MANAGEMENT OF ACQUIRED TRACHEOESOPHAGEAL FISTULA WITH STERNOHYOID MUSCLE FLAP INTERPOSITION USING LATERAL APPROACH

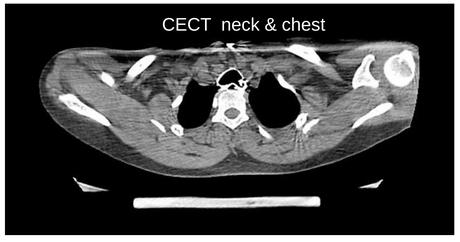
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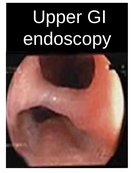
Introduction

- Acquired fistula between the airway and esophagus is a rare but challenging clinical problem.
- Regardless of the etiology, the life-threatening aspects of this condition are mostly due to the ongoing tracheobronchial contamination, with resulting pulmonary sepsis and interference with nutrition.
- Operative closure of TEF is mandatory, because spontaneous closure is exceptional and must not reasonably be expected.
- Based on the location, condition of trachea & esophagus various approaches has been described. We would like to describe operative technique of fistula repair with sternohyoid muscle interposition flap.

Case Details

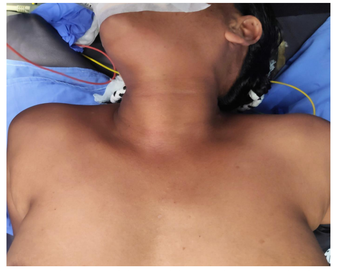
- 32 years old female had consumed organophosphorus poison one year ago following which she was resuscitated and was on ventilator support in view of respiratory failure. Following recovery from the illness in 15 days, she developed repeated chest infections along with cough while ingestion of food and significant weight loss for the past 9 months
- On evaluation, cross sectional imaging, upper GI endoscopy & bronchoscopy showed fistulous communication of ~2.4cm between trachea and esophagus at T2 level.
- After optimization, she underwent tracheoesophageal fistula repair using left sternohyoid muscle interposition flap using left cervical lateral approach with feeding jejunostomy.
- Post operatively upper GI contrast study on day 7 showed no leak, following which she was started on oral diet.







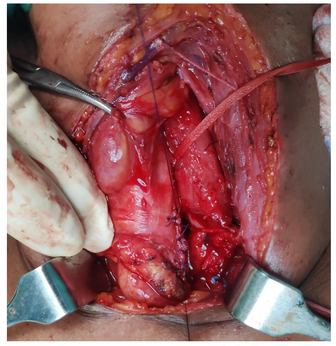
Intraoperative Details



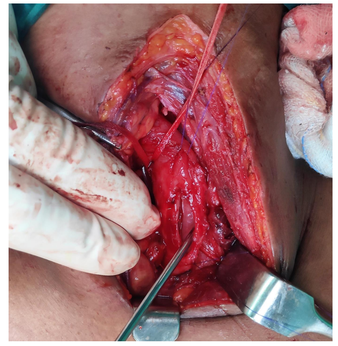
Supine position with neck extended and rotated to right



Tracheal defect with ET tube cuff seen



Tracheal defect sutured with 4-0 Polydiaxone



Esophageal defect prepared for closure



Left Sternohyoid muscle flap interposition around esophageal repair & tracheal repair buttressed with thymic fat

Conclusion

- Surgical management of acquired benign TEFs is complex & the procedure of choice, whenever possible, consists in a single stage repair of both tracheal and esophageal defects and interposition of a tissue flap to separate the suture lines.
- Lateral approach with sternohyoid muscle interposition flap is a relatively simple and effective technique.