Long-Term Outcomes of Gastroesophageal Reflux Disease in Patients Operated for Esophageal Atresia: A 15-Year Single-Center Experience

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INTRODUCTION

Gastroesophageal reflux disease (GERD) remains a common and challenging complication following esophageal atresia (EA) repair, with high recurrence rates and persistent treatment failures despite advances in medical and surgical therapy.

GERD affects 25% to 80% of patients with esophageal atresia (EA), and the long-term effectiveness of medical therapy and dietary management remains uncertain. About 40% of these patients eventually require anti-reflux surgery, which has reported failure rates between 7.8% and 47%.

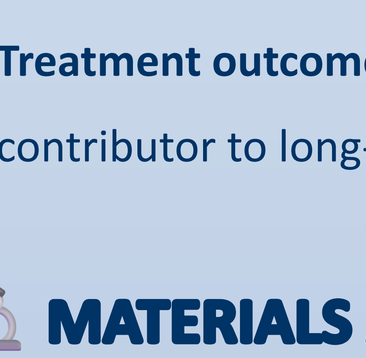
AIM

Evaluate the following aspects of GERD in patients operated for esophageal atresia (EA):

- **Incidence**
- **Clinical course**
- **Treatment outcomes**, considering its role as a major contributor to long-term morbidity

MATERIALS AND METHODS

- **Retrospective single-center review**
- (January 2010–May 2025)
- **76** postoperative esophageal atresia patients evaluated for GERD
- Excluded: deceased patients, patients lost to follow-up, and patients <1 year of age



Distribution of Treatment Modalities

- Medical treatment **84.1 %**
- Anti-reflux surgery **13.2%**
- Redo surgery **2,6%**

RESULTS

- GERD diagnosed in 23/76 (30%) after age one.
- **5 patients** required anti-reflux surgery before/with EA repair (4 early Nissen, 1 during gastric pull-up).
- Overall, **12/76 (15.8%)** underwent anti-reflux surgery.
- **Clinical resolution** with medical therapy in **16/76 (21.1%)**.
- **2 patients** needed **reoperation** for persistent GERD.
- **Type A EA** had the **highest surgical rate** ($p<0.05$).
- **9 patients** required preoperative dilatation.
- **3 patients** had recurrent pulmonary infections before surgery.

EA Type (n=12)	% Surgery
A (4)	66.7%
B (1)	100%
C (7)	10.1%

CONCLUSION

- **GERD is one of the most common long-term complications following EA repair.**
- The need for **surgical intervention** is significantly higher in patients with **Type A EA**.
- **Early diagnosis** and **individualized treatment strategies** may improve long-term outcomes.

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References: