GENERAL ENDOSCOPY

S2475 Presidential Poster Award

Outside In: Endometriosis of the Appendix, Cecum, and Ileum Masquerading as Suspected Crohn's Disease

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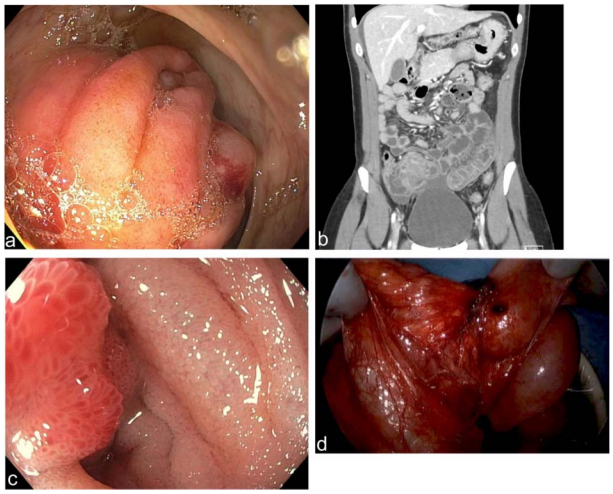
Introduction: Extra-pelvic endometriosis is a rare condition that may present with nonspecific abdominal pain, diarrhea, and/or hematochezia, which can mimic symptoms associated with inflammatory bowel disease. We present a case of suspected Crohn's Disease (CD) in a patient who subsequently was found to have extra-pelvic endometriosis of the appendix, cecum, and terminal ileum (TI).
Case Description/Methods: A 34-year-old female presented with abdominal pain and intermittent hematochezia that was sporadically associated with her menstrual cycles. Her fecal calprotectin (FC) was 510 mcg/g but her other inflammatory markers and labs were normal. Abdominal and pelvic computed tomography (CT) showed ileitis. Index colonoscopy showed inflammation of the appendiceal orifice and focal erythema in the TI. Biopsies of those areas were entirely normal. Magnetic resonance enterography (MRE) revealed an inflammatory conglomeration of the appendix, cecum, and TI without a definitive fistula. Repeat colonoscopy showed similar findings with mild architectural distortion of the appendiceal orifice. She then received an empiric antibiotic course for possible chronic appendicitis without alleviation of symptoms and persistent findings on repeat MRE. Subsequent exploratory laparoscopy revealed chocolate-colored lesions deposited throughout the pelvis and at the confluence of the terminal ileum and cecum consistent with endometriosis. After intraoperative consultation with gynecology, a decision was reached for definitive management with ileocecectomy. She reported improvement of symptoms after surgery (**Figure**).
Discussion: Extra-pelvic endometriosis accounts for 9% of endometriosis. Endometriosis of the appendix as a cause of acute appendicitis is rare and constitutes less than 1% of pathologies mimicking a clinical presentation of acute appendicitis. MRE can be useful in the diagnostic evaluation of endometriosis of the appendix, cecum, and TI but may be limited due to peristaltic artifacts and bowel contents. Laparoscopic intervention of endometriosis has been shown to improve symptoms. Our patient's presentation of abdominal pain with hematochezia, elevated FC, and ileitis on CT, was concerning for CD. Although endoscopic findings were suspicious for Crohn's disease, histological assessment was not, which contributed to the diagnostic dilemma in this case. Endometriosis should be on the differential in female patients presenting with intermittent abdominal pain, especially when the pain is associated with menstrual cycles.



[2475] **Figure 1.** Endometriosis of the appendix, cecum, and terminal ileum. a, Erythema and edema of the appendiceal orifice on first colonoscopy. b, Computed tomography of abdomen and pelvis with contrast showing ileitis. c, Focal area of edematous and erythematous mucosa within the terminal ileum on second colonoscopy. d, Terminal ileum and cecum with endometriotic cysts during laparotomy.

