



CAROTID SPACE TUMOUR – SCHWANNOMA

Plastic Surgery

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ABSTRACT

The cervical schwannoma is very rare but benign mass lesion. It often results in nonspecific clinical presentations requiring surgical ablation. Surgical indications should be based carefully on the balance between risks and benefits. Intracapsular enucleation seems to give good results without much complications and recurrence is rare. Reporting case of schwannoma which at first stance seems to be having features of typical carotid body tumour but on histopathology it is seen as Schwann cell tumour arising in left carotid space.

KEYWORDS

schwannoma, carotid body tumour, glomus vagale.

Introduction:

Schwannomas are slow-growing, encapsulated, benign, rare but usually asymptomatic tumors that can originate from any nerve covered with a sheath of Schwann cells[1]. About one third of schwannomas originate in the head-and-neck region, of which about 10% originate from either the vagal or sympathetic nervous system. Depending on the location may cause swelling in the neck, dysphagia, and hoarseness of voice.

Case Report: 27 year old male had rare well defined heterogeneously enhancing mass of more than 5x4x7 cm on MRI in upper left neck carotid space pushing the aerodigestive tract medially and encroaching prevertebral space posteriorly[Fig.1].

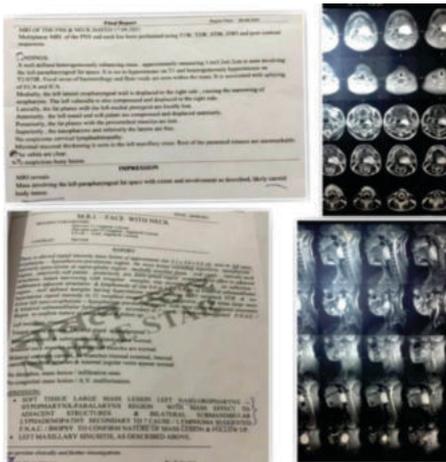


Fig. 1 MRI Findings

On CT angiography the mass lesion seen in left carotid retropharyngeal space causing splaying or widening of the left internal and external carotid artery bifurcation suggesting it to be carotid body tumour[Fig.2].

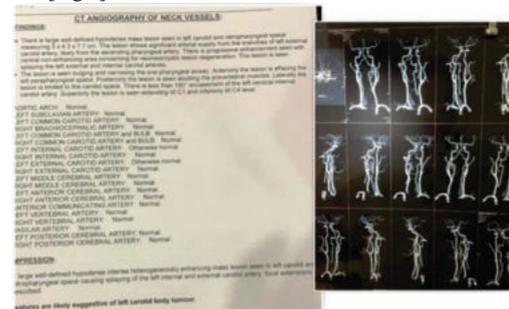


Fig. 2 CT Angiography

There is less than 180 degree encasement of left cervical internal carotid artery by the mass and it vertically extended from C1 to C4 vertebrae level. On histopathology it was diagnosed as Schwannoma with predominantly having Antoni-A pattern. Clinically the patient had slow growing mass in left side of neck for last two years with difficulty in swallowing for last two months without hoarseness or change in voice. During operative procedure after giving incision paralleling the anterior border of sternomastoid, the platysma is cut and soon able to explore carotid triangle and see the widening of carotid bifurcation over the swelling and internal jugular could not be ascertained as pushed laterally and behind. From intra oral side could manipulate the upper edge of tumour protruding near tonsillar region. The left posterior digastrics muscle cut and glossopharyngeal and lingual nerves pushed up. After freeing external carotid which seemed to be adhered was ligated and cut above superior thyroid branch and plane was made just medial to mass and finger dissection was done to enucleate the mass from prevertebral area. Laterally internal carotid carefully dissected free and tumour mass was enucleated which was very smooth and vagus nerve in the process was pushed away without any damage. The prevertebral bleeding and minor feeding vessel to tumour mass were taken care[Fig.3].



Fig. 3 Specimen from neck.

The tumour which was supposed to be classical carotid body tumour but on histopath came out to be schwannoma probably from vagus nerve and can be stated to be Glomus Vagale[Fig.4].

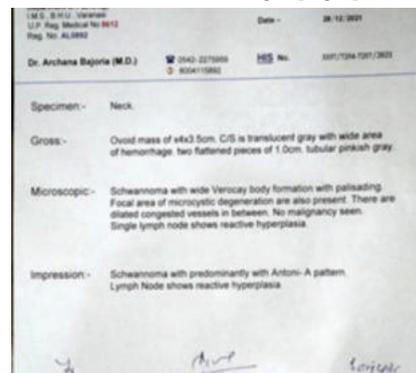


Fig. 4 Schwannoma on histopath.

DISCUSSION:

Usually reported to occur in patients between 30 and 50 years of age irrespective of sex predisposition. MRI important in diagnosing the tumour. Clinically, they present as asymptomatic slow-growing lateral neck masses that can be palpated along the medial border of the sternocleidomastoid muscle. Pre-operative diagnosis of schwannoma is difficult because many vagal schwannomas do not present with neurological deficits and several differential diagnoses for tumour of the neck may be considered, including paraganglioma, branchial cleft cyst, malignant lymphoma, metastatic cervical lymphadenopathy[3]. It is very rare. If symptoms are present, hoarseness is the most common. Occasionally, a paroxysmal cough may be produced on palpating the mass. This is a clinical sign, unique to vagal schwannoma. Presence of this sign, associated with a mass located along the medial border of the sternocleidomastoid muscle, should make clinicians suspicious of vagal nerve sheath tumours[2-4] The MRI appearance is considered quite typical and may lead to suspicion of the diagnosis pre-operatively as the cervical vagal neurinoma frequently appears as a well-circumscribed mass lying between the internal jugular vein and the carotid artery. In our case these features were not present and was more towards carotid body tumour. The vagal schwannomas, in fact, displace the internal jugular vein laterally and the carotid artery medially, whereas schwannomas from the cervical sympathetic chain displace both the carotid artery and jugular vein without separating them in MRI[4-8]. Treatment of vagal nerve tumours is complete surgical extirpation. At surgery, these tumours appear as yellowish-white, well-circumscribed masses. Dissection of the tumour from the vagus with preservation of the neural pathway should be the primary aim of surgical treatment for these tumours.

CONCLUSION:

This is a case of schwannoma which at first stance seems to be having features of typical carotid body tumour but on histopathology it is seen as Schwann cell tumour arising in left carotid space.

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