CODEN [USA]: IAJPBB ISSN : 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

SJIF Impact Factor: 7.187
https://doi.org/10.5281/zenodo.7497668

Available online at: http://www.iajps.com *Research Article*

A COMMON PATHOLOGY IN AN UNCOMMON LOCATION: A CASE REPORT OF SCHWANNOMA OF THE TONGUE

Abdulrahman Ghazi Alosaimi [1,2] , Rula Jamal Naqi [2], Hasan Sulaiman Alansari [2], Sulaiman Awadh Althobaiti[1], Abdulrahman Faeq AlZamil [1,2], Waleed Mohammed Janahi [3]

[1]Ministry of Health Saudi Arabia

[2] Otorhinolaryngology, Head and Neck Surgery Department, king Hammad University Hospital, Bahrain

[3]Craniofacial Consultant, Otorhinolaryngology, Head and Neck Surgery Department, king Hammad University Hospital, Bahrain

Article Received: November 2022 **Accepted:** November 2022 **Published:** December 2022

Abstract:

A 16-year-old girl presented with a 4-year history of midline swelling in the tongue that is painless, slightly reddish, and associated with previous trauma with no associated symptoms. The patient underwent excision of the tongue lesion under general anesthesia. Final histopathology diagnosis of this benign spindle cell lesion was Schwannoma.

Corresponding author:

Abdulrahman Ghazi Alosaimi ,

abuughazi@gmail.com

QR code

Please cite this article in press Abdulrahman Ghazi Alosaimi et al, ***A Common Pathology In An Uncommon Location: A Case Report Of Schwannoma Of The Tongue..,*** *Indo Am. J. P. Sci, 2022; 09(12).*

INTRODUCTION:

Schwannoma or neurilemmoma is uncommon and well known in otolaryngology as a benign tumor that originates from the schwann cells of peripheral, cranial, and autonomous nerves, for example, as neuroma of the acoustic nerve. Schwannoma accounts for over 1% of all benign tumors found in the mouth and it can develop at any sex or age, most commonly 20 to 50 years [1].

Malignant transformation of the lesion is extremely rare, making complete surgical excision the treatment of choice [2]. Except for the neurofibromatosis type, which manifests as many lesions, it usually presents as a single encapsulated swelling [3]. Surgical removal of the tumor is the preferred treatment. If a schwannoma is entirely removed, it does not reoccur.

CASE REPORT:

A 16-year-old girl presented to the otolaryngology clinic at a tertiary care center with a 4-year history of swelling in the tongue. The swelling was in the midline of the tongue, slightly reddish in color, painless, and associated with a history of previous trauma to the tongue. The swelling did not increase in size and was not associated with active discharge. The patient can eat and drink normally and did not complain of any sort of discomfort or dysphonia. There was no previous history of similar lesions in the tongue, no history of swellings in any part of the body, and no history of café au lait spots. Moreover, there was no history of seizures or any vision changes. The past medical and surgical history was unremarkable.

Physical examination revealed a 1 x 1cm swelling in the midline on the ventral surface of the tongue (Figure 1). It was slightly reddish in color; round shaped, with a regular margin, smooth surface, and well-defined edges. The overlying mucosal lining was normal as well. On palpation, the swelling was firm in consistency, not associated with tenderness or fluctuation. The oral cavity was otherwise normal.

The patient underwent excision of the tongue lesion under general anesthesia (Figure.2). The tissue was sent for histopathologic review. Macroscopic examination showed a round, firm tissue bit 10 x 7 x 5 mm in dimension, weighing 0.25 g. The outer surface was yellow, smooth, and glistening, and the cut surface was homogenous tan- white with no areas of degeneration or necrosis (Figure.3). Microscopy revealed a partially encapsulated soft tissue spindle cell lesion with cellular fibrillary areas (Antoni A) and pauci-cellular areas (Antoni B) (Figure.4). Verocay bodies were also noted (Figure.5). The spindle cells had thin, elongated and wavy nuclei with tapered ends (Figure.6). Thick hyaline blood vessels were also present within the lesion. There was no apparent nuclear atypia, mitotic activity, or degenerative changes.