S2476

COWden Syndrome: A Rare Spotting

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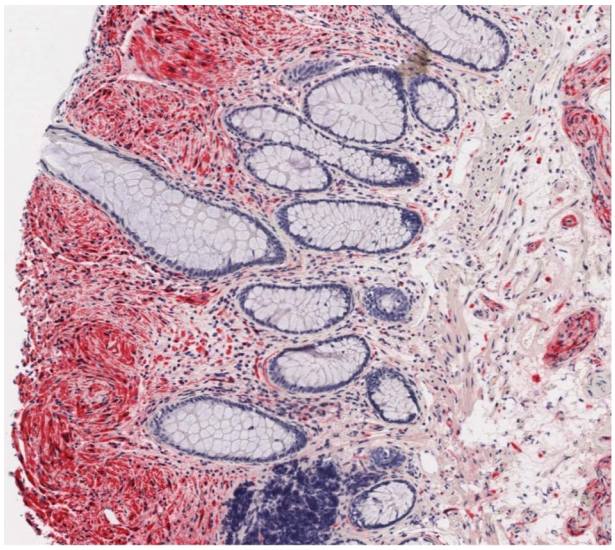
Introduction: Cowden syndrome (CS) is a rare autosomal dominant disorder characterized by multiple hamartomas in any organ throughout the body. Patients with CS are at an increased risk of developing various other cancers. Below, we describe a unique case of diffuse ganglioneuromas found in the duodenum of a patient with a PTEN mutation and established diagnosis of CS.
Case Description/Methods: A 40-year-old man was referred to the gastroenterology clinic for upper endoscopy and colonoscopy after recently being diagnosed with CS based on the PTEN gene mutation. Physical exam findings were significant for frontal macrocephaly and hyper-extendable joints. Laboratory markers were unremarkable. Colonoscopy revealed multiple small and large polyps; upper endoscopy showed numerous gastroduodenal polyps, which were removed.Polypoid-appearing duodenal mucosa was biopsied and pathology findings confirmed ganglioneuroma via positive S-100 stain (**Figure**).
Discussion: The mutated PTEN gene is responsible for the multiple hamartomas and possible neoplasm formation seen in CS. Classic manifestations of CS include variable expression of dermatologic manifestations. These include: oral papillomas, trichilemmomas on the face, sclerotic fibromas of the skin (found in 90% of patients). GI involvement of CS may include asymptomatic hamartomas, lipomas, and adenoma polyps (found in 80% of patients). GI ganglioneuromas are rare, well-differentiated benign tumors of the enteric nervous system that are predominantly found in the colon. Not commonly found, GI ganglioneuromas have been associated with CS and can remain asymptomatic until growing large enough to produce a mass effect. This cancause GI bleeding secondary to ulceration of the mucosa. Thus, when found, it is crucial these tumors are resected for excellent prognosis. Duodenal ganglioneuromas are very uncommon and there has been no previously reported association of them with CS. Limited case reports are available on duodenal ganglioneuromas, however, one case described treating the tumor similarly to other GI ganglioneuromas.This proved surgical resection is successful in eliminating recurrence of the tumor based on surveillance with monthly stool occult blood tests in the first year after diagnosis?, followed by annual endoscopies. In conclusion, the discovery of intestinal ganglioneuromas should make clinicians consider PTEN genetic testing. Endoscopists should consider performing random duodenal biopsies for patients with established Cowden's syndrome.



[2476] **Figure 1.** Histological Slide: S-100 immunohistochemistry of the duodenal polyp showing expansion of the lamina propria with the presence of diffusely positively stained ganglioneuronal cells.

