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Silent/weak cry due to congenital subglottic cyst: A rare case with intriguing diagnosis and simple management

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Abstract

Congenital subglottic cyst is rare anomaly which can be fatal if not diagnosed timely. We are reporting a newborn who presented with silent/ weak cry at birth, noisy breathing and difficulty in breast feeding at 3rd day of life. CT scan revealed a well defined hypodense cystic lesion in the subglottic region producing mass effect on the airway leading to narrowing of subglottic, measuring 2.5 mm (sagittal section). The child underwent surgery (microlaryngeal cyst excision) at the age of 2 month for the subglottic cyst that was visualized just below the vocal cord. Child recovered fully at 3 months of age.

Keywords: silent/weak cry, subglottic cyst, noisy breathing, stridor

Introduction

At the time of birth, the infant develops nasal breathing as they are obligatory nasal breathers and if not breathing, is an immediate cause for concern. But, what about an infant who is not able to cry or there is a weak cry? There are many congenital anomaly of the larynx leading to silent/weak cry and breathing difficulty in newborns which can lead to mortality.

Congenital laryngeal cysts are rare, but can easily managed once an early diagnosis is made [1, 2]. 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 months of life [3]. They are usually diagnosed by fiber optic laryngoscopy [4]. In fact, there is no consensus on the optimal treatment, however several surgical procedures are proposed: endoscopic excision, needle aspiration, marsupialisation, external laryngofissure, and lateral pharyngotomy (in extreme cases) [3, 5, 8]

Aim: The main aim of the study is to signify rare entities i.e subglottic cyst can be fatal if not diagnosed correctly.

Case Report

A 39 week term baby was delivered by full term normal vaginal delivery and cried immediately after birth. After a day, it was noticed that she is having weak cry, she also developed noisy breathing and subsequently, difficulty in breathing from the 2nd day of life. Child was misdiagnosed with laryngomalacia and treated with adrenaline nebulization and antibiotics. But, the child continued to deteriorate and had continuous episodes of noisy breathing, difficulty in breast feeding with increased work of breathing. Then child underwent fiber optic laryngography (FOL) which showed a cystic swelling in subglottic region, which was further confirmed by CT Scan. CT Scan finding showed a well defined hypodense cystic lesion measures approximately 7.6 mm (SI)X5.6mm(AP)X4.7mm(ML) in the subglottic region producing mass effect over the subglottic airway leading to narrowing of subglottic airway and the lumen of subglottic airway at the level of lesion measures 2.5 mm (sagittal section).

Treatment: At the age of 2 month, the cyst excised by microlaryngeal surgery under general anesthesia by introducing an appropriate size of laryngoscope and a subglottic cyst was

visualized just below the vocal cord under microscope. Child was kept under observation for 2 days and discharged on 3rd day.

Treatment on discharge

1. Syp. Augmentin 2.5 ml TDS for 5 days
2. Syp PCM 2.5 ml X 3days SOS
3. Syp Prednisolone(1mg/ml)- 4ml BD X2days Then 4ml ODX2 days & Then Stop
4. Nebulization with Budecort every 8 hourly X 7days
5. Nebulization With Adrenaline every 8 hourly X7days

Discussion

Subglottic cyst is a cyst in the lower part of the larynx, just below the vocal cord, leads to airway obstruction in newborn rarely reported in India. The causes of subglottic cyst can be congenital or acquired [9]. Here we discussed a case of congenital subglottic cyst. The incidence of congenital cysts of the larynx is about 1.8 in 100,000 newborns [1, 6, 10]. The clinical manifestations of subglottic cyst can be noisy breathing, recurrent croup, hoarseness and obstructive apnea [3, 6]. In this case, newborn had silent cry with noisy breathing, difficulty in breast feeding with increased work of breathing. Subglottic cyst can be diagnosed with CTscan, MRI and endoscopic evaluation. In this case Fiber optic laryngoscopy (FOL) and CT scan done to confirm the diagnosis [3, 7]. Treatment depends on the size, location of the cyst and the degree of blockage [3]. In this case, the cyst excised under general anesthesia by introducing an appropriate size of laryngoscope and a subglottic cyst was visualized just below the vocal cord

Prognosis

Prognosis is good if diagnosed early.

Conclusion

Though, Congenital subglottic cyst is rare, it should be considered when evaluating the newborn with silent/ weak cry. All newborn should be recommended for laryngoscopy to avoid incorrect diagnosis/ delay in diagnosis which can be life threatening. Endoscopic excision with complete removal of cyst is the recourse of treatment.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms

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Conflicts of interest: There are no conflicts of interest.

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