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CONGENITAL VALLECULAR CYST: STRIDOR IN INFANT

Abstract

A common cause of stridor in infants and young children is laryngomalacia however awareness and a careful workup will help to identify and manage the few cases of vallecular cyst which may have similar presentation as laryngomalacia. Vallecular cyst is a benign condition which may lead to stridor and life threatening upper airway obstruction in infants and young children. It can present as apnoea, feeding difficulties and failure to thrive. Direct laryngoscopy is accepted as the choice of diagnostic method and marsupialization of the cyst is the preferred choice of treatment. We describe a case of vallecular cyst who presented to our out patient department in stridor.

Keywords: Congenital vallecular cyst, Infant, Stridor.

Introduction

Congenital vallecular cysts may be symptomatic immediately after birth and sometimes may present after a certain period. We present a two year old boy who was brought to the outpatient department of otorhinolaryngology in stridor. He was immediately taken to operation theatre and de-roofing of the cyst was done.

Case report

A two year old child was brought to the ENT OPD with the complains of noisy breathing for last six months and difficulty in breathing for last two days. He was being treated as a case of laryngomalacia in a different center. On examination, the child was in stridor, very irritable, mouth breathing with subcostal indrawings. On the examination of oral cavity we could see a pink, globular swelling occupying almost whole of the oropharynx which seemed to be arising from the left lateral pharyngeal wall. The child was immediately taken to operation theatre for tracheostomy and examination under anesthesia .

In the operation theatre, oral intubation was done . On assessing the swelling it was a tense cyst and on aspiration 12 ml of pus was aspirated (Figure I). As the swelling shrunk we could see it was closely adhered to the left tonsil. A possible diagnosis of left intratonsillar abscess was made so left tonsillectomy was carried out. However, after the tonsillectomy it was seen that the swelling was separate from tonsil. As the tongue was pulled forward we could see it was arising from the left vallecula with adhesions to the surrounding structures due to the infection and inflammation. So, finally deroofing was carried out. As tongue base was handled and it was a infected cyst, we also performed tracheostomy to prevent airway obstruction. He was given intravenous antibiotics and steroids postoperatively. The stoma of tracheostomy site was closed in fourth post operative day and the child was discharged on 6th postoperative day.

The histopathological report was benign cystic lesion with inflammatory changes. On the follow up, after a week, the child was in good health with normal feeding, breathing and no more noisy breathing.

Figure I : Tense cystic mass (shown by the black arrow) occupying the oropharynx, seemed to be arising from left tonsil.

Figure II: Laryngoscopy performed two weeks after the surgery, left vallecula is healing (shown by the black arrow)

Discussion

Vallecular cyst is a rare benign lesion which commonly arises from the lingual surface of the epiglottic region. It is known as epiglottic mucous retention cyst or base of the tongue cyst and is classified as a ductal cyst that results from obstruction and retention of mucus in collecting ducts of submucosal glands containing clear and non-infected fluid.[1] Histologically, the cyst has an external lining of squamous epithelium and may contain respiratory epithelium with mucous glands.[2]

Infants are affected most often but they have also been reported in older children and adults.[3] Small cysts are asymptomatic, but when enlarged may present with stridor, feeding difficulties, voice change and respiratory distress.[2,4,5] Initially the infants and neonates may present with noisy breathing and in most of the cases they may be treated as a case of laryngomalacia.[6] In our case, the infant presented with acute stridor which must have been due to the infection and sudden increase in size in pre-existing vallecular cyst.

However the neonates and infants may sometime have different presentations. They may present with failure to thrive, feeding difficulties and cyanotic spells.[7,8] Flexile nasopharyngolaryngoscopy performed in neonates and infants with breathing difficulties and stridor which is helpful in diagnosis. If not possible then lateral neck X-ray, neck sonogram and barium oesophagogram can be helpful.[2]

The differential diagnosis of cystic mass in the base of the tongue could be hemangioma, cystic hygroma, teratoma, hamartoma, dermoid cyst, lymphangioma, thyroglossal duct cyst or thyroid remnant cyst.[9]

The mainstay of treatment of vallecular cyst is surgical excision however there are alternative modalities such as endoscopic marsupialization, excision and de-roofing. Endoscopic marsupialization is the recommended surgical approach in infants.[9] Aspiration of the cyst is not recommended as it has high recurrence rate but if the cyst is large and obstructing the surgical field aspiration can be followed by surgical excision as performed in our case. In our case, as the cyst was infected and adhered to the left tonsil and the left pharyngeal wall, initially there was confusion in the origin of the cyst. However after left tonsillectomy, the cyst could be seen arising from the vallecula.

Vallecullar cysts, when unrecognized could have chronic problems and sometimes severe presentation such as stridor which could be fatal if not responded timely.

Reference

1. Parelkar SV. An Unusual Presentation of Vallecular Cyst with near Fatal Respiratory Distress and Management Using Conventional Laparoscopic Instruments. J Surg Tech. 2012;4:118-120.
1. Ierrez JP, Berkowitz RG, Robertson CF. Vallecular cysts in newborns and young infants. Pediatr Pulmonol 1999;27:282–5
2. Cheng SS, Forte V, Shah VS. Symptomatic Congenital Vallecular Cyst in a Neonate. J Pediatr.2009;155:446.
3. Ahrens B, Lammert I, Schmitt M, Wahn U, Paul K, Niggemann B. Life threatening vallecular cyst in a 3-month-old infant: Case report and literature review. ClinPediatr (Phila) 2004;43:287–90.
4. Oluwole M. Congenital vallecular cyst, a cause of failure to thrive. Br J ClinPract. 1996;50:170.
5. Holinger LD. Etiology of stridor in the neonate, infant and child. Annals of Otology, Rhinology and Laryngology.1980;89(5):397–400.
6. M Yang, MJ Kang, J Hong. A case of congenital vallecular cyst associated with gastroesophageal reflux presenting with stridor, feeding cyanosis and failure to thrive. Korean journal of pediatrics. 2008;5:775-79.
7. Tuncer U, Aydogen LB, Soylu L. Vallecular cyst: a cause of failure to thrive in an infant. Int J PediatrOtorhinolaryngol. 2002;65(2):133-5.
8. Santiago W, Rybak LP, Bass RM. Thyroglossal duct cyst of the tongue. J Otolaryngol. 1985;14:261-4
9. Prowse S, Knight L. Congenital cysts of the infant larynx. Int J PediatrOtorhinolaryngol. 2012; 76:708-1