S2477

Gastric Xanthelasma: A Rare Endoscopic Finding

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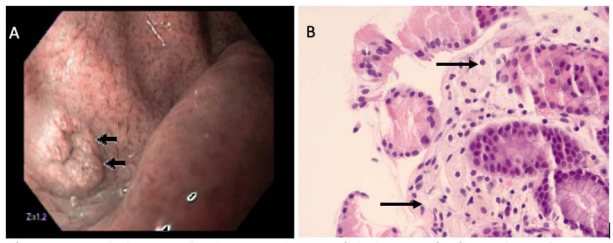
Introduction: Xanthelasmas are benign lesions which are most commonly found on the skin but can also be found in the gastrointestinal (GI) tract. The stomach is the most common site within the GI tract for xanthelasmas with a prevalence of approximately 0.2-0.8%. Endoscopically, they appear as plaque like yellowish-white lesions, and on histology are characterized by foamy lipid laden histiocytes. Xanthelasmas are generally asymptomatic, and thus are usually incidental findings on esophagoduodenoscopies (EGDs) performed for variety of other indications. While they are themselves benign, gastric xanthelasmas are associated with H. pylori associated gastritis, chronic gastritis, as well as gastric dysplasia, emphasizing the need to identify and diagnose this otherwise rare condition.
Case Description/Methods: We describe the case of a 43-year old male with medical history of hypertension and psoriatic arthritis who was referred for evaluation of dyspepsia and chronic heartburn. He was taking ibuprofen, celecoxib, hydrocodone-acetaminophen, losartan and was started on omeprazole prior to GI referral. Family history was notable for father with stomach cancer at age 48 and death at age 50. His vitals were within normal limits and his abdomen was soft, non-tender, non-distended. He underwent an upper endoscopy which showed a polypoid lesion in the fundus, but was otherwise unremarkable (**Figure** 1A). The polyp was biopsied and was suggestive of a xanthelasma, without evidence of metaplasia or dysplasia (**Figure** 1B). Given improvements in his symptoms, he was told to decrease the omeprazole dose and avoid NSAIDs. Follow up EGD at 6 months and 7 years showed no evidence of recurrence and screening colonoscopy at age 50 also showed no signs in the lower GI tract.
Discussion: Gastrointestinal xanthelasmas are rare, and tend to be more commonly found in women. They are usually incidental endoscopic findings and are generally benign. However, they can be associated with pre-cancerous states including gastritis and gastric dysplasia. A prior study has shown that the presence of a gastric xanthelasma was independently associated with gastric cancer with an odds ratio of 6.19. The location of a xanthelasma in the upper region of the stomach was also significantly associated with gastric cancer. This highlights the importance of identification of these lesions on endoscopy with subsequent biopsy for identification and closer monitoring.



[2477] **Figure 1.** A) Gastric xanthelasma in fundus on endoscopy (black arrows). B) Histology of gastric xanthelasma showing foamy lipid laden macrophages (black arrow).

S2478

Blanching Gastric Mucosa: An Endoscopic Finding in a Patient With Celiac Artery Occlusion Leading to Vascular Insufficiency

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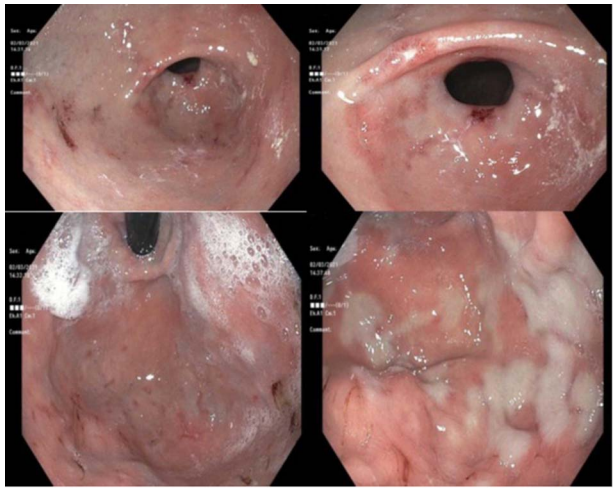
Introduction: Celiac artery occlusion is a significant and debilitating disorder usually characterized by abdominal pain and diagnosed via radiological imaging modalities. Endoscopic findings in this disease have not been clearly depicted. We present a case with significant endoscopic findings of patchy blanching gastric mucosa induced by insufflation during esophagogastroduodenoscopy (EGD).
Case Description/Methods: A 40-year-old woman with past medical history significant for hypertension, intracranial aneurysm with open clipping, coronary artery disease, polyarteritis nodosa presented to the emergency department (ED) complaining of intractable epigastric abdominal pain which had become progressively worse over the past month. Initially, the pain was described as intermittent and crampy which then became constant, 10/10 in intensity, associated with poor oral tolerance, nausea and non-bloody, non-bilious vomiting. Upon presentation vital signs were T 97.9 F, HR 96 bpm, BP 162/117 mmHg, SpO2 99% on room air. On physical exam, patient was ill appearing with diffuse abdominal tenderness with guarding and rebound tenderness, soft, non-distended, with bowel sounds appreciated. Computed tomography angiography (CTA) of the abdomen/pelvis revealed complete occlusion of the celiac artery at the origin and stenosis at the SMA origin with retrograde filling of the celiac territory via an enlarged IPDA collateral. The Gastroenterology service was consulted and an EGD was performed. Upon insufflation of air into the stomach, patchy blanching of the gastric mucosa was noted which continued to worsen, this immediately improved upon deflation. Superficial erosions were also seen in the entire stomach, otherwise the remainder of the exam was normal. Based on the patient's recent findings on CTA and gastric blanching observed during the EGD, she was assumed to have vascular insufficiency likely secondary to vasculitis in light of positive ANCA and lupus anticoagulant. After appropriate treatment the patient was discharged with rheumatologic follow up (**Figure**).

