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Project Page Link: https://review.jove.com/files_upload.php?src=20861438

Title: Endoscopic Vacuum Therapy for the Treatment of Anastomotic Leakage after Total Gastrectomy with Esophagojejunostomy

Authors and Affiliations:

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Author Questionnaire

1. We have marked your project as author-provided footage, meaning you film the video yourself and provide JoVE with the footage to edit. JoVE will not send the videographer. Please confirm that this is correct.

✓ Correct

2. Microscopy: Does your protocol require the use of a dissecting or stereomicroscope for performing a complex dissection, microinjection technique, or something similar? **NO**

3. Software: Does the part of your protocol being filmed include step-by-step descriptions of software usage? **NO**

4. Proposed filming date: To help JoVE process and publish your video in a timely manner, please indicate the proposed date that your group will film here: **08/25/2025**

Authors: Since we have protocol footage, this question is applicable for filming interview statements

When you are ready to submit your video files, please contact our China Location Producer, [Yuan Yue](#).

Current Protocol Length

Number of Steps: 06

Number of Shots: 09

Introduction

Videographer: Obtain headshots for all authors available at the filming location.

- 1.1. **Yunhong Tian:** Our research focuses on endoscopic vacuum therapy for anastomotic leakage following total gastrectomy with esophagojejunostomy. We aim to evaluate its effectiveness, clarify the treatment protocol, assess its safety, and measure its clinical outcomes.
 - 1.1.1. INTERVIEW: Named talent says the statement above in an interview-style shot, looking slightly off-camera. *Suggested B roll: 2.7*

What are the most recent developments in your field of research?

- 1.2. **Yunhong Tian:** Endoscopic vacuum therapy is a breakthrough in the management of anastomotic leaks, digestive tract fistulas, and perforations. Recent advancements include the expansion of clinical indications and the refinement of treatment protocols for more precise treatment.
 - 1.2.1. INTERVIEW: Named talent says the statement above in an interview-style shot, looking slightly off-camera.

What significant findings have you established in your field?

- 1.3. **Jiaming Liao:** Endoscopic vacuum therapy is a highly effective, minimally invasive treatment for gastrointestinal anastomotic leaks, outperforming traditional methods. It accelerates healing, reduces complication rates, and lowers the need for reoperation. The implementation of standardized protocols further enhances its safety and efficacy.
 - 1.3.1. INTERVIEW: Named talent says the statement above in an interview-style shot, looking slightly off-camera. *Suggested B roll: Figure 9*

Videographer: Obtain headshots for all authors available at the filming location.

Ethics Title Card

This research follows the guidelines of the Human Research Ethics Committee of Nanchong Central Hospital

Protocol

2. Selection and Placement of EVT Drainage Device

Demonstrator: Yunhong Tian

2.1. To begin, select an FDA-approved open-cell polyurethane ether foam, shape it to fit the leakage or abscess cavity, and prepare a 6.0 French or 18 gastric drainage tube [1].

2.1.1. LAB MEDIA: 68398-1.mp4: 00:00-00:10.

2.2. Then, securely wrap the foam around the tip of the drainage tube [1]. Fix it in place using 3-0 (*Three-O*) polypropylene sutures, ensuring that all drainage side holes are completely covered [2].

2.2.1. LAB MEDIA: 68398-1.mp4: 00:14-00:30

2.2.2. LAB MEDIA: 68398-1.mp4: 01:00-01:25, 03:14-03:18, 68398-2.mp4: 00:33-00:35

2.3. After anesthetizing the patient and lubricating the endoscope, insert it into the esophagus through the mouth and advance it toward the abscess cavity [1]. Irrigate the anastomotic leak or abscess cavity with normal saline until it is fully cleared and the effluent is clear [2-TXT].

