Abstract: Schwannoma is a benign encapsulated slow growing tumour arising from schwann cells of neural sheath. Fewer than 60 cases of schwannoma arising from cervical sympathetic chain have been reported. We report a case of 28 year old male with complaints of snoring for 1.5 years, swelling in the neck for 1 year change in voice for 6 months. Patient had a smooth surfaced mass seen in right lateral pharyngeal wall and swelling in the neck measuring 8x6 cm deep to sternocleidomastoid muscle. Contrast enhanced CT NECK showed heterogenous mass involving parapharyngeal space USG guided core needle biopsy proved it to be schwannoma. Mass was excised through Trans - Cervical approach arising from cervical sympathetic chain. Post operatively patient had partial right Horner's syndrome with mild ophthalmic signs without facial anhydrosis. HPE report confirmed it to be Schwannoma.

Keyword: Schwannoma, cervical sympathetic chain, snoring, Horner's syndrome

INTRODUCTION
Schwannomas, neurilemmomas or neurinomas are benign nerve sheath tumours deriving from Schwann cells that occur in the head and neck region in 25-45% of cases. The Schwann cell surrounds peripheral nerve tissue and is believed to originate from the neural crest. They are typically solitary, well-encapsulated, benign tumours characteristically running along the course of a nerve or attached to peripheral, cranial, or sympathetic nerves. Malignant transformation is rare. In the parapharyngeal space, schwannomas may arise from the last four cranial nerves or the autonomic nerves, the vagus being the most common site. Cervical schwannomas are uncommon, but those arising from the cervical sympathetic chain are extremely rare, with less than 60 cases reported in the English literature. In this report, we document a case manifesting as a swelling in the upper neck, which confirms the typical presentation of the tumour, displacing the carotid arteries anteriorly.

CASE REPORT
A 28 year old man came to ENT outpatient department with complaints of snoring and swelling in the right side of the neck for 1.5 years which was progressive in size with change in voice (hot potato voice) for 6 months. It was not associated with dysphagia, dyspnoea or pain. On examination mass was measuring 8x6 cm below angle of mandible deep to sternocleidomastoid. It was firm, non-tender, not pulsatile, not reducible or compressible with no associated brut. Oropharynx examination showed smooth surfaced mass seen involving the right lateral pharyngeal wall with intact mucosa. Vocal cords could not be visualized on Indirect laryngoscopy examination as the mass was obscuring the view. Rigid endoscope examination showed normal functioning vocal cords with mass extending up to the laryngeal surface of epiglottis on the right side. Ear and Nose examination were found to be normal.

CERVICAL SYMPATHETIC CHAIN SCHWANNOMA - A CASE REPORT
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and vagus nerve antero-laterally 10 or the internal carotid artery also. A large tumour can displace the internal carotid artery; no separation has been seen between the artery and the vein in the jugular vein causing separation of the two vascular structures; no significant displacement of the internal or common carotid artery and the internal jugular vein has been observed.

Cervical sympathetic chain schwannomas (CSCS) are rare, benign tumours originating from the sympathetic chain or vagus nerve 10. On MR-imaging, the internal carotid artery or common carotid artery anteriorly is suggestive of schwannoma originating from the sympathetic chain or vagus nerve 10. On MR-imaging, schwannomas are generally hypointense on T1-weighted and hyperintense on T2-weighted images, depending on its cellularity. The random distribution of Antoni A and B within the tumour is responsible for thedishomogeneous signal at MRI 18. There is marked enhancement of the solid component of the tumour following the administration of gadolinium. Conventional digital subtraction angiography (DSA), though invasive, is performed to reveal vascularity within the tumour or around the capsule 8-19. Schwannomas can appear as hypovascular or moderately hypervascular tumours on angiography 13, and the hypervascular type may display tortuous vessels and reveal puddling of contrast material, but no arteriovenous shunting or luminal narrowing 20.