Discussion: This case is presented to educate physicians on a possible manifestation of vascular insufficiency on endoscopy and to always keep it in mind when evaluating a patient presenting with severe abdominal pain. Vascular insufficiency can manifest itself in many ways, but in our case, different clues led us to the diagnosis from her physical exam, to the findings seen on CTA and to the results appreciated on EGD.



[2478] **Figure 1.** Patchy blanching of the gastric mucosa with superficial erosions as demonstrated on EGD.

S2479

Breast Cancer With Synchronous Endoluminal Upper and Lower GI Metastases

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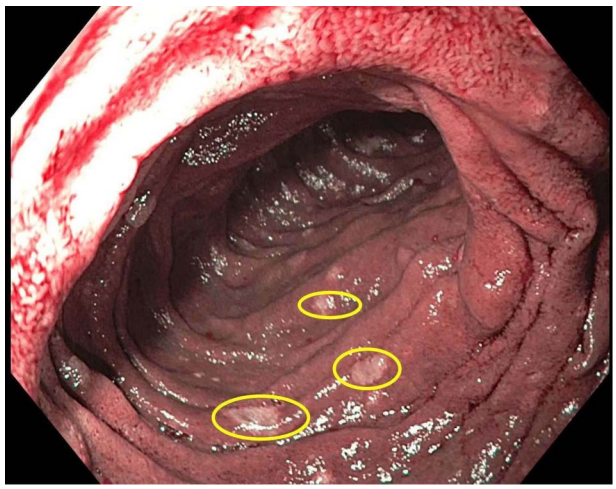
Introduction: Breast cancer is the most common cancer of women and spreads commonly to organs such as the lungs, bones, brain and liver. We present a case of a 61 year-old woman who had isolated upper and lower GI endoluminal metastases from a primary breast lobular carcinoma in situ (LCIS) lesion.
Case Description/Methods: A 61-year-old woman underwent screening mammogram that demonstrated focal asymmetry in the right upper outer quadrant. Breast US showed a BIRADS-4 lesion. Nodal biopsy was positive for Pleiomorphic LCIS Nuclear Grade 2 without invasive component. She then had lumpectomy. The LCIS was 0.1cm from the margin without invasive carcinoma present. She started raloxifene and underwent surveillance MRI and mammogram at regular intervals. Two years after diagnosis, she had a screening colonoscopy that showed a single hepatic flexure polyp. Pathology showed poorly-differentiated metastatic adenocarcinoma (GATA3+, CK+, ER weakly positive 2-5%, CK20-, TTF1-, PAX8- and CD56-), suggesting breast cancer origin. CT chest/abdomen/pelvis, bone scan, CT brain, breast MRI and PET scan were all negative for apparent metastatic disease. She then started letrozole and pabloclib. Repeat colonoscopy after 6 months did not show any change in the lesion. EGD was performed 3 years after first diagnosis and discovered white patches in the duodenum. Biopsies showed metastatic adenocarcinoma of breast origin. She continued letrozole and pabloclib. Serial CT scans and bone scans remained negative for metastatic disease. Surveillance EGD was repeated every 6 months and showed gastric and duodenal lesions that were biopsy-proven metastatic breast cancer. The lesions remained stable on treatment over a follow-up period of more than 3 years (**Figure**).
Discussion: Breast cancer is the most common cancer affecting women and is also the second most common cause of cancer death in women. Metastases to the gastrointestinal tract are rarely seen in clinical practice and when these are present, the stomach is the most common site of metastasis. Most patients (81%) with endoluminal GI metastases usually have other apparent metastatic disease. Isolated synchronous endoluminal GI metastases of both the small and large bowel are very rare with only one other case identified in the literature. Breast cancer with gastric metastases has a median survival of 24-36 months. Our patient survived and had stable disease for more than 3 years.



