# CASE REPORT

## EXTRACRANIAL HEAD AND NECK SCHWANNOMA: CASE REPORT

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**ABSTRACT:** Schwannoma is a benign nerve sheath tumour composed of Schwan cells which normally produce the insulating myelin sheath covering peripheral nerves. Schwannoma is a homogenous tumour, consisting only of schwan cells. The tumour cells stay outside the nerve, but the tumour itself may either push the nerve aside or up against a bony structure there by producing nerve damage. They arise from peripheral, cranial and autonomic nerves and usually present as solitary well demarcated lesions. Extracranial Head and Neck schwannomas are rare tumours. They may produce secondary symptoms like nasal obstruction, dysphagia, and hoarseness of voice depending upon the location of the tumour. FNAC, Ultra sound, CT, MRI may be of limited help in the diagnosis. Complete surgical excision is the treatment of choice. Post operative histopathological examination establishes the final diagnosis
**KEYWORDS:** Schwannoma, Extracranial, Head and neck.

**INTRODUCTION:** Schwannomas are benign nerve cell tumours. They have been given various names like Neuroma, Neurilemmoma, Neurofibroma, Schwan cell tumour, Spindle cell tumour etc. Schwannomas of head and neck are not uncommon but rarely reported. 25–45% of all Extracranial schwannomas have been reported in the head and neck region.[1,2,3,4] 1/3 of the solitary Neurilemmomas occur in the head & neck region and lateral part of the neck is the common site.[5] These are reported in parapharyngeal space, retropharyngeal space, posterior pharyngeal wall, paranasal sinuses, nasal cavity, scalp, submandibular region, larynx, epiglottis, tongue, infratemporal fossa, cheek, oral cavity etc.[6]

Involves all cranial nerves except I & II (V, VI, X, XI, XII), peripheral and autonomic nerves.[7] Pre-operative investigations include U/S, CT, MRI, FNAC. However preoperative diagnosis is difficult. Management is multicentric – observation, complete tumour excision, intracapsular excision. In case of tumour arising from major cranial nerves, complete excision renders lifelong morbidity to patients, on the other hand nerve preserving methods like intracapsular excision does not guarantee intact nerve function after surgery.[8,9] Schwannoma was first described by Verrocay in 1908.[10]

**CASE REPORT:** A 36 year old female patient presented with painless, gradually increasing swelling on the left side of the neck for the last one and half year. There were no associated symptoms like dysphagia, change of voice. There was no other significant positive history, physical examination was normal.

Local examination revealed 6 × 4 cm swelling anterior to upper half of sternomastoid muscle and below the mandible in the anterior triangle of neck on the left side.

CT scan revealed the mass in the anterior triangle of neck displacing the external & internal carotid arteries anteriorly, IJV is compressed by the mass.

FNAC was suggestive of a benign soft tissue tumour possibly a Neurilemmoma.

Excision by Transcervical approach was done under GA. Post-operative period was uneventful. HPE showed it to be a Schwannoma.

**DISCUSSION:** Neurogenic tumours arise from the neural crest which differentiates into the Schwann cells and the sympathicoblasts.[5] The schwann cells give rise to neurofibroma and neurilemmoma (Schwannoma). A schwannoma is a slow growing solitary and encapsulated tumour attached to a nerve. Degenerative changes such as cystic alterations and hemorrhagic necrosis are seen in schwannoma whereas such changes are not seen in neurofibroma.[5]

Schwannoma may arise from any cranial or spinal nerve that has a sheath i.e. any motor or sensory nerve other than the optic and the olfactory nerves which do not have the schwann cell sheath. Schwannoma was first established as a pathological entity by Verocay in 1908 who later called it Neurinoma.[10]

Later the term neurilemmoma was coined by Stout in 1935. Parapharyngeal space is the most common site of schwannoma in head and neck region accounting for 25-40% of all reported patients and most of them occur the 3 and 8 nerve.[11] The size of the tumour may vary from few mm to over 24cms.The clinical signs and symptoms vary according to the anatomic site of the tumour in the head and neck. Majority of the patients present with a painless mass and pain may be present only in few cases. Other symptoms may be difficulty in breathing(nose), dysphagia(pharynx), epistaxis (PNS), hoarseness (larynx)or only a swelling in the neck (parapharyngeal space.[11] The swelling is freely mobile in soft tissues, but when it is connected to a large nerve or trunk there is restriction of the movements.

