

Schwannoma of the cervical sympathetic chain

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ABSTRACT

Schwannomas are benign, encapsulated and slow growing nerve sheath tumours arising from schwann cells. It usually presents as a painless and asymptomatic neck mass, hence preoperative clinical diagnosis is difficult. Fine needle aspiration cytology makes only a small contribution to its preoperative diagnosis, histopathological examination being more useful. We report here a case of Schwannoma of the cervical sympathetic chain in a 28 year old female.

Key words: schwannoma, schwann cell, cervical sympathetic chain, excision

INTRODUCTION

The Schwannoma was first described by Verocay in 1908 (Daly and Roesler; 1963) and has given several names although schwannoma and neurilemmoma are commonly used. A Schwannoma in head and neck region arises from peripheral cranial or autonomic nerve except olfactory and optic nerve.¹ Schwannomas are benign solitary and encapsulated well differentiated tumours originating from Schwann cells. 25 to 45 percent of extra cranial schwannoma occur in the head and neck region.² These lesions are uncommon and most often present as asymptomatic solitary neck mass, hence pre operative diagnosis is difficult and conservative surgical excision remains treatment of choice. Schwannoma arising from the cervical sympathetic chain are rare; only 60 cases had been reported so far.³ Because of lack of specific symptoms and the rarity of this lesion it can be mistaken for a bronchial cyst, lymphoma, metastatic lymph node.⁴ Fine needle aspiration cytology (FNAC) has a little role to play in its diagnosis, the definitive diagnosis has to be made by histopathology examination of excised specimen. The treatment of choice is surgical excision, recurrence is very rare. We report a case of schwannoma of cervical sympathetic chain in a woman for its rarity and difficult preoperative diagnosis.

CASE REPORT

A 25 yr old woman presented to the outpatient surgical department with complaint of a painless

mass on the left side upper lateral part of neck, which had been slowly increasing size since 7 months. On examination there was 6x4cm oval mass in the left side of neck under the sternocleidomastoid muscle. Overlying skin was normal, no visible pulsation, and not involving neck vessels. Provisional diagnosis of cervical lymphadenopathy was made and she was advised FNAC. As FNAC was suggestive of a Schwannoma, excision was planned.

During operation, the mass was found to be arising from the cervical sympathetic chain with some cystic consistency. It was carefully separated from the nerve and was excised completely. Section of the resected mass showed encapsulated grey-white solid area with focal tiny cystic lesions. Microscopy revealed characteristic Antoni A and B pattern and also sheets of spindle shaped cells at places, forming palisade nuclei (Verocay bodies) confirming the diagnosis of schwannoma.



Figure-1. cut section of tumor mass shows capsulated grey white solid area with focal tiny cystic spaces.

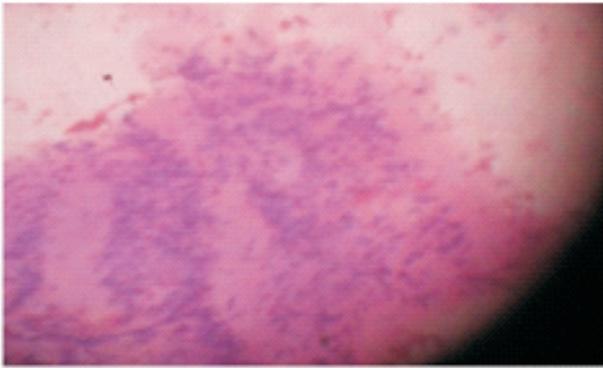


Figure-2. (FNAC - low power view) Cytosmears show spindle to plump shape cells with nuclear palisading and formation of Verocay bodies

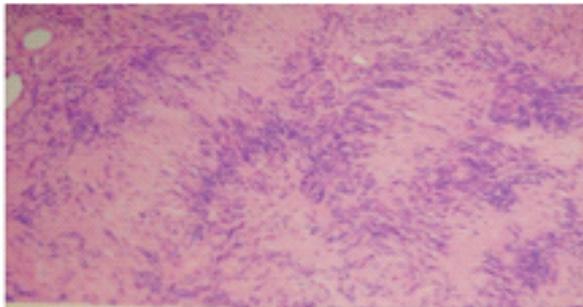


Figure-3. (haematoxylin and eosin stain low power view) Microscopic section of tumor showing whorls of cellular (Antoni A) with nuclear palisading (Verocay bodies) and loosely cellular (Antoni B)

DISCUSSION

Schwannoma of cervical sympathetic chain is a benign nerve sheath tumour that occurs along the course of nerves. In most cases, it arises from the superior or middle part of the sympathetic chain. These tumours are well encapsulated and nerve fibers often splay out on the surface and never penetrate the capsule.⁵ It often presents as slow growing neck mass without any neurological symptoms.⁶ Hence it may sometimes be misdiagnosed as carotid body tumours, parotid tumours, minor salivary gland tumours, vagal schwannoma, sympatheticoblastoma, leiomyoma, a

neurysm of the internal carotid artery, lymphoma, bronchial cyst, distant metastasis, neurofibroma and rhabdomyoma.⁷ It is generally seen between 20 and 50 yrs of age, malignant transformation is very rare.⁸

FNAC has been recommended as initial procedure to establish diagnosis but has not gained widespread acceptance despite its considerable reliability.⁸ In our case, though FNAC contributed substantially in its preoperative diagnosis, however, definitive diagnosis was made after histopathological examination. These tumours are often associated with small cysts but rarely with large cysts and are attributable to vacuolar degeneration in Antoni B components.⁹

CONCLUSION

Schwannoma of cervical sympathetic chain do not present with specific symptoms or imaging signs. Imaging examinations cannot reveal the exact origin of the tumour. Incisional biopsy presents some risk, and FNAC provides minor diagnostic value in compact neural tumours. Only surgical observation of the lesion and the nerve from where it originates, and histologic examination of the specimen, can lead to a correct diagnosis. Total resection is the treatment of choice for these tumours.

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