

# Early Management of Esophageal Leak in Esophageal Atresia: Changing Paradigms

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## Abstract

**Introduction:** A leak at the esophageal anastomosis can occur in 10%-20% of cases of esophageal atresia (EA). Thoracoscopic repair is trans-pleural, with the potential development of an empyema. Standard treatment of an anastomotic leak in a stable patient is often nonoperative, which can lead to prolonged parenteral nutrition and hospitalization. Our objective is to show that early thoracoscopic redo anastomosis management is safe and feasible. **Materials and Methods:** Retrospective study of a case series of four infants, diagnosed with EA and treated with early thoracoscopic esophageal leak repair between 2013 and 2018. Variables analyzed included age, weight, type of EA, day of leak, surgical approach, time to start feeding, surgical complications, and follow-up. **Results:** Three patients were type III, and one was type I originally repaired with a thoracoscopic approach. Leaking of the anastomosis was found the second postoperative day in one patient, third day in two patients, and the fifth day in the last one. All were confirmed with an esophagogram. All patients were operated in the first 24 hours after diagnosis by the thoracoscopic approach. The site of leak was found and re-sutured. Patients started feeding between the third and fourth day through a transanastomotic tube, starting oral feeding at the seventh day after an esophagogram did not show a leak. No complications were found. Mean time to complete oral feeding was 10 days. Two patients needed esophageal dilations. Mean time of follow-up has been 33 months. **Conclusion:** Early thoracoscopic repair of an anastomotic leak can be considered an alternative to the standard nonsurgical management. The early re-suture of the area of leak is a change in paradigm, but it offers the benefits of preservation of the native esophagus, early resumption of enteral feedings, and a shorter length of parental nutrition and hospitalization.

## Keywords

**Author Keywords:** [esophageal atresia](#); [leak](#); [tracheoesophageal fistula](#); [minimal](#)

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