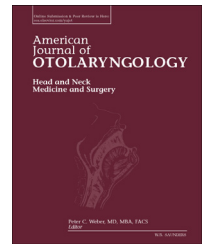


Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

ScienceDirect

[www.elsevier.com/locate/amjoto](http://www.elsevier.com/locate/amjoto)

# Airway management in an infant with a giant vallecular cyst

David A. Reiersen\*, Anil A. Gungor

LSU-Health Shreveport Department of Otolaryngology/Head & Neck Surgery

## ARTICLE INFO

### Article history:

Received 11 October 2013

## ABSTRACT

Review vallecular cysts and report the surgical management of a vallecular cyst of unusual size with near-complete obliteration of the airway.

This case report describes an unusually large mucus retention cyst in an 8-week-old infant that was diagnosed during induction of general anesthesia and prevented visualization of airway. Intubation was performed after rapid aspiration of the cyst contents.

**Conclusion:** Vallecular cysts can present as a life-threatening obstruction in infants and complicate the establishment of an airway after induction of anesthesia. In our case, rapid thinking and aspiration of the cyst contents helped establish the airway for definitive CO<sub>2</sub> laser excision.

© 2014 Elsevier Inc. All rights reserved.

## 1. Introduction

Vallecular cysts are a rare entity and typically present with respiratory and feeding difficulties due to obstruction and pressure at the laryngeal inlet. The difficulties may manifest as inspiratory stridor, chest wall retraction, increase work-of-breathing, apneas, cyanosis, and failure to thrive. Large cysts are more likely to be diagnosed at younger ages because larger cysts are more likely to cause symptoms that will lead to subsequent diagnostic work-up and treatment. Large vallecular cysts have also been described in the literature to be diagnosed at the time of induction of general anesthesia resulting in a difficult endotracheal intubation due to obstruction of the glottis. Adult vallecular cysts have been described as asymptomatic. When seen in adults the symptoms are subtle and include globus and voice changes. The contrasting difference in symptoms owes itself to the difference in the relative size of the airway [1].

A vallecular cyst has been classified as a ductal cyst by DeSanto in 1970. The ductal cyst, also known as mucus retention cysts, results from retention of mucus within an obstructed collecting duct of a submucosal gland. Ductal cysts are superficial and can occur at any site within the

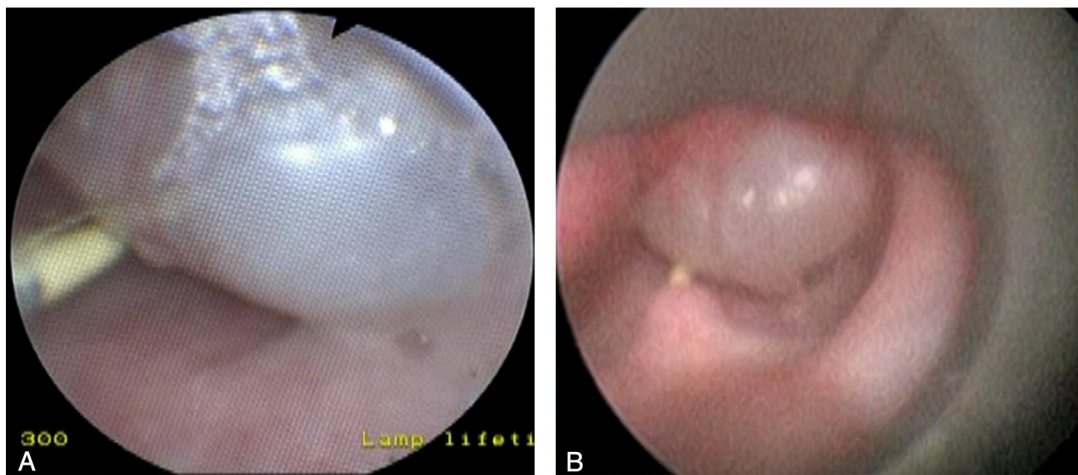
laryngopharynx (excluding the free edge of the vocal fold) due to the presence of mucosal glands. Most ductal cysts are <1 cm diameter however they may be significantly larger. The cells of the cyst are of the ductal cell type (squamous or respiratory epithelium) and not of acinar cells (supporting origin from dilation of ducts and not of distended glands) [2].

Ductal cysts at the tongue base and vallecula are the most common in children [3]. DeSanto described that among the ductal cysts found about the epiglottis, 48 of the 67 cysts occurred at the lingual surface of the epiglottis. These cysts are superficial, resulting from obstruction of the submucosal glands, and are confined to the submucosal layer. Mucus production results in further expansion of the ductal cyst. Symptoms result from direct obstruction of the airway directly or from distortion of the epiglottis and the laryngeal inlet [1].

