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A CASE REPORT OF NECK SCHWANNOMA

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ABSTRACT

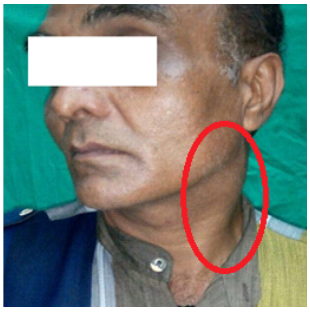
A Schwannoma is benign tumour arising from neural sheath of any peripheral, cranial or autonomic nerve and usually present as solitary and well defined lesion. There is no gene/ race/ age predilection. Around 25-45% of all extra cranial schwannoma have been reported in head and neck region and should be considered in differential of unusual masses in neck.
Schwannomas presents diagnostic and management challenge as total surgical excision with preserving nerve of origin has been mainstay of treatment .Though final diagnosis can be made with histopathological examination, the awareness and knowledge of disease on the part of clinician is essential for prompt management of the disease. Recurrence is uncommon and malignant transformation is rare (8-13.9%).
We are reporting a case of 46 years old male patient presented with complain of swelling over left side neck for 2 months.

INTRODUCTION

Schwannoma is well defined capsulated neoplasm arising from neural sheath of peripheral, cranial or autonomic nerve. They are also known as neurilemmoma, neurinoma, neuroma, spindle cell tumour etc. These are benign nerve sheath tumors which are composed of Schwann cells which normally produce myelin sheath around the nerves to enhance nerve conduction. There is no gene and race predilection. It may occur at any age. 25 to 45 percent of all schwannoma have been reported in head and neck region. Majority of them are extracranial and commonly reported in parapharyngeal space. It involves cranial nerves such as V, VII, IV, X, XI and XII or the sympathetic and peripheral nerves. Malignant change in head and neck schwannomas is rare with prevalence varying between 8 and 13.9%.

CASE REPORT

A 46 years old male patient presented in our department with painless lateral swelling on left side of neck for 2 months with progressive increase in size. No associated symptoms like pain, fever, dysphagia, dysponea, hoarseness of voice or weight loss were present.

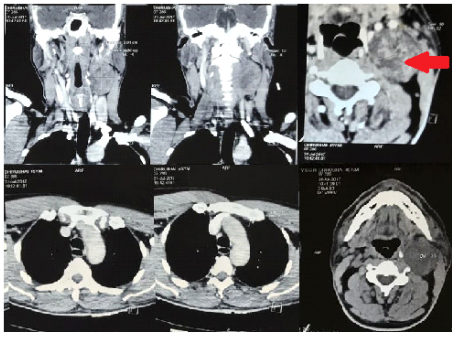


On Examination, 3x4 cm ovoid swelling present over left side anterior triangle in neck behind angle of mandible and in front of sternocleidomastoid muscle with overlying skin free and normal. It was firm, non tender, non pulsatile, mobile, non compressible and non reducible. There was no other associated swelling or lymphadenopathy.

USG was suggestive of well defined hyperechoic lesion of 62 x37 mm with mild vascularity lateral to left common carotid artery and internal jugular vein.

FNAC revealed connective tissue fragment and histiocytic collection on markedly heamorrhagic background.

CT scan of neck with contrast done, showing 40 x37x 54mm sized well defined heterogenous enhancing soft tissue density lesion in left carotid space at level of C3 – C4 vertebrae posterolateral to carotid vessel and displacing common carotid and internal carotid artery anteriorly and external carotid artery anteromedially and compressing internal jugular vein anterolaterally. It revealed possibility of neurogenic tumor.



Under general anesthesia, surgical excision carried out, sternocleidomastoid muscle was retracted to reach the mass. Mass with its capsule was separated by blunt dissection. Extent of the mass was seen reaching and displacing the carotid vessels and IJV, but preserving a plane so as not to involve those structures. Nerve of origin could not be identified. There was no extra capsular spread or invasion of mass into adjacent structures. The post operative period was uneventful.

Specimen was sent for histopathological examination and was reported as schwannoma.

DISCUSSION

History: Firstly established as pathological entity by verocay (1908) later W.H.O called it as neurinoma in 1910. First case of parapharyngeal schwannoma was reported in 1933.

Schwannoma is slow growing, benign, solitary and encapsulated nerve sheath tumor attached to nerve in collageneous matrix. It can arise from schwann cell of cranial, peripheral or autonomic nerves in perineurium. i.e any motor or sensory nerve other than optic and olfactory(do not have shwann cell sheath). Schwannoma may develop from vagus nerve or cervical sympathetic chain or glossopharyngeal nerve.

Early presentation include only solitary slow growing neck mass. In later stages according to site in neck, schwanoma may cause difficulty in swallowing (pharynx or parapharyngeal space), hoarsness of voice (larynx) or neural deficit (large tumor with nerve compression).

Symptoms can be according to nerve of origin, pain (sensory nerve),hoarseness and globus sensation (vagus nerve) and facial palsy (facial nerve).In neck it is divided into two groups, *Medial group* arise from last four cranial nerve and *Lateral group* arise from cranial plexus or brachial plexus.

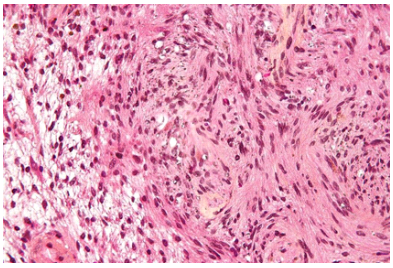
Differential diagnosis includes metastatic lymph nodes, paragangliomas, and carotid body tumor.

CTScan differentiate between vascular and nonvascular tumors and determines size and extent of tumor. FNAC is important in differentiating from benign or malignant tumor of soft tissue but may be risky due to deep seated lesions and close neighboring large vessels. FNAC is carried out under sonographic control for visual confirmation of site.

CT with contrast enhancement helps to differentiate carotid tumor from schwannoma according to pattern of splaying the carotid bifurcation. Also it differentiates between schwannomas of vagus nerve and cervical sympathetic chain by separation pattern of internal jugular vein and internal carotid artery.

Complete surgical excision with preservation of nerve function is treatment of choice. Tumor is radio resistant, therefore radio therapy is preserved only for palliative case when tumors are inoperable. Recurrence is very low.

Histopathological Examination is cornerstone for definitive diagnosis of schwannoma. It shows two microscopic patterns. **Antoni type A**: spindle shape cells with long slender fibre with palisaded arrangement and group of parallel nuclei called *VEROCAY BODIES*. **Antoni type B:** degenerative type with less cellular, randomly arranged spindle cell in loosely arranged stroma.



CONCLUSION

Extracranial schwannoma usually present as asymptomatic solitary mass. The pre operative diagnosis may be difficult; treatment plan depends upon the site of the tumor. The definitive diagnosis relies on clinical suspicion, imaging study and histopathological confirmation after surgery. Total surgical excision with preservation of the nerve of origin is treatment of choice.

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