**CASE REPORT**

**Esophageal mucoceles causing airway obstruction as a complication of esophageal diversion: Two rare pediatric cases and a review of the literature**

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**ABSTRACT**

An esophageal mucocele causing airway obstruction is an exceptionally rare complication of esophageal diversion in children. In this instance, they are fluid-filled dilatations of the esophageal remnant following bipolar exclusion of the thoracic esophagus. Only six pediatric cases have been reported previously in the literature.

We present two consecutive cases of esophageal mucoceles causing respiratory distress in children following surgical exclusion of the esophagus. Bronchoscopy followed by imaging (computed tomography or magnetic resonance imaging) was used to reach the diagnosis. Complete resection of the thoracic esophagus was required in both patients.

Esophageal mucoceles can occur many years after esophageal exclusion, and the clinical features are often non-specific. Furthermore, complex co-morbidities may mask the underlying etiology of the respiratory distress, thus the diagnosis may be difficult to delineate. A high degree of suspicion, clinical awareness, and the use of the proper diagnostic tools, are essential for a diagnosis of mucoceles in children with a past history of esophageal exclusion.

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**KEYWORDS**

Esophagus; Mucocele; Airway obstruction; Respiratory distress; Stridor; Esophageal exclusion; Esophageal diversion

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1. Introduction

Indications for the surgical isolation of the esophagus in children include esophageal atresia, caustic injury, peptic strictures, tracheo-esophageal (TE) fistulas, functional disorders causing persistent dysphagia or aspiration, and perforation of the esophagus [1—4]. Malignancy is a common indication in adults [2]. Because of medical or surgical contraindications, or as a temporary measure for delayed re-anastomoses, esophageal exclusion may be preferred over complete resection [4,5]. However, surgical isolation of the esophagus is not uncommonly associated with complications [6]. These include leakage from the bypassed esophagus resulting in cervical or mediastinal abscesses [1,2,5,6], formation and progressive enlargement of an esophageal mucocele causing tracheo-bronchial compression [3—5,7—12], ulceration and development of fistulae [5,8,11,13], or infection of the mucocele itself [14,15].

Esophageal mucoceles consist of fluid-filled collections in retained esophageal segments [16] after surgical isolation takes place. They develop most commonly in the adult population, but usually remain small and asymptomatic [5]. The literature suggests an incidence of 53% in this age group, with 2.6—8.9% being symptomatic [3,5,7,8]. However,