Case Report

NEURILEMMOMA OF THE TONGUE- A CASE REPORT

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Abstract:

Neurilemmoma is a benign, slow growing, usually solitary and encapsulated tumor, originating from Schwann cells of the nerve sheath. It is otherwise known as schwannoma. The occurrence of neurilemmoma in oral cavity is relatively rare. Although they may arise at any age, the peak incidence is between the third and sixth decades, without any gender predilection. We present here a case of neurilemmoma on the ventral surface of the tongue in a 14-year-old male patient.

Key words- Neurilemmoma, Schwannoma, tongue, mass.

Introduction:

Neurilemmomas or schwannomas are benign, slow growing, usually solitary and encapsulated tumor, originating from schwann cells of the nerve sheath.¹ First, it was identified by Virchow in 1908.¹ Approximately 25 to 40% of all neurilemmomas are seen in the head and neck region of which intra oral neurilemmomas accounts for 1%.² These tumors can arise from any nerve covered with a schwann cell sheath, which include the cranial nerves (except for the optic and olfactory), the spinal nerves, and the autonomic nervous system.³ In this paper we report a case of neurilemmoma in a young male patient who presented with a firm mass on the ventral surface of the tongue.

Case Report:

A 14-year-old male patient reported to the Department of Oral medicine and Radiology, Rajah Muthiah Dental College and Hospital with a chief complaint of painless swelling in the ventral surface of tongue for past 7 years. Patient stated that the onset of swelling was gradual and since then it retained its size and shape without any progression or regression. His medical, dental and family histories were non-contributory. General examination showed that his vital signs were within normal range.

Intra oral examination revealed a single well defined swelling measuring 1x2cm, roughly oval in shape on the ventral surface near the tip of the tongue. Swelling extended anteriorly to the tip of the tongue, posteriorly 3cm short of lingual frenum and medio-laterally it was almost on the midline with major part of the swelling situated on left side of ventral surface. Mucosa over the swelling was of similar colour to the surrounding areas. No secondary changes were evident. Pulsations were not visible or felt. The swelling was firm in consistency, freely
mobile and non tender. Surface of the swelling was smooth without any lobulations.

Considering the asymptomatic firm mass on the ventral surface of the tongue with 7 years duration, a provisional diagnosis of irritation fibroma was made. However, differential diagnoses like benign minor salivary gland tumor, schwannoma, leiomyoma, rhabdomyoma and lipoma were also considered.

Ultrasonography revealed a well encapsulated lesion roughly oval in shape measuring 0.8x0.9cm at the ventral surface of tongue. The lesion was hypoechoic with no calcification and post acoustic enhancement. Colour Doppler failed to elicit any vascularity within the lesion.

Routine laboratory investigations were carried out and found to be within normal limits. Excisional biopsy was performed under local anesthesia. Specimen was submitted for histopathological examination. The gross specimen consisted of an encapsulated mass of yellowish white tissue which had a smooth shiny surface. Hematoxylin and eosin sections showed a single bit of tissue made up of interlacing bundles of spindle cells with hyperchromatic spindle nuclei and indistinct cytoplasm resembling Schwann cells. Antoni type B were predominant with few focal antoni type A areas showing nuclear palisading. Few verrucoy bodies were also seen throughout the section. The periphery exhibited a thick well formed capsule. These features were suggestive of neurilemmoma. Thus a final diagnosis of neurilemmoma was made. The patient was reviewed and healing was uneventful.

Discussion:

Neurilemmoma usually present as a solitary lesion. Nevertheless, multiple lesions are reported when they are associated with neurofibromatosis. Two types of neurilemmomas are distinguished: central and peripheral schwannoma, located in bone and soft tissues respectively. Although they may arise at any age, the peak incidence is between the third and sixth decades, without any gender predilection.

The exact aetiology of this disease is still obscure. However, it is believed to originate from a proliferation of Schwann cells in the perineurium causing displacement and compression of the adjacent nerve. Among the central lesions, the mandible is the most favoured site of occurrence compared to the maxilla. In intraoral soft tissues, base of the tongue is the most common site.

Most cases of neurilemmoma starts as a well defined encapsulated nodule and grows slowly. Even though most cases are asymptomatic, some cases exhibits clinical symptomatology depending on the nerve of origin and location. Other symptoms include dyspnea and dysphagia depending on the location of tumor. If it invades submucosal areas, it leads to pain and discomfort. Clinically, two forms of oral schwannoma can occur: the most frequent is the nodular encapsulated type in which the tumor is surrounded by dense fibrous connective tissue; the other is pedunculated variant, resembling a fibroma. Malignant transformation is reported in 8-10% of the cases.

As diagnostic tools, ultrasonography, computed tomography and magnetic resonance imaging may be helpful for estimation of tumor margins as well as infiltration of surrounding structures. Histopathologically, the tumor tissue consists of Antoni A and B type cells. Type A zone shows densely packed, elongated spindle cells, while type B zone has a more myxoid consistency. In addition, haemorrhage from adjacent tissue, necrosis, hyalinization and cystic degeneration, may also be seen. Antoni A zone has parallely formed thin reticulin fibres, fusiform shaped cells and curled nucleus. In general, the zone includes a variety of different cells without apparent borders, amongst
their cytosols. Among the sheats, there are acellular eosinophilic bodies called as verocay bodies, formed by thin cytoplasmic fibres.1

The treatment of choice is surgical removal by transoral method.5 The encapsulated form can be enucleated easily, whereas the nonencapsulated requires normal tissue margins to avoid relapse. If the nerve of origin is visualized, an attempt should be made to separate it carefully to preserve function.2

Conclusion:

This case report stresses the importance of adding neurilemmoma in the differential diagnosis of painless nodules in head and neck must. It is likely that nerve sheath neoplasms are more common than previously reported as many of them might have been overlooked as inflammatory hyperplasia. Prognosis is good as the tumor is benign, and recurrence is nearly unknown, so it is possible and indeed recommended to preserve nerve integrity with careful dissection.

References:


Legends:

Fig 1 Nodular swelling on the ventral surface of the tongue.

Fig2 Ultrasonography showing a well encapsulated, hypoechoic mass.

Fig3 A gross specimen consisting of an encapsulated mass of yellowish white tissue with a smooth shiny surface.

Fig 4 Photomicrograph with Antoni type A and Antoni type B cells with few verrucy bodies.