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CASE REPORT

Endoscopic treatment of vallecular cyst in newborn

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Summary Congenital vallecular cyst is a rare disease in neonates and infants. Even though benign in nature, it owns a high potential morbidity and mortality. Stridor, dyspnea, feeding difficulties, coughing, voice changes, failure to thrive are the most common symptoms. The authors report a case of a 4-month-old infant who presented with a failure to thrive and respiratory distress due to a congenital vallecular cyst. Marsupialization was performed with total symptoms resolution.

1. Introduction

Congenital vallecular cyst represents a rare disease occurring in newborns and early childhood. Even though benign in nature, it owns a high potential morbidity and mortality [1]. Stridor, dyspnea, feeding difficulties, coughing, voice changes, failure to thrive are the most common symptoms [2,3]. In adulthood, such lesions tend to show softer symptoms and mostly, they are diagnosed incidentally [4]. The cyst arises from submucosal glands obstructed and it grows for the pooling of secretions [5]. The authors report a case of a 4-month-old infant presenting failure to thrive and respiratory distress due to the presence of a vallecular cyst and the treatment adopted in this case.

2. Case report

A 4-month-old infant presented with a perinatal history of dyspnea worsening with crying. Cyanosis or stridor was present. Backward bending of the head was present. Failure to thrive was observed with only 1 kg weight gain in the first 3 months. In the meanwhile, recurrent episodes of vomiting occurred after feeding. At the third month, he was admitted in another pediatric department where nasogastric feeding was attempted with unsatisfactory results.

On admission in our department, the patient showed an important dyspnea, low oxygenation (84% during the sleep), opisthotonus. Neurological exam was normal. A fiberoptic endoscopy was per-

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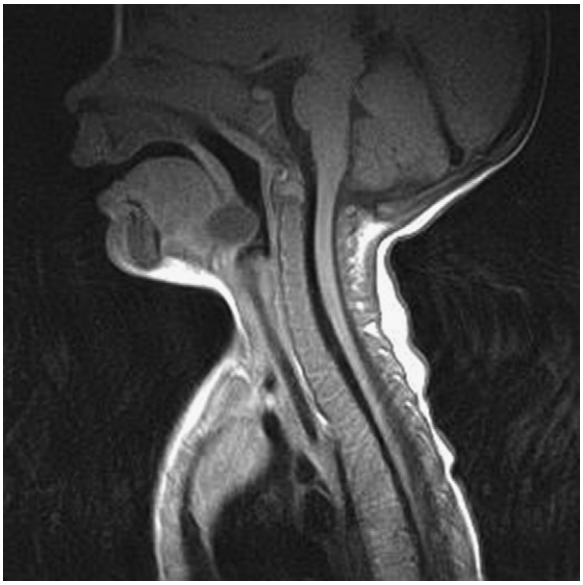

Fig. 1 T1-weighted MNR showing a hypointense rounded lesion overwhelming the epiglottis.

formed. It revealed the presence of a cyst of the vallecular space, overwhelming the epiglottis during inspiration. Magnetic nuclear resonance (MNR) confirmed the presence of a rounded lesion with a clear boundary hyperintense in the T2-weighted sequences and hypointense in the T1-weighted sequences without enhancement after gadolinium (Figs. 1 and 2). On surgical treatment, an incision was made on the lingual surface of the cyst under rigid endoscopy control and the cyst was punctured (Figs. 3 and 4). A large amount of mucoid material was suctioned and the remaining mucosa of the cyst

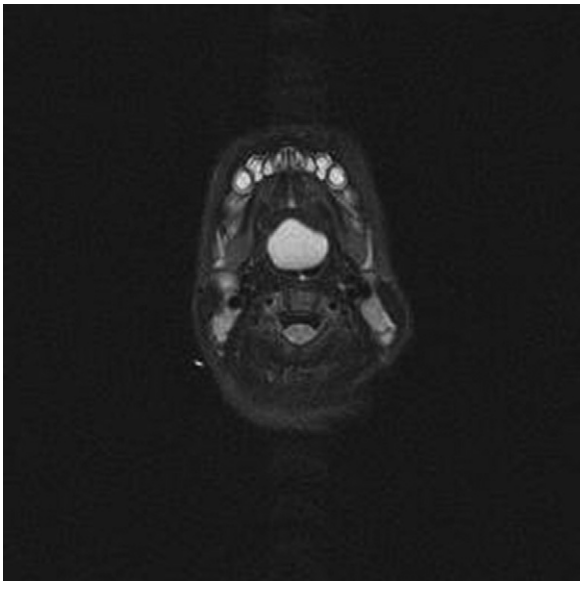

Fig. 2 T2-weighted MNR showing a hyperintense lesion.

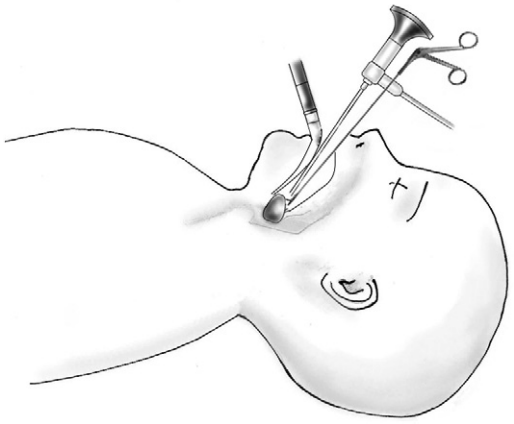

Fig. 3 Surgical setting for the treatment of the vallecular cyst.

was removed. The patient received intravenous antibiotics and was extubated immediately without any respiratory compromise. On the following day, no symptom was present and patient was discharged. A week after, at the follow-up control, a residual mucosal layer of the cyst was observed. One month after, to avoid any recurrence of disease, the remaining layer of the mucosa cyst was removed with Nd-Yag laser under endoscopic vision. Patient was dismissed on the following day. Further fiberoptic endoscopies showed normal healing process and absence of recurrence. The pathologic specimens confirmed the 2 cm $\times$ 2 cm $\times$ 1.5 cm epiglottic cyst.

3. Discussion

Laryngeal congenital cysts are rare lesions. Firstly described by Abicombie in 1881 [1], they are ana-

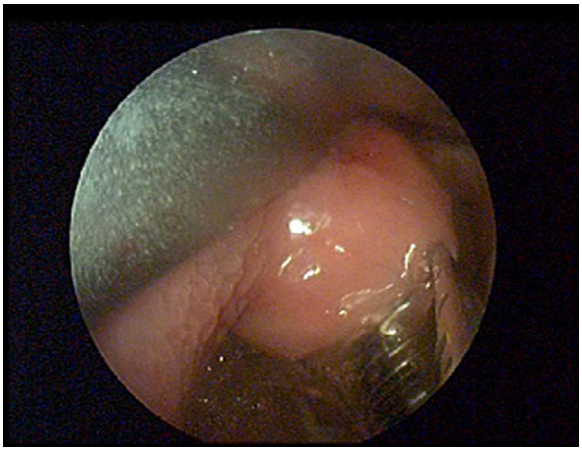

Fig. 4 Puncturing of the vallecular cyst under endoscopic control.