

Saccular Cyst of the Larynx: A Case Report with Review of Literature

Sapna Nambiar, Jasmine AM, John Mathai

Department of ENT, Government Medical College, Kottayam*

ABSTRACT

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Saccular cyst of the larynx is an uncommon laryngeal anomaly that has undergone evolution over the years owing to advances in diagnostic and treatment modalities. These lesions should be fully evaluated and surgically excised as they can mimic or be associated with other more serious laryngeal pathology including carcinoma of the larynx. This article aims at an update in the management of saccular cyst of the larynx with review of literature.

Keywords: Saccular cyst, Larynx

*See End Note for complete author details

INTRODUCTION

The laryngeal saccular cyst is an unusual anomaly that can mimic or be associated with other more life threatening conditions.¹ The symptoms commonly include hoarseness, muffled voice, dyspnoea or appearance of a neck mass. The laryngoscopic examination usually reveals a smooth bulge in the false vocal cord area which can compromise the airway with increasing size. However a high index of suspicion, prompt recognition and appropriate treatment early in the course of patient's disease helps prevent serious complications and morbidity. We present a patient with laryngeal saccular cyst wherein the early diagnosis and radiological assessment enabled effective treatment.

CASE REPORT

A 64 year old male presented with a 6 months history of change of voice. He had no symptoms of dyspnoea, dysphagia, odynophagia or neck mass. He had no prior history of laryngeal trauma or vocal abuse. He was a chronic smoker having a 36 pack year smoking history. On clinical examination he had breathy dysphonia. There were no palpable neck masses or cervical lymphadenopathy. Indirect laryngoscopy revealed a globular mass with a smooth surface arising from the anterior aspect of the right laryngeal ventricle protruding into the airway and obliterating the visualisation of the right vocal cord. The left vocal cord was normal but due to the mass the complete adduction of the vocal cords was not possible thereby resulting in a

phonatory gap responsible for the breathy dysphonia. The patient was advised contrast enhanced CT scan of the neck which also revealed a relatively well defined, mildly enhancing soft tissue density lesion noted in the right paraglottic space in sub mucosal location, with no evidence of extension into soft tissues of the neck. The provisional diagnosis of a benign laryngeal mass was considered and fitness obtained for direct micro-laryngoscopy and excision under general anaesthesia.

Under general anaesthesia a direct rigid laryngoscope was introduced and the cystic mass was removed completely under visualisation with adjacent part of the mucosa of the ventricle. The specimen was sent for Histopathological examination. The postoperative recovery was uneventful. Tracheostomy was kept as a standby procedure but the need for same averted using small endotracheal tube during surgery and with postoperative steroids. Histopathological examination revealed a benign epithelial cyst with no evidence of malignancy. Hence a final diagnosis of saccular cyst of larynx was made.

DISCUSSION

The laryngeal saccule is a narrow prolongation of the ventricle, extending superiorly between the false vocal fold and the lamina of the thyroid cartilage.² It is lined by ciliated respiratory epithelium, contains mucous glands and its function is the lubrication of the vibrating vocal folds. A saccular cyst of the larynx is a mucous filled dilatation of the laryngeal saccule which

Corresponding Author:

Dr. Sapna Nambiar, Assistant Professor in ENT, Department of Otolaryngology Head & Neck Surgery, Government Medical College, Kottayam. E-mail: snambiar25@gmail.com

results due to obstruction.

The classification and nomenclature of saccular cysts have been well defined in literature. DeSanto, Devine and Weiland.³ classified all cystic laryngeal lesions into saccular, ductal and thyroid cartilage foraminal cysts. Saccular cysts have been further classified into anterior and lateral saccular cysts. Recently Forte, Fuoco and James.⁴ proposed a new classification dividing laryngeal cysts into two types:- A cyst that is radiologically and clinically determined to be intra laryngeal and can be safely and completely excised endoscopically is classified as Type I. Those with extra laryngeal extension are classified as Type II, sub classified into IIa (endodermal elements only) and IIb (endodermal and mesodermal elements - laryngotracheal duplication or diverticulum).

The laryngeal saccular cyst probably represents 25% of all laryngeal cysts, with sub mucosal cysts of the true vocal folds being the most common.⁵ Clinically a high index of suspicion in patients who present with dysphonia and dyspnoea is required. The condition must be differentiated from laryngoceles which is an air filled sac that communicates with the laryngeal lumen via a dilated saccule. The incidence of carcinoma associated with saccular cysts and laryngoceles is well documented and ranges from 5% to 30%.⁶

Pre operative imaging is a useful tool for selecting the ideal approach for proper mapping and surgical planning. Fine cut (1- 1.5mm) CT scan of larynx with contrast is recommended to confirm the diagnosis and to define the extent of the cyst.⁷ Commonly hoarseness of voice, airway compromise and concerns of malignancy are the indications for surgery. The management of these lesions has evolved over time, from needle aspiration and decompression to complete excision. The early treatment options were plagued by difficulties with recurrence and occasionally the need for tracheostomy. However with current, improved endoscopic techniques successful resolution of anterior and combined saccular cysts can be achieved without the need for an external neck incision and with a fairly low risk of recurrence.⁸ Tracheostomy is also no longer routinely performed for the management of these lesions.⁹

CONCLUSION

Saccular cyst of the larynx although uncommon can mimic other types of more common laryngeal

anomalies and should be included in the differential of any laryngeal mass. Thorough clinical and radiological assessment is important in evaluating and treating this condition, as strong evidence supporting the association with carcinoma exists. Once recognized early in the presentation, they can be effectively and safely treated with current endoscopic techniques.

END NOTE

Author Information

1. Dr. Sapna Nambiar, Assistant Professor in ENT, Department of Otolaryngology Head & Neck Surgery, Government Medical College, Kottayam
2. Dr. Jasmine AM, Postgraduate Resident in ENT, Government Medical College, Kottayam
3. Dr. John Mathai, Professor in ENT, Department of Otolaryngology Head & Neck Surgery, Government Medical College, Kottayam

Conflict of Interest: The authors declare that they have no conflict of interest.

Editorial Comments: Saccular cyst of the Larynx is described as an unusual cyst with a lot of features that mimic or co-exist with other life threatening conditions. The case report is presented with review of literature.

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