The schwannoma may arise at any age and there is no gender or race predilection. Though there are no known predisposing factors, trauma may be the causative factor in some cases. The nerve of origin is usually not identifiable. In the neck, the schwannoma has been divided into medial and lateral group. Medial group arises from the last four cranial nerves and cervical sympathetic chain. Lateral group arises from the cervical nerve trunk, cervical plexus and the brachial plexus.[5] Schwannoma may also originate from vagus nerve, sympathetic chain or the glossopharyngeal nerve.[5] A study had reported a case of lingual nerve schwannoma in the submandibular region. The preoperative diagnosis of schwannomain the head neck region is difficult. Most of the investigations like FNAC, CT and Magnetic resonance imaging (MRI) are of limited use in diagnosis of schwannoma. The treatment is complete surgical excision of the tumour. Recurrence after successful enbloc removal of the tumour is very rare. Histopathological examination reveals two types of schwannoma - Antoni type A and Antoni type B. The tumour is radio resistant and the possibility of the malignant change of the benign tumour is extremely rare. Radiotherapy should be reserved for palliation only in cases of inoperable tumours.

**CONCLUSION:** Extracranial schwannoma are rare and most often present as asymptomatic solitary masses. The preoperative diagnosis may be difficult. The definitive diagnosis relies on clinical suspicion and histopathological confirmation after operation. Local recurrence is rare.

Complete surgical excision is the treatment of choice. The possibility of nerve injury should be kept in mind.

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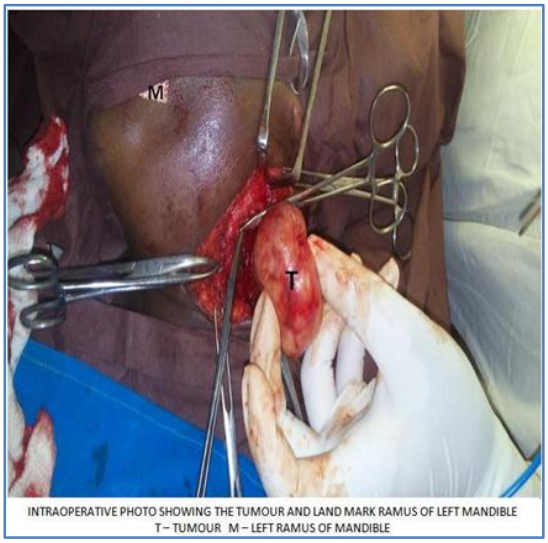
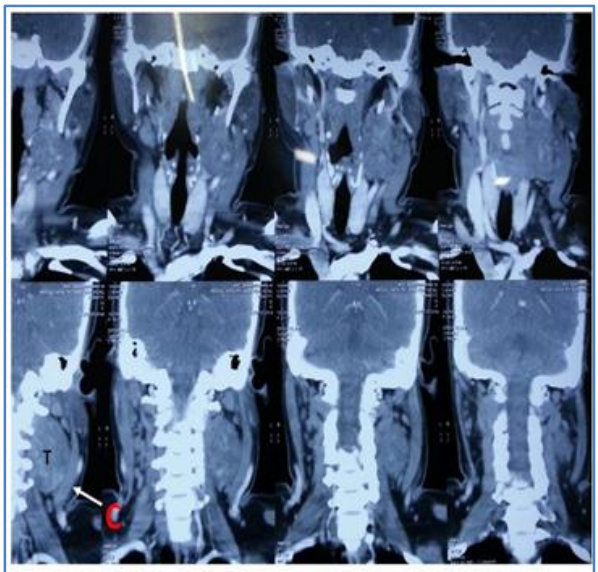
POST OPERATIVE PHOTO SHOWING HEALED SCAR



INTRAOPERATIVE PHOTO SHOWING THE TUMOUR AND LAND MARK RAMUS OF LEFT MANDIBLE
T – TUMOUR M – LEFT RAMUS OF MANDIBLE




C T SCAN NECK SHOWING THE TUMOUR DISPLACING THE CAROTID ANTERIORLY
T – TUMOUR C- CAROTID ARTERY

**CECT – NECK**

**FINDINGS :**

**There is a heterogeneously enhancing hypodense well encapsulated, predominantly solid areas 36 x 44X42 mm seen in left side of Neck, deep to sternomastoid muscle, displacing the carotid artery & its bifurcation anteriorly. The perihilar fat planes are well preserved.**

Nasopharynx, oropharynx and hypopharynx are normal.

