



VAGAL SCHWANOMA, A SURGICAL CHALLENGE FOR HEAD AND NECK SURGEONS

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ABSTRACT

A schwannoma is a benign, slow growing, encapsulated nerve sheath tumor. Schwannomas are one of the common parapharyngeal tumors. A vagal schwannoma presenting as a lateral neck mass can also be confused with schwannoma arising from cervical sympathetic chain which can be differentiated with the help of a radiological scan.

KEYWORDS :

CASE REPORT:

A 67 year old male patient presented with the complaints of painless progressive swelling in Right side of neck for past 4 years. There is an addiction history for tobacco products for 15 years. There is no history of trauma, prior ENT surgery, hemoptysis, voice change, fever, pain or variation in size of swelling associated with chewing of food. On examination swelling is approximately 5*4 cm in size, located below right angle of mandible just behind right sternocleidomastoid muscle, soft to firm in consistency, not warm and not tender with normal overlying skin. Radiological scan revealed an ovoid, heterogeneously enhancing mass in right carotid space measuring 4*3.2*6 cm causing splaying of Right common carotid artery and Internal jugular vein with compression and lateral displacement of IJV. There is no evidence of internal calcification or cystic areas. Findings are most likely suggestive of Schwannoma. Cytopathological reports suggested a benign spindle cell tumor most likely to be schwannoma. Preoperative Indirect laryngoscopy findings are within normal limits. In preoperative assesment, vagal nerve schwannoma was diagnosed and planned for surgery. Microscopic intoto excision of swelling was done under General anaesthesia and specimen sent for histopathology. Intraop and postop periods are uneventful. Patient doing well in subsequent follow ups. HPE of excised swelling reveals alternating hypercellular (compact spindle cells) Antony A areas with hypocellular (loosely arranged schwann cells) Antony B areas suggestive of Schwannoma.

DISCUSSION:

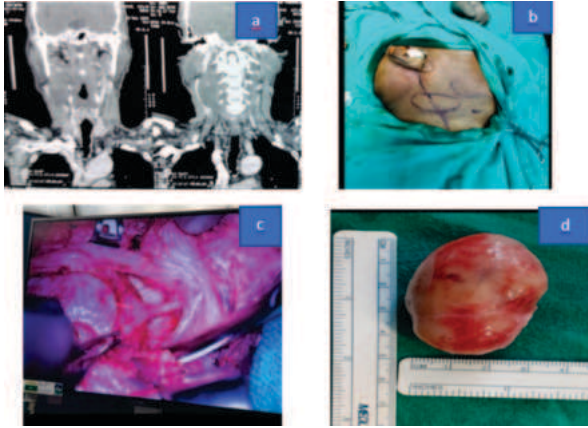
Tumors of parapharyngeal space are rare accounting for only

0.5%. Common tumors are Schwannomas (mostly from vagus nerve or cervical sympathetic chain), Paragangliomas or minor salivary gland tumors (1). Schwannomas are benign, slow growing, encapsulated nerve sheath tumor comprising of schwann cells in a collagenous matrix (2). About 25-45% of extracranial schwannomas occur in head and neck region (3) usually in lateral part of neck (4) and of Vagal origin in 10% cases (5). Vagal schwannomas usually occur between 2nd and 6th decade of life with no sex predilection (6). They can arise from superior or inferior ganglion of vagus nerve, while tumors arising from superior ganglion at jugular foramen can have intracranial extensions while tumors presenting as lateral neck masses usually arise from inferior ganglion (7). Mostly present as asymptomatic mass, can also be associated with hoarseness of voice. Occasionally a paroxysmal cough is produced on palpation of mass which is characteristic of vagal schwannoma (8,9). Preoperative diagnosis is difficult since there are no classic imaging or diagnostic criteria (10). CECT is adequate for diagnosis since FNAC having low accuracy in diagnosing neural sheath tumors but MRI is the gold standard (11). Tumors arising from Vagus cause splaying of Common carotid from Internal jugular vein whereas tumor arising from sympathetic chain displaces both but not cause splaying (12).

Since risk of recurrence is low , treatment involves complete surgical excision with nerve preservation since vagal nerve injury is associated with high morbidity (13). Preop status of vocal cords is a must since postoperative complaints of hoarseness of voice due to nerve palsy is the most common complication (8). Since vagal schwannoma is mostly benign,

conservative approach is considered first if integrity of nerve is in question (13).

Pictures



Pic A- CT Scan

Pic B- Pre operative image

Pic C- Intra operative image showing Vagus nerve

Pic D- post operative image of specimen

CONCLUSION:

Vagal schwannoma is a rare parapharyngeal space tumor. Most patients present with progressive neck swelling without neurological deficit. CECT is adequate for diagnosis but MRI is gold standard. Complete surgical excision is the treatment of choice to prevent recurrence. Vocal cord paralysis is the most common postop complication.

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