



A Rare case of sublingual schwannoma

BENNY P B

Department of General Surgery, TIRUNELVELI MEDICAL COLLEGE

Abstract : Introduction Schwannoma is a benign neural tumour derived from spindle shaped Schwann cell. Extracranially 25 of schwannoma arises in head and neck but only less than 1 occur in oral cavity. Oral floor schwannoma is extremely rare. Case report 36yr old female patient came to our OPD with complaints of swelling in the mouth for 6 years. The swelling initially was small in size which gradually increased to attain the present size. There was no pain, any speech disturbance, any difficulty in deglutition or any disturbance in taste sensation. On examination there was a swelling of size 5X3 cm in the floor of the mouth left side which was ovoid in shape, firm in consistency. CT showed isodense lesion on the left sublingual region. FNAC was inconclusive. Surgical excision was done. HPE showed schwannoma with cystic degeneration. In summary we report a case of Schwannoma of sublingual region, a rare clinical entity.

Keyword : sublingual schwannoma, surgical excision

Case Report

36yr old Murugammal came to our OPD with complaints of swelling in the mouth for 6 years. The swelling initially was small gradually increased to attain the present size. No history of pain, speech disturbance, difficulty in deglutition or disturbance in taste sensation. There was no history of trauma local infection or systemic illness. Family and medical history was non-contributory. On examination there was a swelling of size 5X3cm in the floor of the mouth left side ovoid in shape and smooth surfaced extending up to the posterior 1/3rd of the tongue (fig 1). Firm in consistency. Not mobile. Laboratory investigations were non-contributory. Fine Needle Aspiration Cytology showed haemorrhagic aspirate. Computed tomographic scan showed isodense lesion in the floor of the mouth (fig2). Intra oral excision was done (fig3-5). An encapsulated soft tissue mass of size 5X4X3cm was excised and sent for histopathological examination. Histopathological examination revealed a well circumscribed tumour composed of alternating bands of hyper cellular and hypo cellular areas. The hyper cellular areas composed of compact spindle cells having twisted nuclei and

Indistinct cytoplasmic borders arranged in bundles and interlacing fascicles with features of nuclear palisading and hypocellular area is composed of scattered Schwann cells admixed with irregular spaced hyalinised blood vessels and microcystic changes in an edematous stroma. The report was consistent with schwannoma with cystic degeneration (fig6). Immunohistochemistry showed strong positivity to S-100. The wound was primarily sutured which healed. The post-operative days were uneventful (fig7).



Fig 1 .Pre operative picture



Fig 2. Computed Tomography of oral floor



Fig3. Intra operative picture



Fig 4. Excised specimen



Fig 5. Cut section

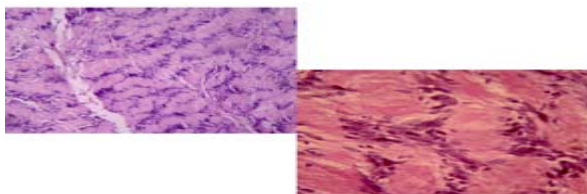


Fig 6. Histopathological examination



Fig 7. Post operative picture

Discussion

Schwannoma is a benign tumor derived from schwann cells around the peripheral nerves, cranial nerves and autonomic nerves⁴. It generally develops in the sensory nerves but rarely affects motor nerves. The most frequent site being head and neck mainly intracranial. Extra cranial schwannomas are rare. The most commonly affected region in the head and neck is the eighth cranial nerve. Other observed sites include scalp, face, oral cavity, pharynx, larynx, trachea, parotid gland, middle ear and external auditory meatus. In oral cavity tongue is most commonly affected. Floor of mouth is rarely affected. No sex predilection is reported. Soft tissue or bone may be the site of origin of intra oral schwannoma. Those in soft tissue appears as a smooth submucosal swelling, thus resembling other lesions like mucocoele, fibroepithelial polyp, fibroma, lipoma and benign salivary gland tumors. Clinically 2 different types of schwannoma are seen. The most common type being encapsulated sub mucosal variety which is well defined, firm in consistency and thus resembles a cyst. The second is a rare variety which is non-encapsulated lying below the layer of mucosal membrane. Macroscopically all schwannomas appear as single well circumscribed, circular type of encapsulated mass with smooth margins. Microscopically two types of tissue coexists. Antoni A and Antoni B type tissue. In Antoni A type tissue there is interwoven

bundles of long bipolar spindle cell with high density organised in palisaded swirls and waves. Antoni B type, the interstitium is edematous and the cells are sparsely distributed in a light fibrillar matrix. The palisading nuclei are arranged in rows surrounding a central acellular eosinophilic zone known as Verocay bodies. Sometimes tumor shows cystic degeneration with fluid levels which is usually unclotted blood due to the haemorrhage into the tumor or protein rich exudate due to necrosis. The Schwann cells show high positivity to S-100 which forms a diagnostic tool. CT scan features of schwannoma in the oral cavity are not specific and it cannot be distinguished confidently from other tumors in this region. Both CT and MRI usually show a broad necrotic center with a well circumscribed tumor with capsular contrast enhancement. Numerous diseases come in differential diagnosis of swelling in the floor of the mouth such as arising from sublingual gland, mylohyoid nerve⁷, hypoglossal nerve⁸ and lingual nerve. In our patient there was no neurological deficit in the form of difficulty in speech, deglutition or weakness in the oral diaphragm (mylohyoid muscle). Identification of the originating nerve may be difficult as in the present case. In more than 50% of intraoral lesions, it is not possible to differentiate between tumors arising from the lingual, hypoglossal and glossopharyngeal nerves⁵. The prognosis of schwannoma is quite favourable. Recurrence and malignant transformations were not reported in any of the reported schwannoma. Schwannoma generally requires a complete surgical excision^{1, 9, 11}

Conclusion

Schwannoma is a benign neural tumour of ectodermal origin derived from spindle shaped Schwann cells or nerve fiber sheath cells. Schwannomas may arise anywhere in the body but they have an affinity for the head and neck region and extremities. Most of the intra oral schwannomas are managed by complete surgical excision and recurrence is not reported. Malignant transformation is not seen in any of intraoral schwannomas but definite preoperative diagnosis is necessary to avoid wide excision when the tumors can be easily enucleated without recurrence^{1,9,11}

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