Vallecular cysts have been described to have a high incidence of recurrence with simple needle aspiration. Mitchel in 1987 described 3 of 3 cyst recurring following simple aspiration. Vallecular cysts are typically removed by opening widely to prevent recurrence [4]. Carbon dioxide laser ablation of the inner epithelial lining of the cyst wall has been described to reduce risk of recurrence [3,5]. Patients are

\* Corresponding author.

E-mail address: [dreier@lsuhsc.edu](mailto:dreier@lsuhsc.edu) (D.A. Reiersen).

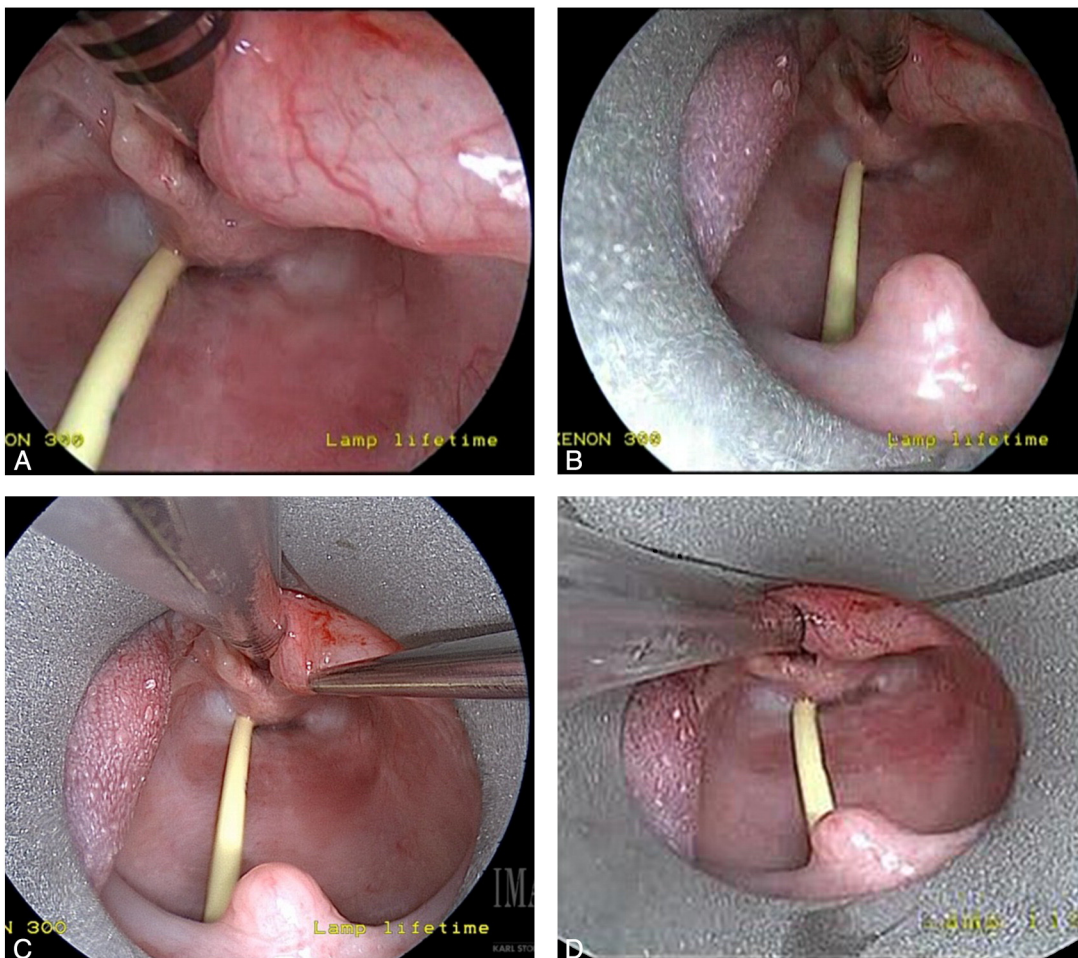


**Fig. 1** – Vallecular cyst as visualized during flexible laryngoscopic exam (A). Vallecular cyst visualized by direct laryngoscopic exam (B).

generally described to have an immediate improvement in symptoms and post-operative care is limited to that needed for the patient's comorbid conditions (such as reflux or laryngomalacia). Of the associated anomalies, laryngomalacia is the most common [1].

## 2. Case report

An 8 week old male infant presented to the emergency room with failure to thrive, weak cry, progressive inspiratory stridor,



**Fig. 2** – After needle aspiration and intubation the cyst was further opened and drained of its contents (A-D).

Download English Version:

<https://daneshyari.com/en/article/4103514>

Download Persian Version:

<https://daneshyari.com/article/4103514>

[Daneshyari.com](https://daneshyari.com)