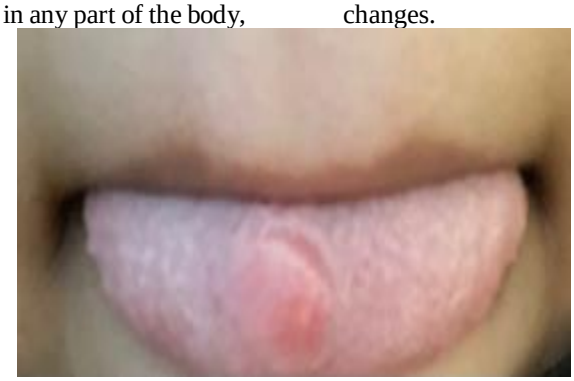

Figure.1 - Swelling was noticed in the midline ventral surface of the tongue.

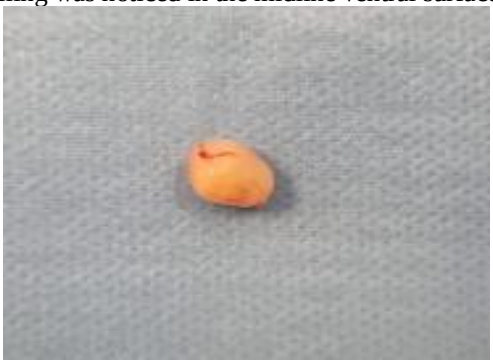

Figure.2 – The mass after being excised from the tongue. Looks pale yellowish, not vascularized. Hard in consistency.

Figure.3 – Another view of the mass after being excised from the tongue. The size approximately is 0.5cmX0.5cm.

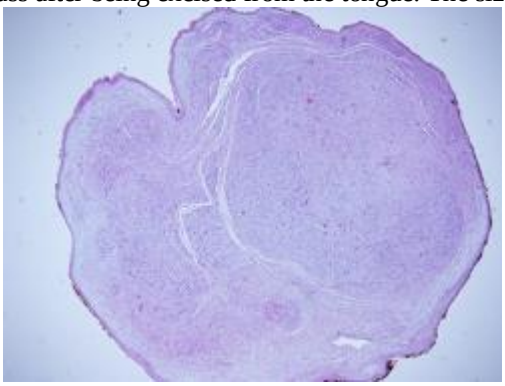

Figure.4 – Scanner view of the lesion (H&E, X20).

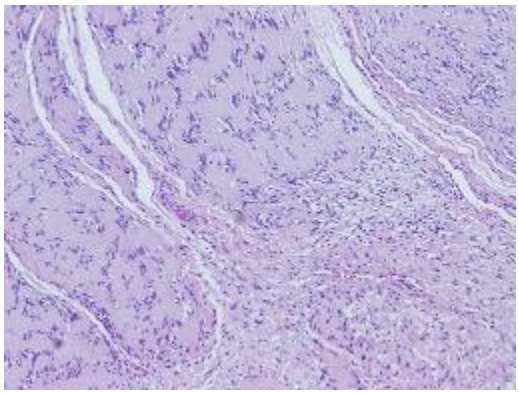

Figure.5 - Verocay bodies (Arrow) (H&E, X100)

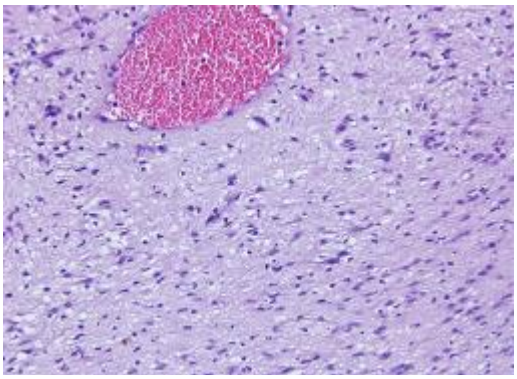

Figure.6 - Spindle cells with fibrillary background (H&E, X200)

Immunohistochemistry revealed that the cells were strongly immunopositive for S-100, and immunonegative for CD-34, desmin and Epithelial membrane antigen (EMA) (Figure.7).

