

Pedunculated oropharyngeal schwannoma arising from posterior tonsillar pillar

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Abstract

Schwannoma are benign tumours which arise from Schwann cells. Most commonly occur in the paralaryngeal space in the neck. Pedunculated oropharyngeal schwannoma are very rare and to the best of our knowledge only 5 cases of pedunculated oropharyngeal tumours have reported in literature.

We present 52 year old male with pedunculated oropharyngeal schwannoma which was arising from superior part of posterior tonsillar pillar. This site of origin for a pedunculated schwannoma has never been reported before.

Key Words: *Oropharynx, schwannoma, posterior tonsillar pillar, pedunculated, verocay bodies*

Introduction

The Schwannoma also known as neurilemmoma or perineural fibroblastoma is a rare benign neural tumor arising from the neural sheath Schwann cells of the peripheral, cranial (except the optic and olfactory nerves) or the autonomic nerves. [1] The etiology is unknown but it is postulated that the lesion arises by proliferation of the Schwann cells at one point inside the perineurium. About 10%-40% of extra cranial schwannomas were not identified with the nerve origin. [2, 3] Approximately 25-45% of all Schwannomas occur in the head and neck. Of these

approximately 1-12% occurs intra orally. [4, 5]

We report here a case 52 year male having pedunculated oropharyngeal schwannoma arising from superior part of the posterior tonsillar pillar. After a thorough literature research, we found only 5 cases of pedunculated oropharyngeal schwannoma. This is the first case of schwannoma arising from posterior tonsillar pillar.

Case report

A 52 year old male presented to our OPD with one year history of dysphagia and

change in voice. Dysphagia was more for solids than liquids associated with recent history of nasal regurgitation of food since 5 months. On examination a pedunculated globular mass was seen in oropharynx. The mass could be probed all around except left superior quadrant. Attachment of the stalk was traced to left posterior pillar superiorly. (Fig.1) The surface was smooth and regular and did not bleed on touch. Findings were confirmed on 70° videolaryngoscopy. Bilateral vocal cords were mobile.



Fig. 1 Mass arising from superior part of posterior tonsillar pillar

A CT-PNS with contrast showed a heterogeneously mildly enhancing soft tissue mass measuring 3.6 cm x 2.7 cm x 4cm in oropharynx with well preserved fat planes in relation to adjacent structures. (Fig.2)

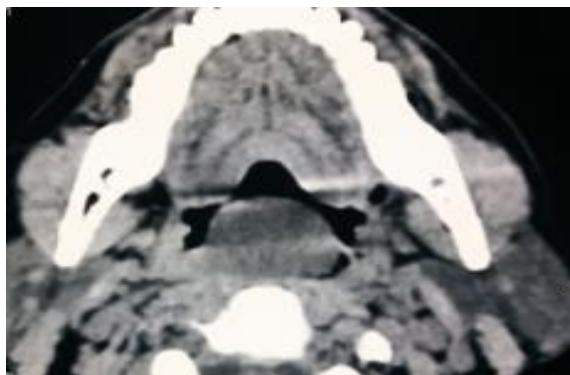


Fig. 2a

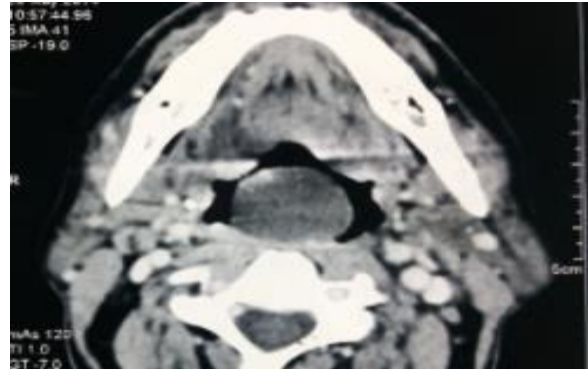


Fig. 2b CT showing homogenous regular soft tissue swelling in oropharynx, slightly enhancing on contrast

Patient was taken under general anaesthesia. Adequate exposure was achieved with Boyle –Davis mouth gag and the base of the stalk was cauterised. (Fig.3, 4) Post –op was uneventful. On first follow up visit patient was relieved of dysphagia.

