

SCHWANNOMA OF SUBMANDIBULAR REGION EXTENDING INTO ORAL CAVITY – A CYTO HISTO CORRELATION

S.Srikanth, M.M.Kashif and R.Suhela

Assistant Professor, Department of Pathology, Prathima Institute of Medical Sciences, Karimnagar, Telangana, India.

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ABSTRACT

Schwannoma is a relatively uncommon, slow-growing benign tumor that is derived apparently from the Schwann cells. It can present itself at any age and there is no sex predilection. Usually, this lesion is not taken into account during clinical practice and the differential diagnosis includes numerous benign neoformations based on epithelial and connective tissues. Immunohistochemical features can be useful in determining the neural differentiation. Anti-S100 protein is probably the most used antibody to identify this lesion. The schwannoma is usually a solitary lesion, and can be multiple when associated with neurofibromatosis.

INTRODUCTION

Schwannoma are usually a solitary, slow growing benign neoplasm and well encapsulated soft tissue or intrabony lesions deriving from neural crest cells [1,2]. Schwannoma can arise from any cranial, peripheral, or autonomic nerves that contain Schwann cells, the sheath cells that cover myelinated nerve fibers [3]. Schwannoma was first reported by Verocay in 1910, called this benign neurogenic tumor as neurinoma. This tumour is often associated with the nerve sheath and adjacent to the parental nerve but extrinsic to the nerve fascicles. Approximately 25% to 45% of the schwannoma are seen in the head and neck region and are found rarely in the oral cavity (only 1%). Schwannoma of the head and neck region, including the oral and maxillofacial region are rare. Here we present a case of Schwannoma originating in right submandibular region extending into oral cavity which is a rare presentation.

CASE REPORT

A 38 years female patient came to Surgery department with complaints of swelling in the right submandibular region since two years.

Corresponding Author

S.Srikanth

Email: - drshastryri@yahoo.com

The swelling was painless, globular of size 7x5cm, firm in consistency and extending into the oral cavity (Figure 1). Surgeons initially made a provisional diagnosis of Non Hodgkins Lymphoma or Salivary gland tumour. Fine Needle Aspiration Cytology (FNAC) was done using 10ml syringe with 23 gauge needle from both submandibular and intra oral swellings and aspirated hemorrhagic material. Smears show mainly spindle to elongated cells arranged in sheets and in fascicles in a hemorrhagic background and we diagnosed it as spindle cell lesion (Figure 2). Surgery was done and the tumour was excised and we received multiple capsulated grey white soft tissue masses with focal yellowish areas, largest one of size 6x4 cm, firm, cut section showed grey white and pearly white areas (Figure 3). Histopathologically showed mainly spindle to elongated cells with wavy and tapering nuclei arranged in sheets and in whorls with hypercellular (Antoni A) and hypocellular areas (Antoni B) along with Verocay body formation and we diagnosed, it as Schwannoma of right submandibular region extending into oral cavity.

DISCUSSION AND CONCLUSION

The schwannoma is also called as neurilemmoma, neurinoma, perineural fibroblastoma and is a solitary, slow growing, usually encapsulated, generally a symptomatic neural tumour. It can present at any age,



however it is more common between the second and third decade of life. The tumour is derived from the Schwann cell sheath, which enlarges, expands and causes displacement and compression of the nerve of origin [1].

The extracranial schwannoma occurs in the head and neck region. The oral schwannomas usually present in the soft tissue, more commonly the tongue, followed by palate, buccal mucosa and may have similar clinical features to other benign lesions like mucocele, fibromas, lipomas and benign salivary gland tumours [1,4].

Most of the cases are asymptomatic and many of them have a long duration and large size because of their lack of symptoms [5]. The presence of pain, dysphagia or neurological alteration by the compression of the peripheral nerves, can be observed in large sized tumors but also depends on the anatomy of the affected area [5].

The clinical differential diagnosis could be with any other benign neural tumoral lesion such as fibroma, lipoma, neurofibroma, salivary gland tumor. However the histological differential diagnosis is other neural origin lesions, which could be neurofibrom and neuroma, or muscular or fibroblastic origin tumour.

Local excision is the treatment of choice. The non-encapsulated form requires a margin of normal tissue and careful separation from the involved nerve is also necessary to preserve normal function. Recurrence is rare. An immunohistochemical examination of the tumor may show positive results with S100 antigen. Malignant transformation of a benign schwannoma is rare. In the present case connection with the nerve could not be seen, the mass was well encapsulated and could be totally excised.

To conclude Schwannoma present as slow growing painless swelling in the oral cavity or head and neck region not often encountered in clinical practice. This submucosal lesion must be differentiated from other benign lesions that also appear in the same regions. The final diagnosis can only be done after histopathological examination of the lesion. Prognosis of Schwannoma is good and recurrence is unknown.

We present this case to highlight the role of FNAC in diagnosing the tumours and to consider Schwannoma as a differential diagnosis in oral swellings which is a rare location.

Figure 1. Swelling in the right submandibular region (Fig a), swelling extending into oral cavity (Fig b).



