Cervical esophagostomy facilitates endoluminal vacuum closure of large gastric conduit leak following esophagectomy

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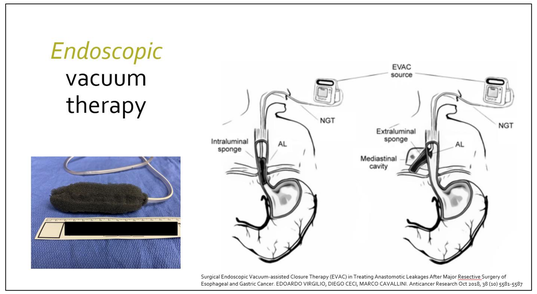
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Background

Endoluminal vacuum therapy, or EVAC, is an emerging technique to manage anastomotic leaks with promising results.[1] In a PubMed review, there are 46 published case reports utilizing EVAC.

This therapy is most commonly applied to esophageal and gastric defects.[2-3]

We present a case of a patient with a gastric conduit leak treated with EVAC through a novel approach.

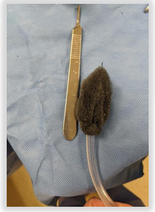


Case summary

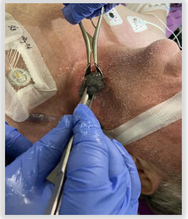
A 70 year old male presented 1 month s/p Ivor lewis esophagectomy for esophageal adenocarcinoma, with a 4 cm defect of the gastric conduit, unamenable to stenting.

Despite mediastinal drainage, antibiotics, nil per os, and observation, the defect failed to close. To increase compliance and due to anticipated length of treatment, it was mutually decided to perform esophagostomy for the application of EVAC.

An endosponge was positioned under endoscopic and fluoroscopic visualization. The sponge was exchanged 2-3 times a week for a total of 72 days (10.3 weeks) of therapy. Closure of remaining fistula was noted on week 23 from initiation of therapy.

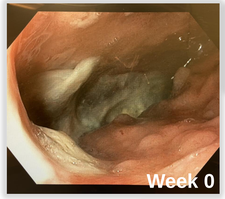


An "endosponge" was created with polyurethane foam, cut to size of defect, and sutured to the gastric end of a standard nasogastric tube.



A left sided cervical esophagostomy was created, through which the endosponge was carefully inserted.

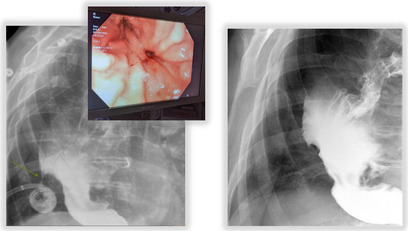
Treatment timeline



- **Connected to -100 mmHg**
- **Exchanged 2-3 times per week**
- **<u>10 weeks</u> total, 17 exchanges**
- **Fistula tract formed**







Right anterior oblique views of contrast esophagrams showing fistulous connection remaining from lumen of gastric conduit to leakage cavity (left) and closure of this tract by week 23 (right).

Discussion & Conclusions

We performed cervical esophagostomy for a similar application of EVAC to treat an esophageal perforation in 2020, with successful closure on hospital day 31.[4]

EVAC has demonstrated better rates of defect closure versus stenting, 60 to 100% in one systematic review.[5]

In a retrospective analysis of 71 patients, EVAC was superior to stenting for successful defect closure in patients with esophageal defects with no difference in length of stay or mortality.[6]

Key Takeaway:

Cervical esophagostomy may enable application of EVAC in clinical situations in which prolonged nasopharyngeal instrumentation is not preferred.

References

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