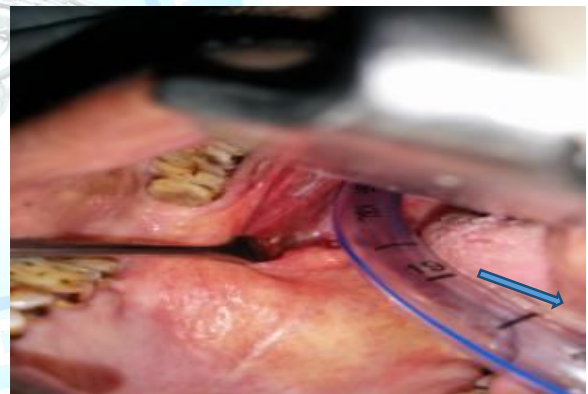


Fig.3 Cauterized base of pedunculated oropharyngeal mass



Fig 4. Specimen- a smooth spherical firm mass with pedicle attached to tonsillar pillar

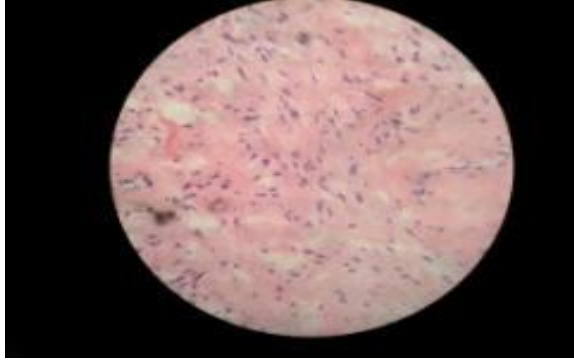


Fig. 5 Microscopic picture of schwannoma showing Verocay bodies and Antoni A cells (10x in haematoxylin and eosin stain)

Histology showed benign spindle cells of neurogenic origin. Spindle cells had bland morphology and surrounded by myxoid matrix. Hypocellular & hypercellular (Antoni A and Antoni B) areas were seen, suggestive of Schwannoma of oropharynx. Lesion was partially covered with benign squamous epithelium. (Fig.5)

Discussion

Schwannomas are benign encapsulated tumours which arise from schwann cells. These tumours were first described by Verocay in 1910. 25-40% of all schwannomas are found in head and neck area. Intraoral sites constitute less than 1 percent of all schwannomas. The most common site in oral cavity is tongue followed by buccal mucosa. The other oral sites being medullary bone of mandible, floor of the mouth, lip, gingiva and palate. In the oropharyngeal site, the base of the tongue has been the most common site. Following an extensive research we could only find 5 cases of pedunculated oropharyngeal schwannoma. [5-10]

The most common clinical presentation of schwannoma in head and neck region is a firm, regular and smooth swelling the neck. At other sites also, it present as regular swelling with smooth

surface. In oropharynx or oral cavity, it can masquerade as other benign lesions such as leiomyoma or myxoma.

Preoperative radiological examination is the most common investigation pointing towards preoperative diagnosis of schwannoma. MRI with gadolinium contrast is the gold standard investigation for lesions suspicious of being schwannoma. On T1 weighted images, they are low signal intensity and on T2 weighted images, it is high signal intensity. On contrast administration, these tumours are homogeneously enhancing. It shows low intensity flow void giving characteristic "salt and pepper" appearance and has delayed wash out time on diffusion weighted imaging. CT scans show a homogenous regular hypodense swelling which slightly enhance on contrast. In our case, a preoperative CT scan was done which showed a hypodense non enhancing soft tissue mass which was suspicious of leiomyoma as per senior radiologist.

Fine needle aspiration cytology may be helpful in diagnosis but has low detection rates of 25 percent. [11] In majority of the cases, the aspirated material be either haemorrhagic or cellular inadequate for diagnosis. In our case, FNAC could not be done as mass was oropharyngeal and risk of bleeding could not be ruled out.

The most common nerve of origin in extracranial schwannomas is Vagus followed by cervical sympathetic chain. The other nerves from where the tumour may arise are hypoglossal nerve, lingual nerve, facial nerve etc. In our case, we were not able to trace the nerve of origin.

Histologically, two tissue forms have been described. The Antoni type A tissue shows well-developed cylindrical bands of Schwann's cells and connective tissue fibres

with a tendency towards palisading of the nuclei about a central mass of cytoplasm (Verocay bodies). Antoni type B tissue is a loosely arranged stroma in which the fibres and cells form no distinctive pattern. Between these palisades are the regions that are devoid of nuclei termed Verocay bodies. On immunohistochemistry, schwannomas are intensely S-100 positive along with capsular epithelial membrane antigen and CD34. Schwannomas are slow growing tumours which are radioresistant. The gold standard of management of this lesion is surgical excision.

Conclusion

Schwannomas are benign, slow growing tumours arising from Schwann cells. The histopathological report and MRI imaging are considered gold standard for diagnosis. Schwannomas should be kept as differential diagnosis for soft tissue swelling in head and neck. Complete surgical resection is the most accepted line of management for large schwannoma.

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