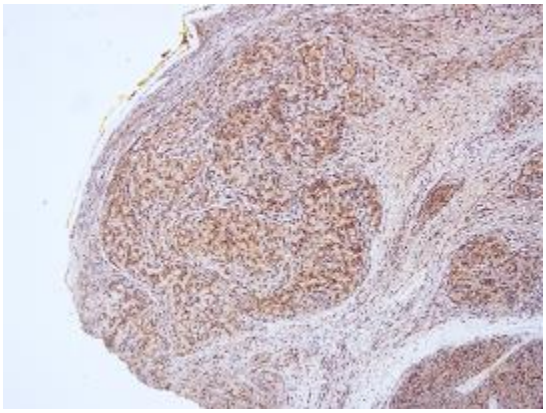

Figure.7 – Immunohistochemistry- S-100 diffuse positive – (X20)

Final histopathology diagnosis of this benign spindle cell lesion was Schwannoma.

Patient was seen post-operatively. She was doing well, with no active complaints. The wound over the tongue was completely healed. She was reassured regarding the benign nature of the excised mass.

DISCUSSION:

First described in 1908 schwannoma are benign nerve sheath neoplasms that can arise from central, peripheral autonomic nervous system schwan cells [4]. Schwannoma occurrence in the oral cavity is rare with the tongue being the most common location of an intra-oral schwannoma as seen in our patient followed then by the palate, buccal mucosa, lip and gingiva [5].

They usually present as painless, slow growing lumps and are usually asymptomatic, however it has been reported in some cases to cause symptoms of paraesthesia and difficulty in phonation due to its overgrown size and its mass effect on neighboring nerves. Other symptoms could include pain, loss of taste sensation and partial paralysis of the tongue [6]. Usually a solitary lesion but however if multifocal lesions are present neurofibromatosis type 1 or schwanamatosis should be ruled out [6-8]. Due to the small size and solitary nature of the lesion our patient had no major symptoms and had no negative impact on her quality of life.

Due to its rarity, an intra-oral schwannoma could be mistaken for other entities such as traumatic neuroma, leiomyoma, lipoma, neurofibroma and fibroma with histopathological biopsy diagnosis being the gold standard modality of establishing the diagnosis [6]. Clinical and radiological examination have a limited role establishing the diagnoses but could help in ruling out other pathologies and with delineating the size and extent of the tumor [6, 9].

Gold standard treatment is usually complete surgical excision of the lesion which prevents any chance of recurrence and allows for a proper histopathological diagnosis. The presence of sporadic patterns of Antoni A, Antoni B, nuclear palisading with verocay bodies often allow for a clear diagnosis but it could often be seen in other pathologies such as meningioma, leiomyoma, myofibroblastoma.

Schwannomas comes in five variants—common, epithelioid, cellular, plexiform and ancient schwannomas [8,10]. Immunohistochemical staining such as S-100 and vimentin would help in confirming its neural crest origin.[8] Our patient underwent patient underwent excision of the tongue lesion under general anesthesia, the histopathology review revealed finding of the typical schwannoma with partially encapsulated soft tissue spindle cell lesion, with cellular fibrillary areas (Antoni A) and pauci-cellular areas. Verocay bodies were also noted. The spindle cells had thin, elongated and wavy nuclei with tapered ends. Thick hyaline blood vessels were also present within the lesion. There was no apparent nuclear atypia, mitotic activity, or degenerative changes. Immunohistochemistry also revealed that it was strongly immunopositive to S-100. Chances for malignant transformation is rare in such cases [11]. Although risk of malignancy is very low, it should always be ruled out, by histopathology and immunochemistry, as done in this case [8]. Despite the facts that recurrence is rare, patients should be followed up for a period of time after the resection [12].