In recent years CT has been used widely to localize paraganglioma lesions, distinguishing pre-styloid from post-styloid ones 4. A mass on contrast-CT pushing the internal carotid artery or common carotid artery anteriorly is suggestive of schwannoma originating from the sympathetic chain or vagus nerve 10. On MR-imaging, schwannomas are generally hypointense on T1-weighted and hyperintense on T2-weighted images, depending on its cellularity. The random distribution of Antoni A and B within the tumour is responsible for the dishomogeneous signal at MRI 18. There is marked enhancement of the solid component of the tumour following the administration of gadolinium. Conventional digital subtraction angiography (DSA), though invasive, is performed to reveal vascularity within the tumour or around the capsule 8-19. Schwannomas can appear as hypovascular or moderately hypervascular tumours on angiography 13, and the hypervascular type may display tortuous vessels and reveal puddling of contrast material, but no arteriovenous shunting or luminal narrowing 20.

Incisional biopsy can lead to a correct diagnosis in most cervical masses, but unfortunately it presents some risk of complications such as a nerve lesion, uncontrolled haemorrhage or a successive more difficult resection. FNAB provides far less valuable information for the compact neural tumours 4, and FNA-cytology can lead to correct diagnosis in only 25% of cervical schwannomas. The final differential diagnosis in the suspect of CSCS is to distinguish it from other pathologies of the retrostyloid compartment. Carotid Body Tumour(CBT) must be considered, especially if the tumour presents as a pulsatile mass. A "salt and pepper" pattern on postgadolinium MRI sequences is commonly seen in CBT, but it is not pathognomonic as may be found in other hypervascular lesions and in CSCS 11. In CBT, CT and MRI display a homogeneous and intense pattern of enhancement following intravenous contrast, while enhancement in schwannoma is less intense and dishomogeneous. Spaying of the carotid bifurcation, typical of CBT, can also be found in schwannoma arising from the lower four cranial nerves or the sympathetic chain 19; the main imaging criterion to differentiate CBT and a nerve sheath tumour is hypervascularity. This can be
Radiological investigations can only narrow diagnosis to lesions that are isodense compared with muscle on pre-contrast CT scan, while in the post-contrast phase a more reliable homogeneous enhancement is appreciable. In post-gadolinium MRI sequences, paraganglioma shows extremely bright contrast enhancement in a characteristic "salt and pepper" pattern that is not pathognomonic, as may be seen in other hypervascular lesions. However, paraganglioma is more cranial in the superior-median lateral-cervical neck region compared to schwannomas.

Schwannomas of the vagus nerve and the sympathetic chain cannot be distinguished without radiologic signs of separation between the common carotid artery and internal jugular vein. A superficial course of the vagus nerve on the mass or vagal connection with the tumour can be important to detect, respectively, a sympathetic or vagal origin of the tumour, but they are difficult to find by preoperative radiology 6. In our case, vagal schwannoma was excluded as there were no radiologic signs of separation between the common carotid artery and the internal jugular vein and no radiologic signs of vagal involvement were evident. During surgery, the appearance of the tumour can suggest the right diagnosis if the lesion presents as a fusiform mass, eccentrically to the nerve and surrounded by a capsule. Complete surgical removal of the mass, without sacrificing nerve fibres, is possible only when the capsule is easily separable from the underlying fibres. When dissection of the capsule from the nerve is not easy and there are no signs of malignancy, functional loss can be minimized by opening the capsule longitudinally and removing the tumour from inside 6 23. Nevertheless, a CSCS can be uncommonly removed without sacrifice of some nervous fibres or section of the sympathetic trunk 4 8. Moreover, since cerebral sympathetic chain damage is well tolerated, restoration of the nerve has only been rarely performed, while in vagal schwannomas the practice of nerve reconstruction is recommended 6.

Thus, the majority of patients who have undergone intervention are reported to manifest some degree of Horner's syndrome, which is the most frequent complication after CSCS removal 4 7 8 18. The actual percentage of this complication and its impact on quality of life are not well known, but its frequency is estimated to be quite high, also in its definitive form. In our patient, a partial, well tolerated Horner's syndrome occurred on the right side of the face and is still present at 7 months of follow-up; therefore, partial, well tolerated Horner's syndrome, which is the most frequent complication after CSCS intervention are reported to manifest some degree of Horner's syndrome, which is relatively well tolerated and should be discussed with the patient during preoperative counselling.

REFERENCES

