

Schwannomas are benign tumours of the nerve sheath. These tumours can arise from any nerve covered with a Schwann cell sheath, which includes the cranial nerves (except for optic and olfactory), spinal nerves and autonomic nervous system (Marc Cohen and Marilene B, Wang, 2013). The intraoral lesions show predilection for tongue followed by palate, buccal mucosa, lips and gingival (Rimpi Bansal, 2005). It mainly consists of two components: a highly cellular component (Antoni A) and a loose hypocellular component (AntoniB) (Enzinger FM, Weiss SW. (2013). It was first identified by Virchow in 1903 (Mosharrafa TM et al, 1997<sup>1</sup>: Schwannomas of tongue typically present in the 3<sup>rd</sup> decade of life with no sex predilection (Eur Arch Otorhinolaryngol, 2009).

## CASE REPORT

A 20yr old male presented with a painless, slow growing swelling on the left lateral border of the tongue towards the posterior aspect for the past 1 year. On clinical examination, tongue appeared bulky and a 2x2cm mass noted along the left side of the tongue without any impairment of tongue movements. It was smooth, fixed, non-tender and firm on palpation. Tongue appeared bulky. Rest of the oral cavity was normal and there was no significant lymphadenopathy. There was no evidence of similar type of nodules anywhere else in the body. Routine blood and urine investigations were within normal limits. MRI of head and neck showed a heterogenously enhancing nodular lesion measuring 41x33mm arising from left side of the tongue extending upto the lingual septum and crossing the midline noted just above the left sublingual space. A possibility of Squamous cell carcinoma, hemangioma or lymphangioma and neurogenic tumour was given .FNAC was done and the diagnosis of a benign mesenchymal lesion with the possibility of Schwannoma was given. Patient underwent diagnostic biopsy of the mass and the specimen was sent for histopathological examination.

Grossly, multiple gray white soft tissue bits aggregate into 1cm. microscopically, fragments of a spindle cellular lesion composed of cells arranged in two patterns. In one area the tissue is cellular and consists of monomorphic spindle shaped cells with scant paleeosinophilic cytoplasm and elongated nuclei (Antoni A areas). Nuclear palisading of cells and verocay bodies are also noted. In another area hypocellularity is noted with cells arranged in loosely textured matrix (Antoni B areas). A diagnosis of SCHWANNOMA was made.



Figure 1: A projecting polypoidal mass on the left side of the tongue on posterior and lateral aspect

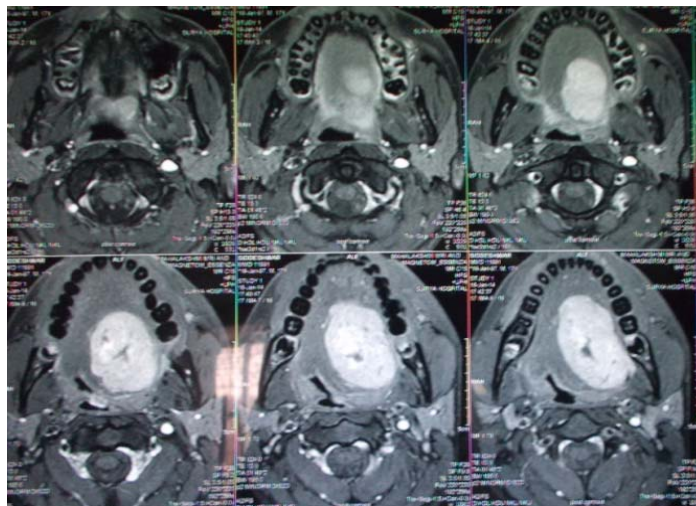


Figure 2: MRI of head showing heterogeneously enhancing mass lesion arising from left side of tongue and crossing the midline just above the sublingual space