2.3.1. LAB MEDIA: 68398-3.mp4: 01:12-01:30,

2.3.2. LAB MEDIA: 68398-3.mp4: 02:10-3:10 **TXT: Adjust irrigation volume to leak/abscess size**

2.4. Now, place a nasojejunal feeding tube under endoscopic guidance [1].

2.4.1. LAB MEDIA: 68398-3.mp4: 08:36-08:50.

2.5. Using endoscopic forceps, grasp the suture line securing the tip of the tube and sponge. Then, push the sponge into the leakage cavity [1]. Under endoscopic guidance, confirm that the sponge has entered or is attached to the abscess cavity [1].

2.5.1. LAB MEDIA: 68398-4.mp4: 01:50-01:55, 03:10-03:50

2.5.2. LAB MEDIA: 68398-4.mp4: 06:20-06:30.

2.6. Then, drain the EVTDD (*E-V-T-D-D*) tube and the nasojejunal feeding tube through the same nasal cavity [1].

2.6.1. LAB MEDIA: 68398-5.mp4: 02:37-02:57

Results

3. Results

- 3.1. Endoscopy during the first endoscopic procedure revealed a 1 by 1.5 centimeter leakage at the esophagojejunal anastomosis, surrounded by a yellow-white purulent coating with visible suture lines and vascular clips [1].

3.1.1. LAB MEDIA: Figure 5.

- 3.2. The endoscopic vacuum therapy double drain device was successfully positioned to ensure effective drainage during the first procedure [1].

3.2.1. LAB MEDIA: Figure 6.

- 3.3. Endoscopy during the second procedure showed that the leakage size had reduced, with minor mucosal bleeding observed around the edges [1].

3.3.1. LAB MEDIA: Figure 7.

- 3.4. By the third procedure, the leakage had shrunk significantly, making its size difficult to measure [1].

3.4.1. LAB MEDIA: Figure 8.

- 3.5. One month after discharge, upper gastrointestinal radiography confirmed no contrast leakage, indicating full closure of the defect [1].

3.5.1. LAB MEDIA: Figure 9. Video editor: Highlight the esophageal region where no leakage is visible on the radiographic image.

1. Polyurethane

- **Pronunciation link:**
<https://dictionary.cambridge.org/pronunciation/english/polyurethane> (Cambridge Dictionary – includes American pronunciation) ([Cambridge Dictionary](#))
- **IPA (American):** /ˌpɑː.lɪˈjʊr.ə.θeɪn/
- **Phonetic Spelling:** pah-li-YUR-ə-thayn

2. Nasojejunal

- **Pronunciation link:**
<https://www.wiktionary.org/wiki/nasoejunal> (Wiktionary provides IPA American pronunciation) ([How To Pronounce](#), [Wiktionary](#))
- **IPA (American):** /ˌneɪzɔʊdʒəˈdʒuːnəl/

- **Phonetic Spelling:** nay-zoh-juh-JOO-nuhl
-

3. Esophagojejunal

- **Pronunciation link:** No confirmed link found in Merriam-Webster, Oxford, or HowToPronounce for this compound medical term.
 - **IPA (American):** /iˌsɑːfəɡoʊˌdʒɛˈdʒuːnəl/
 - **Phonetic Spelling:** ee-sah-fuh-go-joe-JOO-nuhl
-

4. Polypropylene

- **Pronunciation link:**
<https://dictionary.cambridge.org/pronunciation/english/polypropylene> (Cambridge Dictionary) ([Wiktionary](#), [How To Pronounce](#), [Forvo.com](#))
 - **IPA (American):** /ˌpɑːliˈprɑːpəˌliːn/
 - **Phonetic Spelling:** pah-lee-PRAH-puh-leen
-

5. Anastomotic (*as in anastomotic leak*)

- **Pronunciation link:**
<https://dictionary.cambridge.org/pronunciation/english/anastomotic> (Cambridge Dictionary) ([Cambridge Dictionary](#))
- **IPA (American):** /əˌnæs.təˈmɑː.tɪk/
- **Phonetic Spelling:** uh-NAS-tə-MAH-tik