[2479] **Figure 1.** Duodenum examined using Narrow-Band Imaging (NBI) showing metastatic deposits (circled in yellow).

S2480

Black Speckled Villi

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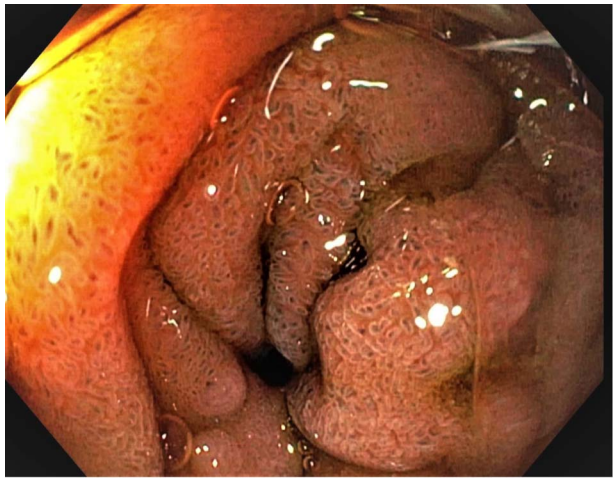
Introduction: Pseudomelanosis duodeni (PD) is a rare incidental finding characterized by brownish black pigmentation seen primarily in the first and second portions of the duodenum. The exact cause is unknown but it is associated with certain medications and chronic medical conditions. Here we present a case to help gastroenterologists recognize this rare endoscopic finding.
Case Description/Methods: A 49-year-old man with a past medical history of GERD, obesity, obstructive sleep apnea, type 2 diabetes and atrial fibrillation was referred for evaluation of rectal bleeding and iron deficiency anemia. His medications included iron supplementation, amlodipine, aspirin, atorvastatin, carvedilol, furosemide, and hydralazine. The cause of the patients rectal bleeding was determined to be from hemorrhoids found during colonoscopy. Esophagogastroduodenoscopy demonstrated diffuse mucosal changes characterized by speckled black pigmentation extending along the villi (**Figure**). Biopsies were taken and showed benign black pigmented macrophages in the lamina propria.
Discussion: Pseudomelanosis duodeni is a rare finding of unknown etiology. It is associated with chronic medical conditions including iron deficiency anemia, hypertension, diabetes, chronic kidney disease and common medications such as ferrous sulfate, hydralazine, propranolol, hydrochlorothiazide and furosemide. Despite the association with these common conditions and medications, PD remains a rare endoscopic finding. Why certain patients develop this finding is unknown. Interestingly, there is no association with anthraquinones as seen in pseudomelanosis coli. Histology typically shows black granular pigment inside macrophages within the tips of the villi. Although the endoscopic findings are striking, the condition has no clinical consequence and requires no treatment.



[2480] **Figure 1.** Pseudomelanosis duodeni.

S2481

Closure of Refractory Gastrocutaneous Fistula With Endoscopically Guided Percutaneous Suturing With the Use of SpyBite Biopsy Forceps

