

Schwannoma of Oropharynx: A Rare Presentation

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ABSTRACT

Schwannomas are slow growing, encapsulated, solitary, benign tumors. They can arise from any myelinated nerve as they are tumors of neural sheath Schwann cells. Schwannoma seen in head and neck region are most commonly found in tongue, floor of mouth but rarely in oropharynx and tonsils. They are usually asymptomatic and rarely undergo malignant transformation. Schwannomas are considered radioresistant and recur less frequently after complete excision. Hence, complete surgical excision is treatment of choice. We are presenting a case of elderly female with oropharyngeal schwannoma completely extirpated transorally by dissection method by cold instruments. Due to rarity of presentation the surgical approach to this lesion is not well established. Following surgery the raw area created was well epithelized and patient relieved symptoms without significant morbidity. We conclude that this is a cost-effective and simple approach for management of other similar cases in future.

Keywords: Schwannoma, Transoral, Oropharynx.

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INTRODUCTION

Among soft tissue tumors as whole those in head and neck region are uncommon. Schwannomas are tumors arising from the nerve sheath usually benign, solitary and usually slow growing. Rarely they undergo malignant degeneration.^{1,2} They arise from Schwann cells in nerve sheath but only in 50% of cases it is possible to determine the nerve of origin. They can arise in any part of body most commonly in head neck region (25-48%) but intraoral origin is rare (1%).^{3,4} They were first established as pathological entity by Verocay in 1910 and they were classified into two types, A and B, by Antoni in 1920. Patient usually present with asymptomatic mass in slow growing and it may cause functional deficit. Here we are presenting a rare presentation of the oropharyngeal schwannoma.

CASE REPORT

A 55-year-old female patient came to us with complaints of progressive dysphagia since 2 years. The dysphagia was more for solids. And there was history of gradual weight loss due to difficulty in swallowing. She did not complain any pain but there was uneasiness in throat. She noticed smooth growth in the throat gradually increasing in size.

There was no change in voice or breathlessness. The patient was neither smoker nor alcoholic. She received multiple courses of antibiotics and anti-inflammatory drugs from her family physician without any relief of symptoms. On examination of throat there was huge smooth surfaced mass arising from right lateral and posterior wall of oropharynx and extending to nasopharynx above till vallecula below (Fig. 1). The mass was covered with normal looking mucosa and it was crossing midline. On 70° scopy the vocal cords were mobile and larynx appeared to be normal. The tonsils could not be differentiated from the mass. The nasopharyngeal portion of the mass caused bulging on the ipsilateral soft palate but it was free from it. Ear and nose examination did not reveal any significant findings. Neck examination did not reveal any cervical lymphadenopathy and any other mass. The skin was normal and there was no growth on any other part of body suggestive of neurofibromatosis. Computed tomographic (CT) scan study was performed to show a well-circumscribed mass in the oropharynx and the parapharyngeal space hypovascular with smooth margins without any evidence of infiltration in the surrounding structures, though mild pressure changes can be seen in great vessels of neck (Fig. 2).

Fine needle aspiration cytology was performed which was not diagnostic so biopsy was performed and it was suggestive of schwannoma.

Under general anesthesia the mass was excised along with the ipsilateral tonsil with dissection method (Fig. 3). The mass was well encapsulated and removed *in toto*. Hemostasis was achieved but there was oozing from the small vessels so throat packing was done and patient