Figure 2. Cytology smears showing spindle to elongated cells with wavy nuclei arranged in fascicles and in whorls diagnosed as spindle cell lesion (Fig a.H&E x10, Fig b.H&E x40).

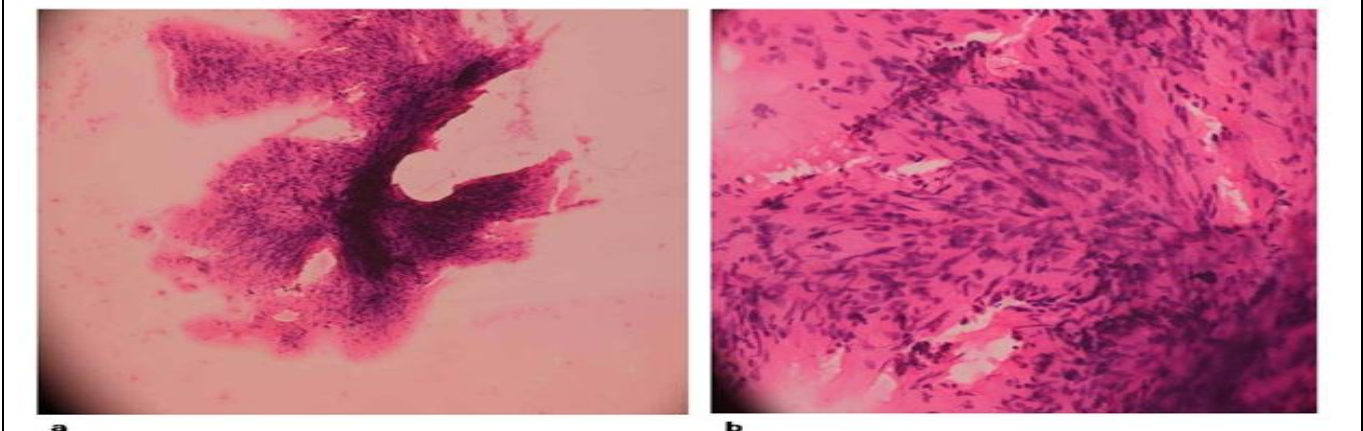


Figure 3(a). Gross showing multiple globular capsulated soft tissue masses, Figure 3(b). Cut section showing grey white areas.

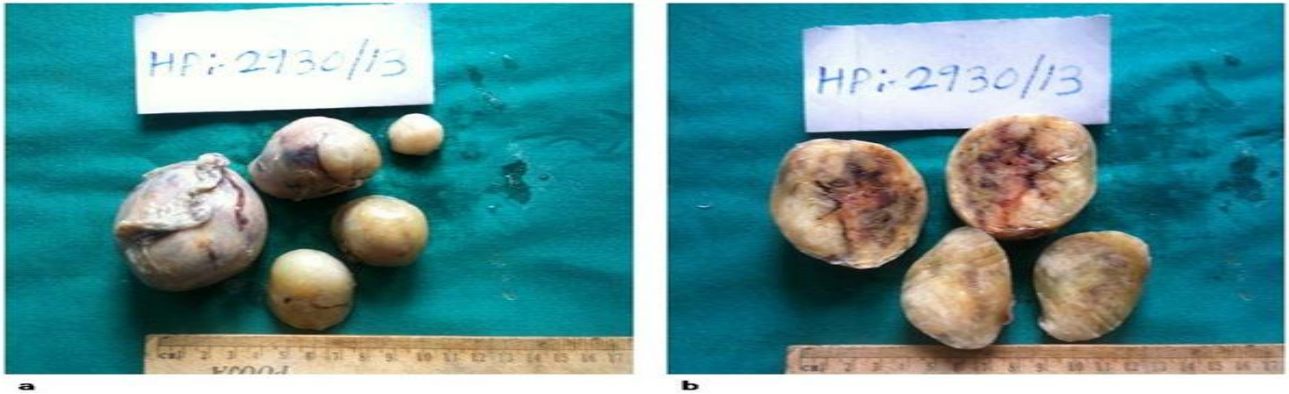
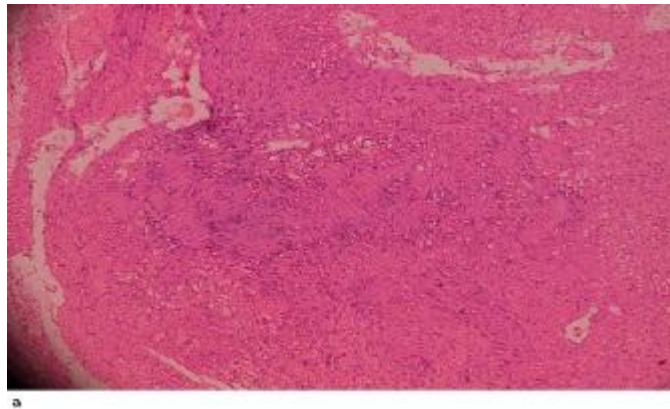


Figure 4. Section showing spindle to elongated cells arranged in whorls with Antoni A & Antoni B pattern along with Verocay bodies (H&E x40).



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