

**Case Description/Methods:** We present a video demonstrating traction-wire anchoring-assisted endoscopic submucosal dissection (ESD) for the en-bloc resection of duodenal masses in 2 cases of Brunner gland proliferative lesions, these cases presented with gastrointestinal obstructive symptoms. The procedure aims to enhance visualization and facilitate safe resection without complications (bleeding and perforation).

**Discussion:** Both cases underwent successful en-bloc resection of duodenal masses using traction-wire anchoring-assisted ESD. The procedure was completed efficiently with direct visualization of the lesion stalk, ensuring complete resection and minimizing the risk of bleeding and perforation. Traction-wire anchoring-assisted ESD is a promising technique for the safe and effective removal of Brunner gland proliferative lesions in the duodenum. This approach offers enhanced control of bleeding sources and facilitates straightforward visualization and resection of these lesions.

Watch the video: <https://tinyurl.com/5cwtfyzf>

S3207

#### Percutaneous Needle Decompression for Tension Pneumoperitoneum During Gastrointestinal Endoscopy: A Step-by-Step Guide With Case Examples

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**Introduction:** Iatrogenic gastrointestinal tract perforations during endoscopy are rare but can be life-threatening due to tension pneumoperitoneum. Here we describe the technique for percutaneous needle decompression and highlight 2 case examples where it was successfully used for pneumoperitoneum occurring during advanced endoscopic resection.

**Case Description/Methods:** Case 1: A 79-year-old man with multiple comorbidities was diagnosed with a 4.5 cm adenocarcinoma in the ascending colon. He was referred to colorectal surgery but was determined to be a nonsurgical candidate. After multidisciplinary discussion, the decision was made to pursue endoscopic submucosal dissection (ESD). During ESD, a full thickness defect was noted with visible peritoneal fat. The patient developed progressive abdominal distension and elevated peak ventilatory pressures. The decision was made to perform percutaneous needle decompression. A 16-gauge venous catheter with an attached saline-filled syringe was inserted into the abdomen a few centimeters from the umbilicus and slowly advanced. Immediate release of gas followed (Video). Peak ventilatory pressures and abdominal distension improved. ESD was continued and the lesion was successfully resected. The defect was subsequently closed using through-the-scope endoclips. Case 2: A 77-year-old man underwent submucosal tunnel endoscopic resection for removal of a gastrointestinal stromal tumor (GIST) in the body of the stomach. Due to the nature of the lesion, full thickness resection needed to be performed to complete the resection. This led to progressive abdominal distension and elevated peak ventilatory pressures. Percutaneous needle decompression for pneumoperitoneum was then performed. Ventilatory pressures and abdominal distension improved. Full-thickness resection of the GIST continued and the lesion was successfully resected. Defect closure was performed using endoscopic suturing. Both patients were observed in the hospital overnight and were discharged the following day without further complications.

**Discussion:** Intraprocedural percutaneous needle decompression is a simple and cheap intervention which can be used for management of pneumoperitoneum and can lead to stabilization of hemodynamic compromise, allowing for endoscopic closure of perforation or as a temporizing measure prior to surgical intervention. Endoscopists should be comfortable performing this potentially lifesaving intervention. Watch the video: <https://tinyurl.com/yejy6t84>

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#### Real-Time Visualization and Magnetic Balloon-Assisted Technologies for a Challenging Colonoscopy

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**Introduction:** A 60-year-old man suffering from Lynch syndrome was referred to our unit for a surveillance colonoscopy. However, due to a history of pancreaticoduodenectomy for an ampullary cancer, the colonoscopy could be challenging because of abdominal adhesions

**Case Description/Methods:** To overcome this difficulty, we employed a real-time endoscope visualization system, developed to help endoscopists in performing colonoscopies. This real-time endoscope visualization system allows endoscopist to check the shape of the scope throughout the whole procedure and it is designed to accurately recognize and solve loops during colonoscopies. However, after many attempts, we failed to achieve the cecum due to relevant looping of the scope. So, a magnetic balloon-assisted technology accessory was applied. This system consists of a through-the-scope balloon catheter filled with a ferromagnetic fluid and an external magnet. The single use balloon catheter is inserted through the standard colonoscopy operative channel. Then, a water dispersion of biocompatible iron powder is injected through the catheter to fill the balloon. After, the magnet is placed over the patient's abdomen in order to magnetically anchor the balloon. Then, once the balloon is anchored, the endoscopist pulls and rotates the scope to solve the loop without bouncing back during the process. After, the balloon is deflated and removed, and the colonoscopy can be easily completed.

**Discussion:** Several loops were developed during the colonoscopy. The real-time endoscope visualization system showed us that the loops were not solved with the standard techniques, while the use of the magnetic balloon-assisted system allowed us to easily solve the loops and straightens the scope. The cecum was easily reached without loop formation. This magnetic balloon-assisted device allowed to easily and quickly complete the colonoscopy. This promising system may be a great ally to solve loops and achieve an optimal control of the scope during endoscopic resections.

Watch the video: <https://tinyurl.com/ms9em27h>

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#### A Maddening Migration of an Esophageal Stent

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**Introduction:** Fully covered stents are a tool for the endoscopist in the management of benign and malignant strictures of the esophagus. Nevertheless, they come with potential risks to the patient, such as stent migration and related complications. Retrieval of these stents can be challenging, especially if they reach the small bowel. Here, we present a case of a migrated esophageal stent to the jejunum which was successfully retrieved via double-balloon enteroscopy (DBE) with fluoroscopic guidance.

**Case Description/Methods:** The patient is a 48-year-old woman with a history of ulcerative esophagitis complicated by esophageal stricture. The patient originally underwent an esophagogastroduodenoscopy (EGD) in which a 1.8x10 cm fully covered, self-expandable stent was placed at the site of the esophageal stricture. One month later, before a planned follow up EGD, she reported a week-long history of upper abdominal pain and fullness. EGD demonstrated that the previously deployed stent was absent from the esophagus; further investigation of the patient's stomach, duodenum, and proximal portion of the jejunum did not show the stent, either. A computed tomography abdomen and pelvis with contrast demonstrated the migrated esophageal stent in the mid-jejunum with local inflammation. The patient then underwent a DBE with fluoroscopic guidance for stent retrieval. The esophageal stent was successfully located in the distal jejunum and the retrieval of the stent was accomplished via SpyBite forceps [Please refer to video for procedure]. Following the DBE, a small bowel follow through confirmed no perforation or evidence of gastric leak.

**Discussion:** This case highlights 1 of the most common complications associated with esophageal stent placement. Stent migration rates vary widely, with some estimates as low as 4% but other estimates ranging as high as 30%. A large portion of stent migrations are asymptomatic. In some cases, such as when the stent remains in the stomach, a conservative approach can be taken (leaving the stent in place). However, when the stent migrates further into the gastrointestinal tract (such as into the small bowel), chances for complications increase (mucosal ulceration, obstruction, perforation) and they become more difficult to retrieve. DBE provides a less invasive, non-surgical approach to retrieve these stents. This case highlights a key therapeutic technique by DBE that should strongly be considered before surgical intervention/retrieval of the stent.