Fig. 1: Preoperative photograph



Fig. 2: CT scan image showing the extent of lesion

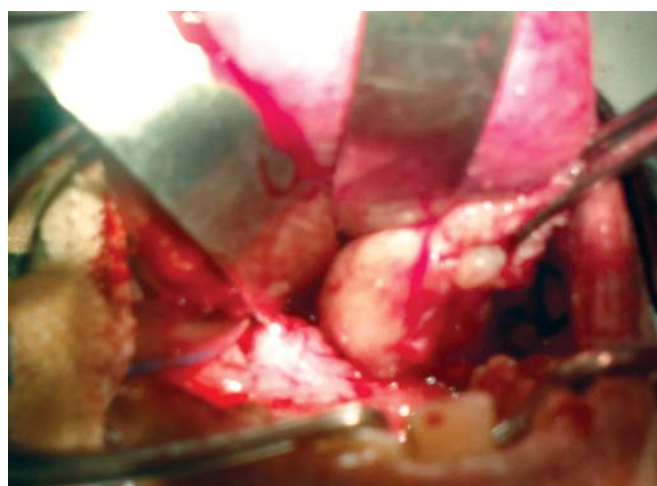


Fig. 3: Intraoperative photograph—removal of tumor by dissection method

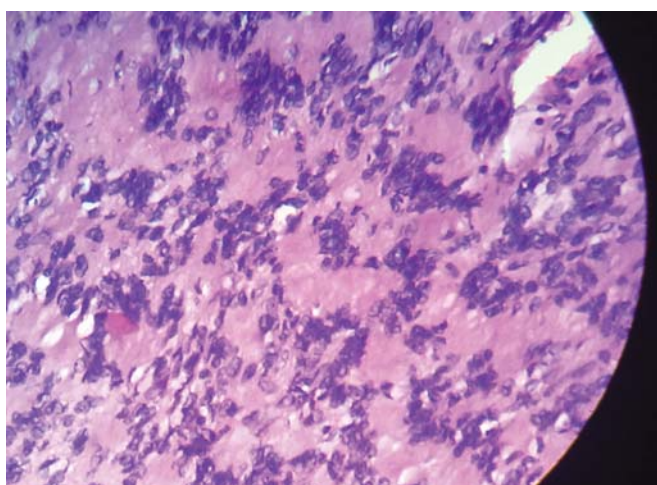


Fig. 4: Histopathology showing the benign nerve sheath tumor

was kept intubated for overnight. The throat pack was removed next morning and patient extubated uneventfully. The mass was measuring $7 \times 6 \times 5$ cm firm in consistency. On cut section the mass was of pale yellow gray color firm. Microscopy revealed the oropharyngeal mucosa with the capsulated benign nerve sheath cell tumor without breach



Fig. 5: Postoperative photograph showing the epithelization of raw area after 15 days

in capsule. The tumor showed the Antoni A and B areas that clinched the diagnosis (Fig. 4). Thus, the diagnosis was done histopathologically. Postoperative period was uneventful and the raw surface epithelized within 15 days (Fig. 5). Patient did not have any neurological deficit and relieved off all the complaints. One year postoperative period did not show any recurrence.

DISCUSSION

Schwannomas are benign, encapsulated, smooth surfaced tumors arising from the Schwann cells or the nerve sheath. They rarely undergo malignant degeneration. They are usually asymptomatic and present as painless swelling, gradually increasing in size. Oropharyngeal schwannomas is rare presentation and it causes dysphagia, odynophagia, radiating pain. Patients are asymptomatic to start with and there is gradual dysphagia due to growth. Since, the tumor is well encapsulated the spread to the surrounding parapharyngeal space is rare but it may cause compression of the vascular structures. The diagnosis is done by imaging studies and histology. Imaging study via CT scan and magnetic resonance imaging (MRI) are important. On CT scan schwannomas are hypodense and with contrast they show some enhancement at periphery. MRI of schwannomas reveals relatively low signal intensity on T1-weighted images and high signal intensity on T2-weighted images. These tumors usually enhance homogenously with the contrast. MRI sequence in the characteristics ‘salt-pepper’ pattern, represent the low signal intensity of vascular flow voids.

Histologically, the tumor is composed of elongated wavy-shaped monomorphic spindle cells, with eosinophilic cytoplasm and oval nucleus. Antoni type A and B areas usually coexist within the lesion, and nuclear palisading may be present.^{5,6} Immunohistochemically, schwannoma

is intensely reactive for S-100 protein. Histologically schwannomas must be differentiated from the neurofibroma, myxoma, fibrosarcoma and fibrous histiocytoma.

Schwannomas are radioresistant and surgical resection is treatment of choice. The tumor needs to be removed completely or otherwise chance of recurrence is there. Since, it is well encapsulated and nonvascular tumor the complete resection can be accomplished without significant difficulty.

CONCLUSION

The oropharyngeal schwannoma is rare slow growing tumor which causes progressive dysphagia. Histological and imaging studies are required for the diagnosis. The surgical resection of the tumor is method of choice for treatment.

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