Case Report

DOI: 10.17354/ijss/2015/291

Schwannoma of Tongue: A Rare Case Presentation with Review of Literature

Sarita Nibhoria[1], Kanwardeep Kaur Tiwana[1], Richa Phutela[2], Jagpreet Kaur[2]

[1]Associate Professor, Department of Pathology, Guru Gobind Singh Medical College and Hospital, Faridkot, Punjab, India, [2]Postgraduate Student, Department of Pathology, Guru Gobind Singh Medical College and Hospital, Faridkot, Punjab, India

Abstract

Schwannomas, also known as neurilemmomas are uncommon neoplasms, derived from Schwann cells. They are benign, encapsulated, slow-growing, and usually solitary tumors. Approximately 25-48% of cases are seen in the head and neck region, of which 1% occurs in an oral cavity. These neoplasms, although rare, should be considered in the differential diagnosis of slow-growing masses of an oral cavity. Lingual schwannomas can develop at any age and with no gender predilection. Lingual schwannomas generally present as a painless lump and can affect all age groups with the peak incidence between the third and sixth decade. The growth of these tumors sometimes causes displacement and compression of the nerve of the origin, giving rise to clinical signs and symptoms. We report a rare case of schwannoma of the tongue in an 18-year-old female complaining of asymptomatic swelling over a posterolateral surface of the tongue, treated by complete surgical excision. The diagnosis was established on the basis of clinical, histopathological, and immunohistochemical examination.

Key words: India, Lingual, Schwannoma

INTRODUCTION

Schwannoma is a benign encapsulated tumor of Schwann cells present in nerve sheath.[1] It is usually a solitary tumor with an unknown etiology. It is also named as neurilemmoma, neurinoma, and Schwann cell tumor.[2] The most common site of origin is in the head and neck region.[3] However, they are quite rare in the oral cavity, accounting just over 1% of benign tumors.[4] In the oral cavity tongue is the most common location followed by palate, floor of mouth, buccal mucosa, and mandible.[5] This tumor may present itself at any age, but is more frequent between second and fourth decade of life, with no predilection for gender or race. The goal for treatment is complete excision, which results in low rates of recurrence.

CASE REPORT

We present an 18-year-old female who presented with an asymptomatic slow-growing painless mass on the right posterolateral tongue for several years. Examination revealed a well-circumscribed, non-tender, non-compressible, non-reducible, non-fluctuant palpable mass involving the lateral tongue on right side measuring 1.5 cm in size (Figure 1). Adjacent oral mucosa revealed no abnormalities. Tongue mobility was normal. Simple gustatory testing to sweet, sour, and salt yielded normal results. No difficulty in chewing, swallowing, and phonation. No cervical lymphadenopathy was evident. The clinical differential diagnosis included benign tumors such as fibroma, lipoma, and neurofibroma.

Figure 1: Slow growing painless mass measuring 1.5×1.5cm on right posterolateral surface of tongue

Access this article online

www.ijss-sn.com

Month of Submission : 04-2015
Month of Peer Review : 05-2015
Month of Acceptance : 05-2015
Month of Publishing : 06-2015

Corresponding Author: Richa Phutela, BV, 1283, Street Number 1, Chowk Number 4, Jain Nagar, Abohar, Punjab, India. Phone: +91-9988442680. E-mail: drricha31@gmail.com

Fine-needle aspiration (FNAC) was inconclusive. The patient underwent complete surgical excision and tissue was sent for histopathological examination.

On gross examination, one gray-white encapsulated soft tissue mass measuring 1.5 cm × 1.5 cm × 1 cm, cut surface was gray-white. Microscopic examination revealed well-circumscribed neoplasm (Figure 2) composed of spindle-shaped cells arranged in fascicles and palisading sheets (Figure 3). Both cellular and hypocellular areas (antoni A and antoni B) were seen with a predominance of cellular areas (Figure 4). Immunohistochemistry was applied and showed diffuse positivity for S-100 protein in (Figure 5). On the basis of routine hematoxylin and eosin staining along with immunohistochemical evaluation, the diagnosis of schwannoma was confirmed. Lack of necrosis, hyperchromatism, and atypical features helped in differentiating from other spindle cell tumors.

DISCUSSION

Schwannomas is slow-growing neoplasm, which may be located anywhere in peripheral nervous system. It most commonly arises from peripheral nerves in the head and neck region and extensor aspects of extremities.[3] Schwannoma accounts for just over 1% of benign tumors reported in an oral cavity. It can occur at any age although when present in the oral cavity it tends to occur more often in adults than in children. They are typically slow-growing, solitary tumors.[6] The preoperative diagnosis is quite difficult because this is an infrequent tumor and is not usually suspected in the oral cavity.[7] Histopathological evaluations is the key to diagnosis of this tumor as FNAC gives negative results on microscopy.[5] Microscopic examination reveals well-circumscribed neoplasm composed of spindle-shaped cells arranged in fascicles and palisading sheets. Both cellular and hypocellular areas (Antoni A and Antoni B) are seen with a predominance of cellular

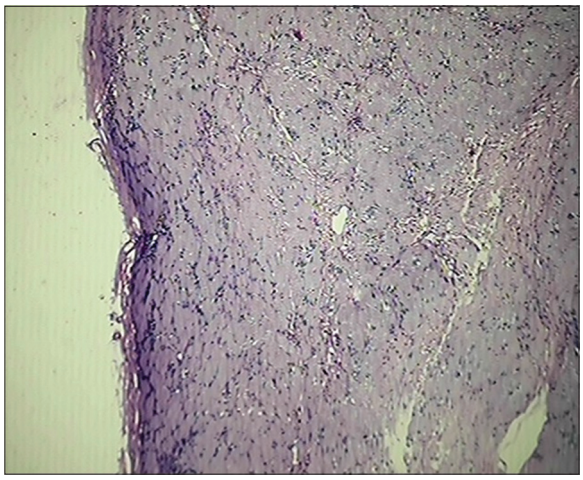

Figure 2: High power view of capsule (Palisading pattern and verocay bodies).