CONCLUSION:

This is a case report of a rare tumor type, a lingual schwannoma that is benign and presents with history of trauma and was treated by transoral resection of the mass.

Compliance with ethical standards

The case report is meeting ethical standards and is approved by King Hamad University Hospital-Bahrain ethical committee

Funding

No funding was received to assist with the preparation of this manuscript

Conflict of interest

There is no conflict of interest

Ethical Approval

Case report approved by the ethical committee of King Hamad Hospital-Bahrain University

Informed consent in the manuscript

The consent form was taken from the patient

REFERENCES:

1- Gallesio C, Berrone S. Schwannoma a localizzazione linguale. Presentazione di un caso clinico [Schwannoma located in the tongue. A clinical case report]. Minerva Stomatol. 1992 Dec;41(12):583-90. Italian. PMID: 1301493

2- Ramkumar S, Narasimhan M, Azariah Dhiravia Sargunam E. Intraoral neurinoma of the lingual nerve: An uncommon tumor in floor of the mouth. Case Reports in Dentistry. 2014 Jan 30;2014 doi.org/10.1155/2014/385068

3- Rayamajhi P, Parajuli R. Schwannoma of the floor of the mouth. Nepalese Journal of ENT Head and Neck Surgery. 2011;2(2):21-2. doi.org/10.3126/njenthns.v2i2.6800

4- Enzinger FM, Weiss SW. Benign tumors of peripheral nerves. In: Enzinger FM, Weiss SW, editors. Soft tissue tumors. 4th ed. Mosby: St. Louis; 1995. p. 821–88.

5- Robert P, Dale AB, Augusto P, Joseph H. Schwannoma of the tongue: report of 2 cases. J Oral Maxillofac Surg 2001;59: 802–4. DOI: 10.1053/joms.2001.24298

6- Bansal R, Trivedi P, Patel S. Schwannoma of the tongue. Oral Oncology Extra. 2005 Feb 1;41(2):15-7. DOI: 10.1016/j.ooe.2004.09.003

7- Rahpeyma A, Jafarian AH, Ahmadi SK, Sarabadani J. A schwannoma of the soft palate in a child: histological and immunohistochemical features and surgical method. Iranian journal of otorhinolaryngology. 2012;24(67):95.

8- Dokania V, Rajguru A, Mayashankar V, Mukherjee I, Jaipuria B, Shere D. Palatal schwannoma: an analysis of 45 literature reports and of an illustrative case. International Archives of Otorhinolaryngology. 2019 Oct 7;23:360-70. DOI: 10.1055/s-0039-1692635

9- Alhedaithy AA, Alsayed AM, Al-Sindi KA, Janahi WM. Schwannoma originating in the soft palate: A case report. International Journal of Surgery Case Reports. 2021 Jul 1;84:106108. DOI: 10.1016/j.ijscr.2021.106108

10- Rodriguez FJ, Folpe AL, Giannini C, Perry A. Pathology of peripheral nerve sheath tumors: diagnostic overview and update on selected diagnostic problems. Acta neuropathologica. 2012 Mar;123(3):295-319. DOI: 10.1007/s00401-012-0954-z

11- Kun Z, Qi DY, Zhang KH. A comparison between the clinical behavior of neurilemmomas in the neck and oral and maxillofacial region. Journal of oral and maxillofacial surgery: official journal of the American Association of Oral and Maxillofacial Surgeons. 1993 Jul 1;51(7):769-71.

12- Abreu I, Roriz D, Rodrigues P, Moreira Â, Marques C, Alves FC. Schwannoma of the tongue-A common tumour in a rare location: A case report. Eur J Radiol Open. 2017 Feb 1;4:1-3. DOI: 10.1016/j.ejro.2017.01.002.