Diagnosis and Treatment of Pediatric Vallecular Cysts and Pseudocysts

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INTRODUCTION

Vallecular cysts (VCs) (including true vallecular cysts and vallecular pseudocysts) are rare, but well known causes of upper airway obstruction and death in newborns and neonates. The differential diagnosis for vallecular masses in the neonate and child is limited, and Vallecular cysts (VC) (including true vallecular cysts and vallecular pseudocysts) are rare, but well known causes of upper airway obstruction and death in newborns and neonates.

METHODS AND MATERIALS

The primary aim of this study was to determine the optimal surgical treatment of VCs and PC. The secondary aim was to identify risk factors associated with the development of VCs and PC. The study was a retrospective chart review of patients with VCs and PC who underwent surgical treatment at The Children’s Hospital of Philadelphia (CHOP) between 1997 and 2009. The inclusion criteria for this retrospective review included all children (aged 0-18 years) who had undergone surgery for a VC at CHOP over the previous 12 years. Exclusion criteria included all patients with an incomplete medical record or a medical record that was not available for review. The data were analyzed for statistical significance using a two-tailed Fischer’s Exact Test.

RESULTS

Twelve children were identified who met the inclusion criteria. Eight were male and four were female. Age range was from 3 days to 13 years, mean 19 months. All but one patient (90%), the cyst was opened during the procedure and this penetration did not affect surgical success. The prevalence of concurrent upper aero-digestive tract disorders was 67%.

Pre-op Diagnosis & Evaluation

All 12 patients included in the study were diagnosed with a VC preoperatively based on NPL exam, however, NPL findings also included a VC in 10 patients (83%). Preoperative imaging was obtained in 10 patients (83%). A VC and PC were identified on preoperative imaging in 11 patients (92%). Ninety percent (11/12) patients underwent a flexible nasopharyngolaryngoscopy immediately prior to the initial surgery. Direct laryngoscopy was utilized in 3/12 patients (25%) of whom one patient had a false negative result on imaging. All patients underwent a postoperative course of medical treatment for GERD. Six patients (50%) were diagnosed with GERD at time of presentation and were being treated medically with proton-pump inhibitor therapy. Only one patient’s reflux symptoms improved postoperatively to the point that medical therapy was discontinued.