Global Journal of
Otolaryngology
ISSN 2474-7556

Juniper Publishers
key to the Researchers

Case Report
Volume 20 Issue 2 - June 2019
DOI: 10.19080/GJO.2019.20.556032

Glob J Otolaryngol

Congenital Laryngeal Cyst

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Submission: May 24, 2019; **Published:** June 04, 2019

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Abstract

Benign congenital laryngeal cysts are a rare clinical entity, with potential for severe airway obstruction, leading sometimes to severe respiratory distress and death. They oftenly arise from the vallecula, the aryepiglottic fold, and the saccule ventricle, and rarely from the epiglottis. In this report, a 10-month-old infant with a severe respiratory distress caused by congenital laryngeal cyst is presented.

Keywords: Congenital Laryngeal Cyst; Respiratory Distress; Stridor

Introduction

Congenital laryngeal cysts are rare, but easily managed once the diagnosis is made. Delay in making a correct diagnosis may lead to serious and fatal consequences. Clinical presentation consists of inspiratory stridor, and varying degrees of upper airway obstruction that usually present soon after birth or during the first weeks or mouths of life. They are usually diagnosed by laryngoscopy. In fact, there is no consensus on the optimal treatment, however several surgical procedures are proposed: endoscopic excision, needle aspiration, de-roofing, external laryngofissure, and lateral pharyngotomy. The following report describes the case of 10 mouths year old infant with a severe airway distress and stridor caused by a congenital laryngeal cyst.

Clinical Report

A 10-month-old infant was initially admitted into pediatric intensive care unit with respiratory distress. Suspecting infectious etiology, the patient had received antibiotics. However, symptoms gradually worsened, and the patient developed laryngeal stridor, for witch, he was referred to ENT department for further management. Trans nasal flexible laryngoscopy was made and revealed a supraglottic mass reducing the laryngeal lumen. The exploration was completed by a cervical CT scan objectifying a left paramedian cystic mass reducing the laryngeal lumen. Under general anesthesia, the patient underwent direct laryngoscopy, which confirmed a supraglottic cystic mass of the left aryepiglottic fold. The lesion was removed entirely, and the post-operative period was uneventful. The patient's breathing was quiet and satisfying (Figure 1).

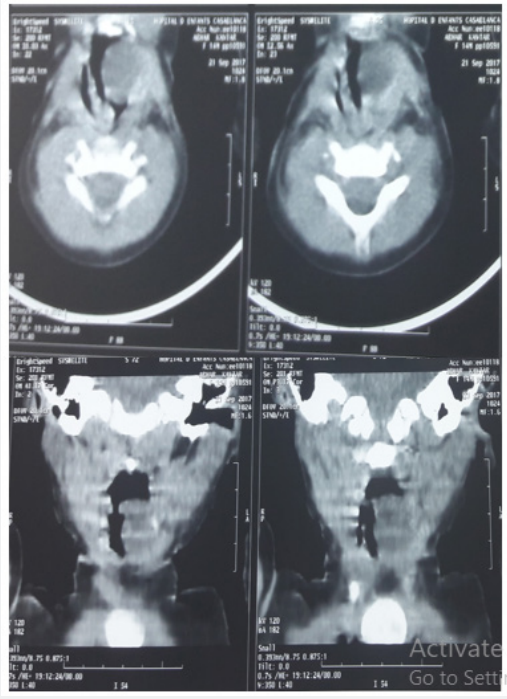

Figure 1: Axial and coronal sections of the larynx showing a liquid tumefacion by left median glotto sus glottic.

Discussion

Congenital laryngeal cysts are rare but can be unfortunately fatal [1]. The majority of congenital laryngeal cysts arise from the vallecula, the saccule of the ventricle, and the aryepiglottic

fold, and rarely frome the epiglottis [2] (Figure 2). They are divided into ductual and saccular types based on the location of the cyst and the surface mucosa [3]. The ductual type is considered to be caused by the obstruction of submucosal ducts, whereas the saccular type is caused by the obstruction of opening to the saccule of the ventricle [4]. Many classifications have been proposed, but no international classification has been established yet [5]. Congenital laryngeal cysts are responsible of upper airways obstruction which can be potentially life-threatening. The most common symptoms are inspiratory stridor, dyspnea, cyanosis, abnormal voice and difficulty with feeding. Most infants with congenital laryngeal cysts develop symptoms immediately after birth or during the early infancy. However, they can be misdiagnosed as a laryngomalacia frequent at this age [1]. Fiber optic laryngoscopy and direct laryngoscopy are used to confirm and show the exact site of the cyst if there is no severe respiratory distress. In case of severe respiratory distress, tracheostomy can be necessary.

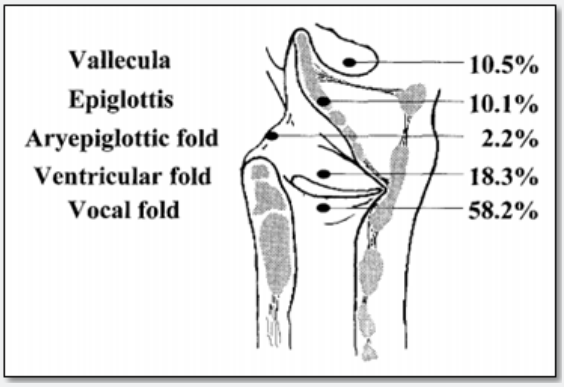

Figure 2: Distribution of laryngeal cysts.

Other modalities, as CT scan, MRI may be performed for further evaluation [6]. The best treatment consists in the entire removal of the cyst [7]. For which many surgical procedures are proposed. They include endoscopic excision, de-roofing, needle aspiration, lateral pharyngotomy; and this after securing the airway generally with endotracheal intubation or with a tracheostomy sometimes [8]. An external or cervical approach is also described. In fact, endoscopic treatment is considered as the treatment of choice while the external approach is required for recurrence [9]. In case of endoscopic procedure, they are two choices. The first is needle aspiration considered insufficient because of the high risk of refitment of the cyst. The second possibility recommended is endoscopic unroofing or complete excision with micro-instrument or CO2 laser. In case of large cyst or recurrence, cervical approach is recommended, since it offers a good exposure of the pharyngeal space [4].

Conclusion

Congenital laryngeal cysts are a rare and uncommon cause of airway obstruction leading to inspiratory stridor during the neonatal period or early infancy. Trans Nadal flexible laryngoscopy is useful in establishing the diagnosis as well as for the following up. The entire excision of the cyst being the best treatment can be made by an endoscopic approach or through an external cervical procedure.

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How to cite this article: Khdim Mouna, Douimi Loubna, Choukry Karim, Rouadi Sami, Abada Reda, et al. Congenital Laryngeal Cyst. Glob J Oto, 2019; 20(2): 556032. DOI: 10.19080/GJO.2019.20.556032

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