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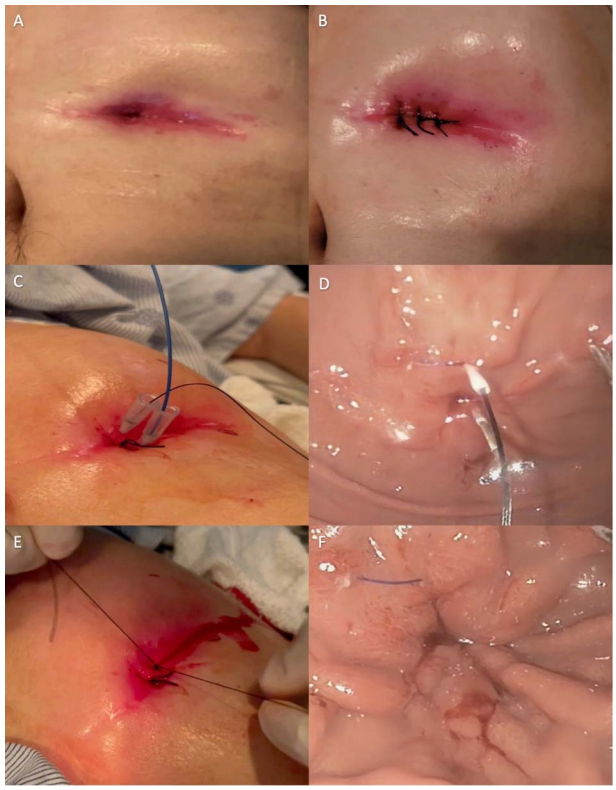
Introduction: Persistent gastrocutaneous fistula (GCF) is a rare but well-known complication of long-term Percutaneous Endoscopic Gastrostomy (PEG) tube use. To avoid invasive surgery, endoscopic closure has been used as an initial step for treatment but is not always successful. We report a case of successful GCF closure with a novel endoscopically guided percutaneous suturing technique using the SpyBite biopsy forceps.
Case Description/Methods: Our case is a 28-year-old male with a history of cystic fibrosis (CF) complicated by malnutrition, requiring PEG tube placement since childhood. After starting CF therapy with elexacaftor/tezacaftor/ivacaftor and achieving optimal nutritional status, his PEG tube was removed. Unfortunately, he developed a persistent GCF. Initial attempts at closure with over-the-scope-clip and endoscopic suturing failed. The decision was made to proceed with GCF closure by endoscopically guided percutaneous suturing using the SpyBite forceps. Under endoscopic guidance, 2 16G long angiocaths were advanced into the gastric lumen, one caudal and one cranial to the fistula tract in a sterile fashion. A 2-0 silk suture was advanced through one angiocath and externalized using SpyBite biopsy forceps through the other angiocath. The angiocaths were then removed over the suture and the loop was tied down using a surgical knot. This process was repeated 2 more times along the fistula tract, 5mm from each other. Internal closure of the GCF was then performed using endoscopic suturing. One interrupted and 2 running sutures were placed along the border and cinched to reinforce the site. There were no immediate adverse events or delayed skin inflammation. The patient had no further leakage from the GCF site at follow-up 2 weeks later (**Figure**).
Discussion: With the emergence of novel CF therapies, the dependence on feeding tubes has decreased. Unfortunately, these patients are at high risk of GCF formation after PEG tube removal. Given the difficulty in closing GCF, we advocate a multimodality approach, as described here, using transcutaneous and endoscopic suturing. In previously described endoscopically guided percutaneous suturing, the suture loop is externalized through the GCF tract or the mouth. Our technique differs in using SpyBite forceps to externalize the suture through a second catheter. This method is simple and provides a safe and effective alternative for the closure of refractory GCFs.



[2481] **Figure 1.** A-B: Gastrocutaneous fistula before (A) and after closure (B). C-D: 2-0 silk suture inserted through the angiocath and SpyBite forceps inserted through the second angiocath. The suture was grasped with SpyBite forceps and pulled through the second angiocath to form a loop (C: external view, D: endoscopic view) E-F: The suture was pulled externally, and a surgical knot was performed (E: external view, F: endoscopic view).

S2482

Closure of Bilo-Entetric Fistula Using Combination of Endoscopic Suturing and Over-the-Scope Clip Placement