Para pharyngeal spaces and recesses are normal.

Base of tongue and intrinsic muscles of tongue are normal.

Epiglottis is normal.

Pharyngo epiglottic folds and pyriform sinuses are normal.

Vocal cords and ary epiglottic folds are normal.

Bilateral parotid glands are normal.

Soft tissue planes, superficial and deep muscles of neck are normal.

No cervical lymphadenopathy noted.

Thyroid gland is normal.

Visualized upper lung fields show no abnormality.

**IMPRESSION :**

- **S/o. Benign, well encapsulated mass in left side of Neck.**
- **S/o. Neurogenic Tumor.**

**Advised : MRI Cervical Spine & Ultrasound Guided FNAC.**

**Kindly Correlate Clinically.**

**Dr. M.S. SRIDHAR**
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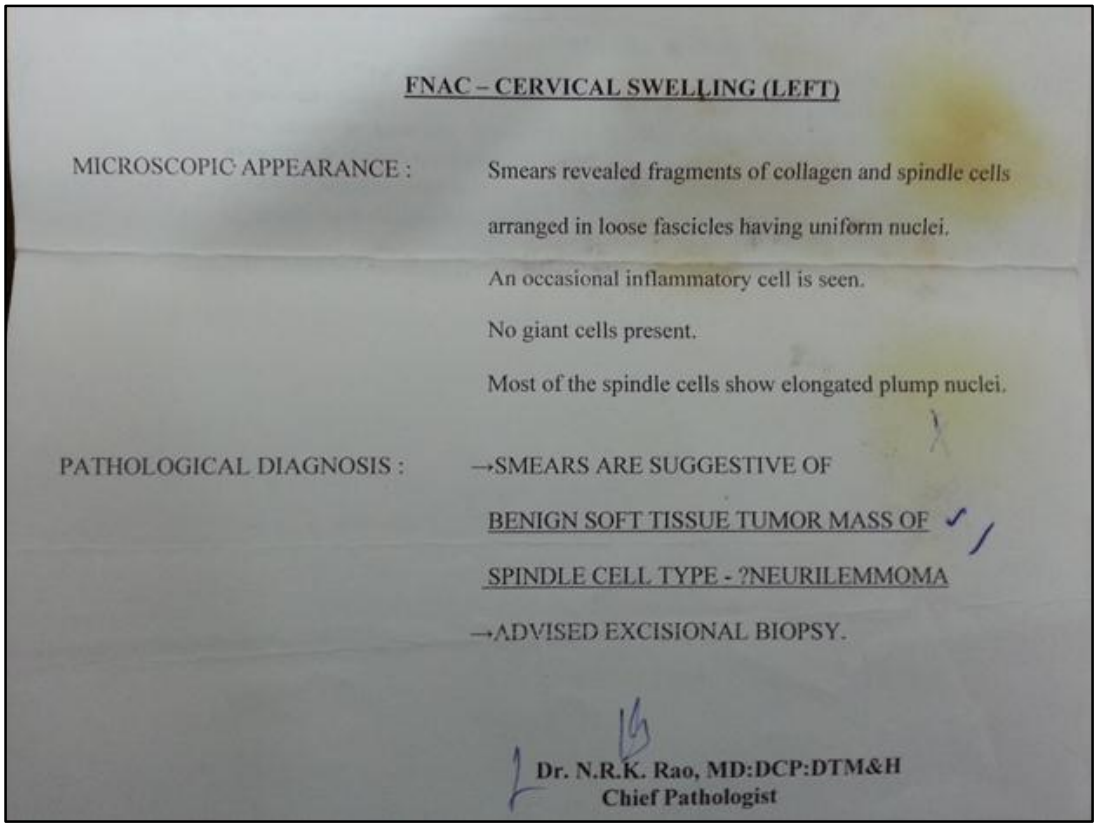

FNAC – CERVICAL SWELLING (LEFT)

MICROSCOPIC APPEARANCE : Smears revealed fragments of collagen and spindle cells arranged in loose fascicles having uniform nuclei.

An occasional inflammatory cell is seen.

No giant cells present.

Most of the spindle cells show elongated plump nuclei.

PATHOLOGICAL DIAGNOSIS : →SMEARS ARE SUGGESTIVE OF

BENIGN SOFT TISSUE TUMOR MASS OF

SPINDLE CELL TYPE - ?NEURILEMMOMA

→ADVISED EXCISIONAL BIOPSY.

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