Thoracoscopic removal of Esophageal Duplication cyst

Dr. R.K. Bagdi
Dr. Prakash Agarwal
Dr. Rajiv Padankatti
Apollo Children’s Hospital
Chennai
4 year old male
Recurrent vomiting – 3 months
Abdominal examination normal
Chest – B/L air entry equal, No added sounds
No other positive findings
X ray – chest – Normal, USG abd normal
UGI Scopy – Extrinsic compression
Barium swallow – Extrinsic mass
Barium swallow and UGI scopy
CT Scan chest
Surgery – Thoracoscopic resection
Post op view

A right thoracotomy scar
Post Op

- Recovered satisfactorily
- No post op ventilation.
- Started on Feeds Day 2\textsuperscript{nd} pod.
- ICD removed – day 3
- Discharged on 4\textsuperscript{th} POD.
- Biopsy – Cyst wall consistent with Oesophageal duplication cyst with no ectopic gastric mucosa.
A well-developed coat of smooth muscle is present.
The epithelial lining represents some portion of the alimentary tract.
Duplications are frequently intimately attached to some portion of the gastrointestinal tract.

- Cervical duplications: with fewer than 10 cases
- Thoracic and thoracoabdominal duplications: 4%
- Gastric duplications: 7%
- Duodenal duplications: 5%
- Small-intestine duplications: The small intestine is the most frequent site of gastrointestinal duplications, accounting for 44% of cases.
- Colonic duplications: 15%
- Rectal duplications: 5%
Oesophageal Duplications

- Simple epithelial-lined cysts
- Esophageal duplication, which is an embryologic duplication of a portion of the muscle and submucosa of the esophagus without epithelial duplication

**Presentation**
- Many children with esophageal cysts are asymptomatic.
- Most cysts are diagnosed during childhood.
- Most adults (67%) with cysts are symptomatic.
  - Chest pain (tightness or fullness) is the most common presentation
  - Dysphagia may also occur
  - Hematemesis can occur if gastric epithelium is present in the cyst.
- Most esophageal cysts develop in the right posteroinferior mediastinum.
- Although rare, malignant degeneration can occur
minimally invasive techniques

Thoracoscopic Resection of an Esophageal Cyst in a 4-Year-Old Girl*

Anthony P. C. Yim, MD, FCCP

Thoracoscopic resection of a 4-cm esophageal cyst was performed in a young child. The patient tolerated the procedure well with little chest wall trauma, and she was discharged on the second post-operative day. At 1-month follow-up, there were no associated complications.

(CHEST 1996; 110:545-46)

Key words: esophageal cyst; thoracoscopy; trauma

C. Merry · W. Spurbeck · T. E. Lobe

Resection of foregut-derived duplications by minimal-access surgery
ABSTRACT

Background: Foregut duplications are rare entities that include both esophageal and bronchogenic cysts. The diagnosis of foregut duplication cyst is made most often from an incidental finding on chest radiograph, or due to respiratory compromise due to mass effect or infection. Treatment consists of complete resection. Recurrences are associated with incomplete resection. Six cases of foregut duplication cysts are presented that were resected thoracoscopically.

Materials and Methods: From May 1998 to April 2003, six patients underwent thoracoscopy for resection of foregut duplication cyst. One patient required conversion to open thoracotomy due to esophageal perforation. The distribution of cysts was 4 on the left and 2 on the right; all procedures were performed with three or four ports. Single lung ventilation was used in three patients. The masses were removed via a port site after intrathoracic decompression. Chest tubes were placed in all patients, and most were removed within 12 hours.

Results: Five of six cases underwent successful thoracoscopic resection. Pathology demonstrated esophageal duplication cyst in three patients and bronchogenic cyst in the other three patients. Average hospital stay was 5.5 days. Complications included aspiration pneumonia and chest tube dislodgment. There were no deaths, and no recurrences.

Conclusion: Thoracoscopic resection is a safe and effective method of treating foregut duplications. Outcomes have been good with little short-term morbidity and no mortality. Morbidity and cosmesis are improved by avoiding thoracotomy. Thoracoscopic resection should be considered the first-line therapy for these benign masses.