Vocal Cord Schwannoma - A Rare Case

Koteswar Nalluri[1], Suresh Palukuri[2]

[1,2]Assistant Professor, Department of ENT

Katuri Medical College and Hospital, China kondrapadu, Guntur 522019, Andhra Pradesh, INDIA.

Corresponding Addresses:

[1]jampanas@yahoo.co.uk, [2]dr_bobbyin@yahoo.co.in

Case Report

Abstract: Schwannoma of vocal cord are benign tumors. Most commonly involving aryepiglottic folds or false vocal cords, schwannoma involving true vocal cords is rare. We report a case of schwannoma presenting as vocal cord polyp with hoarseness of voice and throat pain. Microlaryngeal surgical excision was done. Definite histopathological diagnosis confirmed as schwannoma.

Keywords: Histopathology, Schwannoma , Vocal cord polyp.

Introduction

Schwannoma within the larynx is very uncommon; they represent 0.1% to 1.5 % of all benign laryngeal tumors. 80% are located in the aryepiglottic fold, 20% in false or true vocal cords [(3-5)] they usually grow submucosal with a few reports described as polypoidal growth [(4)].we report a case of 75 year old male patient presented schwannoma as vocal cord polyp.

Case report

A case of 75 year old male patient came with complaints of throat pain since 6 months and hoarseness of voice since 6 months. Throat pain was insidious in onset and gradually progressive. Hoarseness of voice was insidious in onset and gradually progressive in nature. No history of difficulty in breathing. No history of difficulty in swallowing. No history of vocal abuse. No history of cough with expectoration. No history of loss of weight, he was known smoker for the past 20 years. Ears, both external auditory canal and tympanic membrane were normal on examination. Anterior rhinoscopy was normal and throat as well as oropharynx was normal. Videolaryngoscopy shown (figure 1) Polypoidal mass on right vocal cord at the junction of anterior 1/3 and posterior 2/3 region, which was freely mobile on phonation .Vestibular fold oedema was observed. Routine investigations were done and cardiac fitness was taken. Microlaryngeal surgical excision was done under general anaesthesia and the polyp was sent for biopsy, post operative period was uneventful. Antibiotics, analgesics and voice rest were given during post operative period. Histopathological report was suggestive of schwannoma (figure 2) showing antoni a and antoni b cells and (figure 3) showing verocay bodies. Post operativ (3 months) follow up video laryngoscopy shown normal vocal cords with no recurrence (figure 4).

Figure 1: Right vocal cord polyp

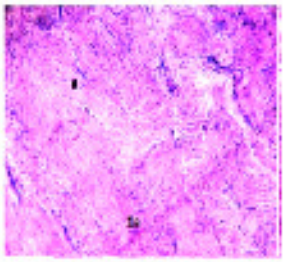

Figure 2: Antoni A and Antoni B cells

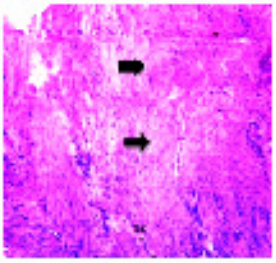

Figure 3: Verocay bodies

Figure 4: Post operative follow up picture

Discussion

Schwannomas and neurofibromas are two different types of neurogenic tumors of larynx comprising 0.1% to 1.5% of all benign laryngeal tumors [(2)]. Malignant transformation is reported in 10% of neurofibromas while in schwannoma it is very uncommon [(1)]. Neurogenic tumors of the larynx are most frequently located in the aryepiglottic fold or in the true or false vocal cords [(3-5)]. They usually present with hoarseness of voice, globus sensation, dysphagia, dyspnoea on exertion [(1,4)]. The diagnostic workup should include indirect and fiberoptic laryngoscopy which usually reveals a submucosal mass in the described location. A definite diagnosis can only be made histologically. Schwannomas almost exclusively are comprised of spindle cells with long, oval nuclei and indistinct cell membranes. These Schwann cells either form cellular regions with compact cell bundles with nuclei lining up in palisades (Antoni A regions) or edematous regions with loosely arranged cells in a myxoid matrix prone to degeneration (Antoni B

regions) [1,4]. Two compact rows of well aligned nuclei separated by fibrillary cell processes are called Verocay bodies. Axons are usually not found in Schwannomas[4]. A clear capsule, the presence of Antoni A and/or Antoni B areas, and intense immunoreactivity for S-100 protein are criteria for the histologic diagnosis of Schwannoma [1,4]. The only effective therapeutic option in benign neurogenic laryngeal tumors is complete resection. Since the diagnosis can only be made histologically, direct laryngoscopy with biopsy of the lesion will usually be the first step in treatment [4,7,8]. However, in Schwannoma biopsy can be difficult due to the solid capsule of the tumor [4,9]. Complete surgical excision of the tumor should be planned according to the individual requirements of each case. In smaller tumors, endoscopic (laser-assisted) resection of the tumor can be a reasonable treatment option [1,7,8].

Conclusion

Vocalcord schwannoma is a very rare benign laryngeal tumor. Complete surgical excision is the treatment of choice. Confirmatory diagnosis can be made by histopathological examination.

Acknowledgement

Authors would like to thank Dr.Mythili Rani for her support throughout the study.

References

1. Zbaren P, Markwalder R: Schwannoma of the true vocal cord. Otolaryngol Head Neck Surg 1999, 121(6):837-9.
2. Jones SR, Myers EN, Barnes L: Benign neoplasms of the larynx. Otolaryngol Clin North Am 1984, 17(1):151-78.
3. Palva T, Jokinen K, Karja J: Neurilemmoma (schwannoma) of the larynx. J Laryngol Otol 1975, 89(2):203-7.
4. Rosen FS, Pou AM, Quinn FB Jr: Obstructive supraglottic schwannoma: a case report and review of the literature. Laryngoscope 2002, 112(6):997-1002.
5. Fini-Storchi I, Frosini P: Laryngeal neurinoma. A case report and review. ORL J Otorhinolaryngol Relat Spec 1997, 59(3):182-5.
6. Gardner PM, Jentzen JM, Komorowski RA, Harb JM: Asphyxial death caused by a laryngeal schwannoma: a case report. J Laryngol Otol 1997, 111(12):1171-3.
7. Taylor J, Stiefel M, Park SY: Schwannoma of the true vocal fold: A rare diagnosis. Ear Nose Throat J 2006, 85(1):52-3.
8. Rognone E, Rossi A, Conte M, Nozza P, Tarantino V, Fibbi A, Saetti R, Cutrone C, Tortori-Donati P: Laryngeal schwannoma in an 8-year-old boy with inspiratory dyspnea. Head Neck 2007, 29(10):972-5.
9. Syeda F, Hussain A: Schwannoma of the larynx: a case report. Ear Nose Throat J 2005, 84(11):732-4.