Endoscopic transoral complete vallecular cyst excision in a newborn using a photoangiolytic ("blue") laser

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Objective: Vallecular cysts are rare congenital lesions that can cause significant airway compromise in neonates. We report a case of a newborn with a symptomatic vallecular cyst successfully treated using a photoangiolytic ("blue") laser. Material and methods: A female neonate presented with recurrent cyanotic episodes and inspiratory stridor shortly after birth. Flexible endoscopy revealed a vallecular cyst displacing the epiglottis posteriorly, causing it to prolapse into the rima glottidis during inspiration. The MRI confirmed the working diagnosis of a benign cystic lesion. Using a transoral laryngomicroscopy approach, complete excision was performed with a photoangiolytic ("blue") laser. Results: This approach, combined with the photoangiolytic properties of the laser, enabled complete excision with simultaneous cutting and effective hemostasis. The patient was extubated the same day, without stridor, and resumed breastfeeding shortly thereafter. Postoperative endoscopy demonstrated only minimal edema. The pathology report confirmed a benign retention cyst. Conclusion: Vallecular cysts, though rare, should be considered in neonates with stridor, feeding difficulties, or cyanotic episodes. Early recognition and surgical management are essential to prevent airway obstruction. Photoangiolytic laser excision offers a safe, effective, and minimally invasive treatment option with rapid recovery.

Key words: vallecular cyst, neonate, photoangiolytic laser