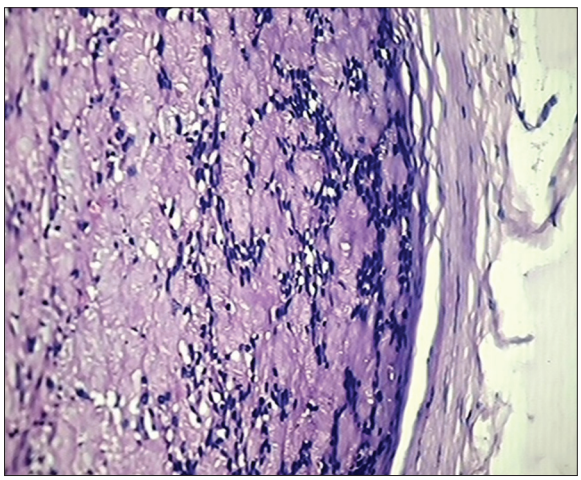

Figure 3: Encapsulated Tumor

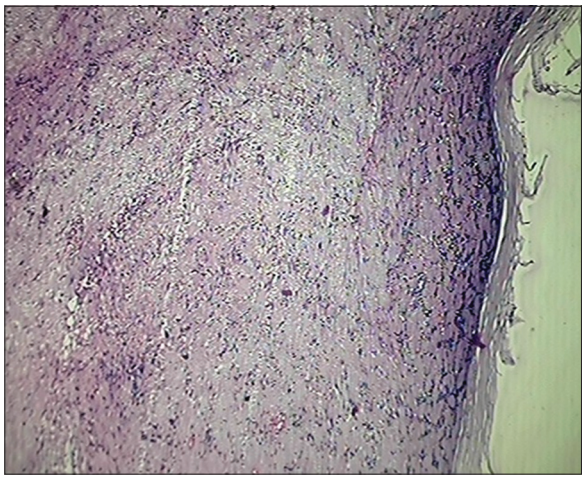

Figure 4: View of Antoni A (more cellular) and Antoni B (more myxoid) components

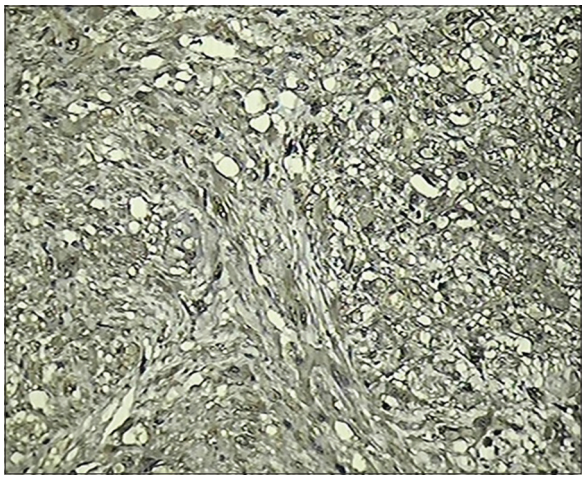

Figure 5: Immunohistochemical staining of tumor cells revealed diffuse, strongly positive staining for S-100 protein

areas. Immunohistochemistry shows diffuse positivity for S-100 protein. On the basis of routine hematoxylin and eosin staining along with immunohistochemical evaluation, the diagnosis of schwannoma is confirmed. Lack of necrosis, hyperchromatism, and atypical features helps in differentiating from other spindle cell tumors.

CONCLUSION

Schwannoma of the tongue is a relatively rare tumor of head and neck and is often not taken into account during clinical practice or even considered as a possible diagnosis. Given the rarity of the lesion, a careful consideration is warranted as it is indistinguishable from other benign neoplasms. The final diagnosis should be done after histopathological examination and in some cases after immunohistochemistry analysis. Schwannomas are managed by complete surgical excision and reoccurrence is rare. Malignant transformation of schwannoma is an exceptionally rare event and can be safely disregarded.

REFERENCES

1. Zachariades N. Schwannoma of the oral cavity. Review of the literature and report of a case. J Oral Med 1984;39:41-3.
2. Artzi Z, Taicher S, Nass D. Neurilemmoma of the mental nerve. J Oral Maxillofac Surg 1991;49:196-200.
3. Williams HK, Cannell H, Silvester K, Williams DM. Neurilemmoma of the head and neck. Br J Oral Maxillofac Surg 1993;31:32-5.
4. Anil HT, Gowda BV, Lakshmi S, Niveditha SR. Schwannoma of the palatine tonsil. J Laryngol Otol 2005;119:570-2.
5. Pfeifle R, Baur DA, Paulino A, Helman J. Schwannoma of the tongue: Report of 2 cases. J Oral Maxillofac Surg 2001;59:802-4.
6. Ching YC, Wen CW, Chung HC, Yuk KC, Li ML. Ancient schwannoma of the mouth floor – A case report and review. Oral Oncol Extra 2006;42:281-5.
7. Ebru T, Sukram V, Deniz C, Kemal T, Okan G. Extracranial Head and neck schwannomas. Internet journal of Head and Neck Surgery 2007;2:1.

How to cite this article: Nibhoria S, Tiwana KK, Phutela R, Kaur J. Schwannoma of Tongue: A Rare Case Presentation with Review of Literature. Int J Sci Stud 2015;3(3):147-149.

Source of Support: Nil, **Conflict of Interest:** None declared.