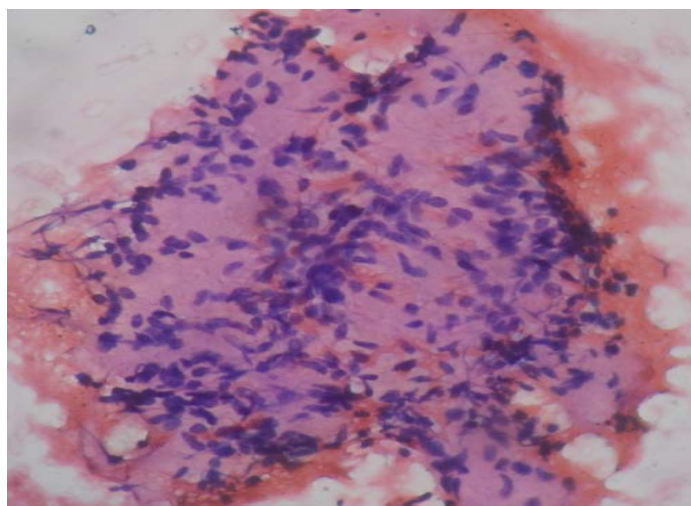
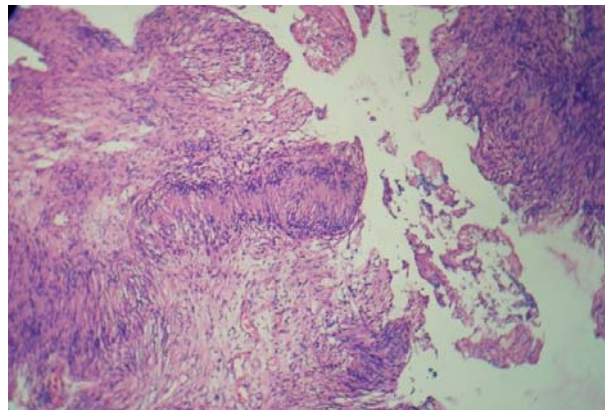


Figure 3: FNAC of the lesion showing cohesive cluster of spindle cells with palisaded nuclei separated by fibrillary stroma-H&E, x400



**Figure 4: Microscopy of histopathological section showing hypercellular Antoni A areas and hypocellular Antoni B areas. -H&E, x100**

## DISCUSSION

Schwannomas of the hypoglossal nerve are rare tumours mostly arising from the intracranial part or are dumb bell shaped with both extracranial and intracranial components. (D Sethi, et al, 2008) Mostly schwannomas occur in-between 20-50 yrs of age. In our case, the age of the patient is 20yrs who presented with a swelling on the left lateral border of tongue for the past 1 year.

Schwannomas usually present as a solitary lesion. When multiple, they are associated with neurofibromatosis (Rosai. Rosai, 2011). Schwannomas are often not taken into account during clinical practice as a diagnostic possibility. Imaging modality is mainly CT and MRI. MRI is a better choice than CT because of its increased tissue contrast and spatial resolution. On MRI, Schwannomas appears as a hypodense or isodense area in relation to muscle on T1 weighted images (Eur Arch Otorhinolaryngol, 2009, Marc Cohen and Marilene B, Wang, 2013, Husain S et al, 2011). Treatment is always surgical and usually complete excision of the lesion is the treatment of choice.

## CONCLUSIONS

Schwannoma of the tongue is a relatively rare tumour of head and neck. They should be kept in mind in the differential diagnosis of oropharyngeal masses. Histopathological examination is confirmatory. Transoral resection allows complete removal of the tumour. A complete surgical excision is usually curative in such lesions. Recurrence is rare and the chance of malignant transformation of the tumour is exceedingly unlikely.

## REFERENCES

- Christopher Fletcher. (2013). Diagnostic Histopathology of Tumors, 4th Edition, 2vol, Inc; 1532-1533.
- Enzinger FM, Weiss SW. (2013). Soft tissue tumors. 6th ed. St. Louis, MO: Mosby-Year Book, Inc; 1146-1167.
- Eur Arch Otorhinolaryngol. Nov (2009). 266(11): 1823–1829.
- Gallesio C, Berrona S. (1992). Schwannoma located in the tongue. A clinical case report. Minerva Stomatol 41: 583.
- Husain S, Yunus MR, Yunus MR, Ramli R, Ramli R, Athar PP. (2011). Schwannoma of tongue in a ten year old child: JPMA. The Journal of the Pakistan Medical Association 61(5): 500-501.
- Marc Cohen and Marilene B, Wang. (2013). Schwannoma of the tongue: two case reports and review of the literature, Acta Otorhinolaryngol Ital. Apr 33(2): 137–140.
- Mosharrafa TM, Koppersmith RB, Porter JP (1997). Pathologic quiz case 1. Malignant peripheral nerve sheath tumor of the ethmoidal sinus. Arch Otolaryngol Head Neck Surg 123: 654-7.
- Rimpi Bansal, Priti Trivedi, Shanti Patel, (2005). Schwannoma of the tongue; Oral Oncology Extra, Volume 41, Issue 2, February Pages 15-17
- Rosai Rosai and Ackerman's surgical pathology. (2011). Soft tissue tumours, 10th ed.; 2vol Inc; 2130-2132
- Sethi D, ASethi, S Nigam, A Agarwal. (2008). Schwannoma of oral Tongue: A Rare Benign Neoplasm. The International Journal of Head and Neck Surgery. Volume 3: Number 1.