Journal Homepage: - www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/18465
DOI URL: http://dx.doi.org/10.21474/IJAR01/18465

RESEARCH ARTICLE

INTRA-ORAL LINGUAL SCHWANNOMA - A RARE CASE REPORT FROM AN INDIAN TERTIARY CARE HOSPITAL

Dr. Sangita Mardam, Dr. Sneha Rathod amd Dr. Rahul Rajbhar

Manuscript Info

Manuscript History
Received: 25 January 2024
Final Accepted: 27 February 2024
Published: March 2024

Abstract

Schwannomas are most noted in the head and neck region, and their occurrence in the oral cavity is rare. Due to the rarity of intraoral schwannomas, are typically excluded from the differential diagnosis of tongue masses. Here we present such a case report describing the rare occurrence of an intra-oral lingual schwannoma in a young, male patient. The diagnosis was noted after histopathological assessment of the lesion, highlighting the importance of histopathology. Complete surgical excision of the lesion was effective without recurrence.

Introduction:-

Schwannoma or neurilemmoma, which is a benign encapsulated nerve sheath tumor, develops from Schwann cells, is most frequently encountered in the head and neck region.[1]About 25–40% of schwannomacases are noted in the head and neck region with parapharyngeal space being the commonest location in this region. However, schwannomas in the oral cavity are rare, with an incidence of only 1%.[2,3]Clinically, schwannomaspresent as benign and isolated masses, originating from Schwann cells without ulceration or tenderness.Due to their rarity, intraoral schwannomas are typically excluded from the differential diagnosis of tongue masses, which also includes dermoid cysts, inflammatory lesions, squamous cell carcinoma, granular cell tumor, sarcoma, salivary gland tumor, leiomyoma, schwannoma, rhabdomyoma, hemangioma, lipoma, and lymphangioma.[4]Literature search noted a lack of published Indian case reports on such intra-oral lingual schwannoma.

Here we present such a rare occurrence of an intra-oral lingual schwannoma in a young, male patient who was diagnosed after histopathological assessment of the lesion.

Case Details

A 21-year-old male patient presented to the General outpatient department ofPathology, KEM Hospital Mumbaiin August 2023 with complain of a lesion over the tongue from 3 years. On examination, the lesion was noted to be 1.3 x 1.5 cm in size, located over the left lateral border of the tongue. The lesion was firm and non-tender in nature. The clinician prescribed a magnetic resonance imaging (MRI) assessment for the tongue, which led to two differential diagnoses – either a vascular lesion or a minor salivary gland tumour.

The lesion was subjected to pathological assessment at the hospital. The pathology department received a container labelled as “tongue mass”, with two soft tissue sections, one being 2 x 1 x 0.3 cm and the other being 0.8 x 0.6 x 1 cm. The sections were subjected to histopathological assessment. The assessment was done by senior pathologist who has vast experience in histopathological evaluations.

Corresponding Author:- Dr. Sangita Mardam

On histopathological assessment, the sections showed benign spindle cells which indicated of a neurogenic neoplasm. Antoni A, Antoni B and Verocaybodies were also noted. Central areas of hyalinization were also observed, and entrapped skeletal muscle fibres were also noted. No evidence of malignancy was found in the observed bits. Based on the histopathological findings, the lesion gave an impression of schwannoma over the lateral border of the tongue.

After confirming the diagnosis, excision of the lingual lesion was conducted. After the excision, patient did not develop any motor or sensory deficits and no recurrence was documented in follow up till date.

Discussion:-

Though intra-oral presentations of schwannomaare a rare occurrence, the most common intra-oral site when it occurs is the tongue.[5]Theoretical aetiologies for schwannoma include extrinsic damage, persistent stimulation, and radiation exposure.[6]Due to the increased frequency of trauma to the tongue and the function of Schwann cells in the recovery of damaged neurons, schwannomas are common in the tongue.[7]No gender is predisposed to tongue schwannoma, which often affects people between the ages of first and fourth decades. Only around one-third of instances affect the base of the tongue, whereas two-thirds of cases include the oral section of the tongue.[8]Lingual schwannomas are usually slow-growing and typically asymptomatic as noted in our case, while bigger tumours at the base of the tongue can produce pain and difficulty in swallowing.[9]

For patients suspected to have lingual schwannomas, MRI is the imaging modality of choice.Routinely, schwannoma has a homogeneous, well-circumscribed border and does not break intoneighbouring tissues.[10]MRI demonstrates the tumour as an isointenselesion to muscle on T1weighted images andhomogeneouslyhyperintenseon T2-weighted images.[5,11]

