

Schwannoma of larynx - a rare presentation

Atish Haldar · Arnod Choudhury · Pranabashish Banerjee · Saumik Das · Ramanuj Sinha

Abstract Neurogenous tumours of the larynx are extremely uncommon. Schwannoma of larynx is a variant of neurogenous tumour. The patient underwent microlaryngoscopic excision of that tumour. We present here the clinical findings of the case, along with direct laryngoscopic view, the photograph of the mass after removal and histological slide compatible with the diagnosis of schwannoma.

Keywords Laryngeal tumours · Schwannoma

Introduction

The tumours of Schwann cells are often called as schwannoma, neuroma, neurinoma or neurolemmomas [1]. Schwann cells are satellite cells of peripheral nervous system. These cells produce myelin. The axons of the nerves are ensheathed by them. They are separated from the endoneurium by the Schwann cell plasma membrane [2]. Schwannoma can arise from any nerve root having Schwann cell. They are mostly benign and slow growing in nature but they can undergo malignant transformation. Schwannoma of larynx is a very rare neurogenous tumour. Only a few cases have been reported so far.

Case report

A 42-year-old male presented at our Otolaryngology clinic with a history of hoarseness of voice since last six months. He also complained that the hoarseness was getting worse day by day. He had no difficulty in respiration and swallowing. There was no palpable cervical lymph node. Indirect laryngoscopy showed a large pedunculated, reddish glistening mass arising from his right vocal cord. The mass was moving up and down with respiration. Preoperative investigations were done and the patient was admitted in our hospital. Under general anaesthesia nasotracheal intubation was done by 6.5 cm tube (smaller size) with great care without producing any injury to the mass. (Fig. 1) Microlaryngoscopic excision of that mass was performed. The tumour was meticulously removed from its base with the help of microscissors without injuring vocal cords. Bleeding was minimal and haemostasis secured. The mass was 2.7 cm in length and 1.6 cm in breadth. It was firm in consistency and had a smooth glistening surface (Fig. 2).

Histopathological examination showed that the tumour was encapsulated and it exhibited densely packed elongated cells in some places and loose meshwork of cells at other places, consistent with the diagnosis of schwannoma (Fig. 3).

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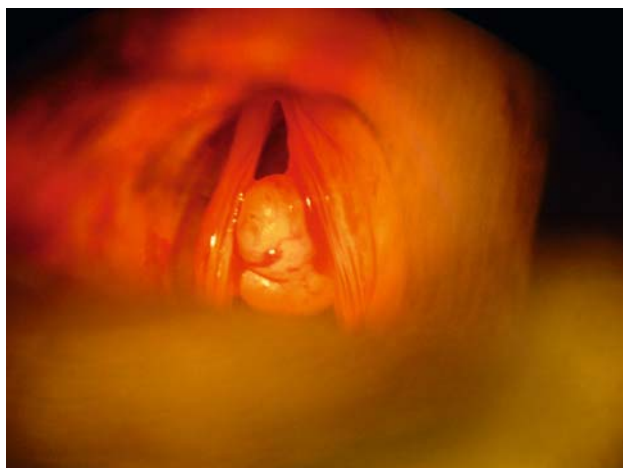


Fig. 1 Micro laryngoscopic view of laryngeal schwannoma

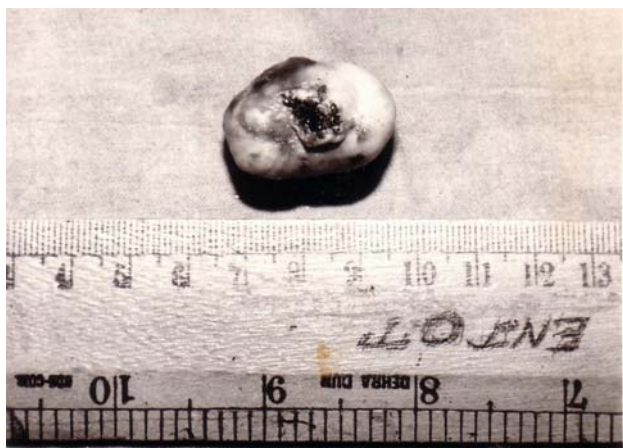


Fig. 2 Photograph of the mass after removal

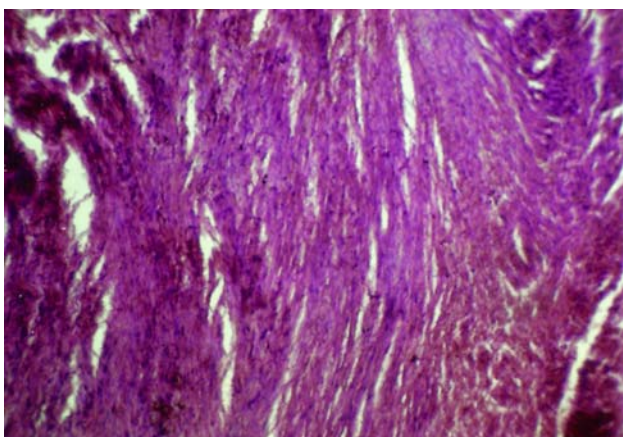


Fig. 3 Histopathological photograph of schwannoma (H.E stain) magnification x100

The recovery was uneventful. After six months follow up there was no evidence of any residual mass or recurrence.

Discussion

Nerve sheath tumour was first described by Verocay in 1910.³ Schwannomas arise from schwann cells of nerve root, most frequently in the eighth cranial nerve (vestibular Schwannoma/ acoustic Schwannoma/ acoustic neuroma). The fifth cranial nerve is the second most common site. Hence schwannomas can arise from any cranial or spinal nerve root except from optic and olfactory nerve. These two nerves are myelinated by oligodendroglia rather than Schwann cells. These tumours may arise in patients with Neurofibromatosis type 1 and type 2 [1]. Schwannomas are mostly benign but occasionally it may undergo malignant changes. These are encapsulated slowly growing tumours.

Schwannoma of larynx usually arises from supraglottic region mostly from aryepiglottic fold and false cord. The superior laryngeal nerve is most commonly affected. Patients of laryngeal schwannoma commonly present with hoarseness of voice, dysphagia, dyspnoea, globus sensation, shortness of breath [4]. Patient may also present with airway obstruction [5]. To our knowledge, there has been only one reported case of asphyxial death from laryngeal schwannoma [6]. But in our case, the patient presented with only hoarseness without having any difficulty in swallowing or respiration.

Microscopically schwannoma contain areas of densely packed spindle cells termed Antoni A tissue, intermixed with looser myxoid regions termed Antoni B tissue. In denser areas cell nuclei may form orderly palisades, termed Verocay bodies. Degenerative changes include vascular hyalinization and lipid laden macrophages; scattered, enlarged, hyperchromatic nuclei are present without any mitotic activity. Native (non neoplastic) peripheral nerve elements are sometimes identifiable at the periphery of the neoplasm [7]. Immunohistochemically, schwannomas demonstrate S-100 positivity [2].

Surgery is the treatment of choice for schwannomas of the larynx because they are usually benign and do not recur on long term follow up after complete surgical excision. In our case, microlaryngoscopic excision was done as the tumour was not large and was arising from the edge and upper surface of right vocal cord. Larger ones have to be removed by external approach.

The objective of our presentation is to acquaint the clinician about the presentation and the treatment option of this disease. Whenever any atypical mass of the larynx is encountered diagnosis of schwannoma should be borne in mind and treated accordingly.

References

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