Histopathology plays a critical role is differentiating lingual schwannomas from other conditions. Schwannomas are usually capsulated, and Antoni A areas show nuclear palisading around hyalinised collagenous core which leads to the typical “Verocay bodies”. Small round cells are noted in Antony B areas, again characteristic of schwannomas.[12,13]Solitary circumscribed neuroma impactsseveralareas withinthe oral cavity but may be challenging todifferentiate from a lingual schwannoma if detected on thetongue.[14,15] Analogous to schwannoma, solitary circumscribed neuroma develops as a well-circumscribed nodule whichis frequentlyunencapsulated.Compared toschwannoma, nuclear palisading is commonly focal, while Verocay bodies as well as hypocellularAntoni B areas are not commonly noted.[14]Likewise, lingual schwannomas can be well-differentiated from neurofibromas by histopathology. Thespindle cells of a neurofibromatous lesion are consistentlyfound throughout the growth,within a collagenous tomyxoid stroma. This appearance differs from the biphasic presenceof schwannomamade by the alternating densely cellularAntoni A tissue and pauci-cellular Antoni B tissue.

Surgery is frequently performed to remove schwannomas together with the affected source nerve.[16] Radiation treatment is ineffective for addressing schwannomas,[17] and partial surgical excision can lead to recurrence, albeit this is less likely following complete surgical excision.[18]Schwannomas present as encapsulated masses, and thus, it is simple to remove them completely. In our case, the excision of the schwannoma lesion has led to positive outcome, with no recurrence till date.

Conclusion:-

A differential diagnosis of schwannoma should be considered in case of a firm, painless lingual lesion. Though rare, the schwannoma lesion can grow over time to cause clinical symptoms which can hamper the quality of patient’s life. Histopathology assessment is extremely important for differential diagnosis of such lingual lesions. Complete surgical excision of the lesion is effective without recurrence.

References:-

1. Zachariades N. Schwannoma of the oral cavity. Review of the literature and report of a case. J Oral Med. 1984;39(1):41-3.
2. Harada H, Omura K, Maeda A. A massive pleomorphic adenoma of the submandibular salivary gland accompanied by neurilemomas of the neck misdiagnosed as a malignant tumor: report of case. J Oral Maxillofac Surg. 2001;59(8):931-5.

3. Batsakis JG, Sneige N. Parapharyngeal and retropharyngeal space diseases. Ann OtolRhinolLaryngol. 1989;98(4):320-1.
4. Nelson W, Chuprevich T, Galbraith D. Enlarging tongue mass. J Oral MaxillofacSurg 1988;56:224–7.
5. Cohen M, Wang MB. Schwannoma of the tongue: two case reports and review of the literature. Eur Arch Otorhinolaryngol. 2009;266(11):1823-9.
6. Hwang K, Kim SG, Ahn SI, Lee SI. Neurilemmoma of the tongue. J Craniofac Surg. 2005;16(5):859-61.
7. Agha-Hosseini F, Moosavi MS, Aminishakib P, Yousefian M. A fast-growing schwannoma of the tongue in a 15-year-old Iranian male: Review of literature and case report. Clin Case Rep. 2021;9:e04266.
8. Lira RB, GonçalvesFilho J, Carvalho GB, Pinto CA, Kowalski LP. Lingual schwannoma: case report and review of the literature. ActaOtorhinolaryngol Ital. 2013;33(2):137-40.
9. Kavčič J, Božič M. Schwannoma of the tongue. BMJ Case Rep. 2016;2016:bcr2016215799.
10. Lollar KW, Pollak N, Liess BD, Miick R, Zitsch RP. Schwannoma of the hard palate. Am J Otolaryngol. 2010;31:139-40.
11. Enoz M, Suoglu Y, Ilhan R. Lingual schwannoma. J Cancer Res Ther. 2006;2:76-8.
12. Viswanatha SC, Raghavan N. Schwannoma of oral tongue. Int J Otorhinolaryngol Head Neck Surg 2023;9:682-4.
13. Ying YL, Zimmer LA, Myers EN. Base of tongue schwannoma: a case report. Laryngoscope 2006;116:1284-7.
14. Koutlas IG, Scheithauer BW. Palisaded encapsulated ("solitary circumscribed") neuroma of the oral cavity: a review of 55 cases. Head Neck Pathol. 2010;4:15–26.
15. Chrysomali E, Papanicolaou SI, Dekker NP, Regezi JA. Benign neural tumors of the oral cavity: a comparative immunohistochemical study. Oral Surg Oral Med Oral Pathol Oral RadiolEndod. 1997;84:381–90.
16. Naik S, Goutham M, Ravishankara S, Appaji M. Sublingual schwannoma: a rare clinical entity reported in a hypothyroid female. Int J Head Neck Surg 2012;3:33–9.
17. Gallo W, Moss M, Shapiro D, Gaul J. Neurilemmoma: review of the literature and report of five cases. J Oral Surg 1977;35:235–6.
18. Al-Alawi YSM, Kolethekkat AA, Saparamadu P, Al Badaai Y. Sublingual Gland Schwannoma: A Rare Case at an Unusual Site. Oman Med J. 2014;29(2):e070.