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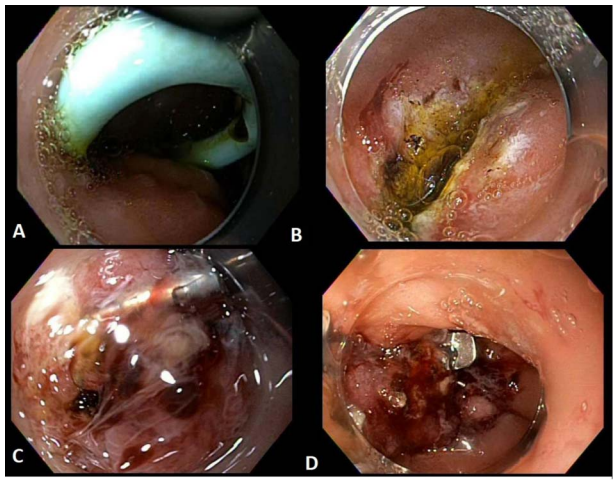
Introduction: Bilo-enteric fistulas are an uncommon complication after placement of biliary drains. Most reports describe surgical management for bilo-enteric fistulas and reports of these fistulas managed endoscopically are rare. Here, we report a case of a bilo-enteric fistula which was managed by combination therapy with endoscopic suturing and over-the-scope-clip.
Case Description/Methods: A 75-year-old man underwent laparoscopic cholecystectomy for acute cholecystitis, which was complicated by injury to the common bile duct and required conversion to an open cholecystectomy and Roux-en-Y hepaticojejunostomy. After discharge, he returned with an ongoing bile leak and interventional radiology (IR) placed an internal-external biliary drain across the hepaticojejunostomy anastomosis. Following IR drainage, he had persistent fever and leukocytosis. Imaging revealed a perihepatic abscess and biloma. He underwent an additional IR-guided percutaneous drain placement into the biloma. Subsequently, cholangiogram revealed bile leak at the hepaticojejunostomy site with extension of contrast into the proximal duodenum concerning for a fistulous communication between the duodenum and biloma. After multidisciplinary discussion, the decision was made to evaluate the fistulous communication with esophagogastroduodenoscopy (EGD). An EGD was performed and the previously placed external drain was seen fistulized into the duodenal bulb [**Figure** 1A]. The external drain was pulled back outside the duodenal lumen. The fistulous opening was 15 mm in size. Argon plasma coagulation of the tract edges was performed to promote tissue healing and closure followed by endoscopic suturing to close the tract [**Figure** 1B]. Endoscopic suturing was performed using the OverSitch device and one suture was placed in a figure of 8 fashion. However, a 3-mm opening was seen immediately distal to the pylorus even after cinch placement [**Figure** 1C]. To close the remaining defect, a 12-mm in diameter over-the-scope clip was placed [**Figure** 1D]. Following closure, there was no residual contrast leakage confirming successful closure of the fistula. The external drain was subsequently removed without evidence of biloma re-accumulation on follow-up imaging.
Discussion: Our report highlights that a combination of endoscopic suturing and over-the-scope clip closure approach can be a potential endoscopic option for managing bilo-enteric fistulas.



[2482] **Figure 1.** A- External drain seen fistulized into the duodenal bulb. B- Endoscopic suturing to close the fistula tract. C- Pylorus opening seen after endoscopic suturing. D- 12-mm over-the-scope clip was placed to close the defect.

S2483

Combined Endoscopic Ultrasound and Endobronchial Ultrasound to Stage and Diagnose Non-Small Cell Lung Cancer in the Setting of CLL/SLL

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Introduction: Chronic lymphocytic leukemia and small lymphocytic lymphoma is an indolent leukemia with a variable course affecting 4-5 per 100,000 population in the US/year. Patients with CLL are at an increased risk of other cancers, including lung cancer. Endosonography can be used to diagnose and stage suspected lung cancer. EUS-FNA can be used not only for cancers of the gastrointestinal tract, but can also be utilized as an alternative to surgical staging for lung cancer, such as mediastinoscopy. We present a case of lung cancer that was staged and diagnosed via combined endoscopic and endobronchial ultrasound with biopsies.
Case Description/Methods: A 78-year-old man with a history of CAD, prostate cancer in remission and chronic lymphocytic leukemia (CLL) presented to the ED from his scheduled bronchoscopy for a right hilar mass with pleural effusion and 2 weeks of progressive dyspnea. During hospitalization, gastroenterology was consulted for a EUS-FNA for the patient's subcarinal node seen on imaging and pulmonology consulted for an EBUS due to this left hilar mass with mediastinal lymph nodes. EBUS revealed an extrinsic compression of the RLL and RUL and EBNA performed on 3 mediastinal lymph nodes. EUS-FNA showed 3-4 cm conglomeration of well-defined, round and hypoechoic lymph nodes in the subcarinal space with fine needle biopsy. Final pathology of these specimens diagnosed stage III non-small cell lung cancer.
Discussion: EUS can be utilized to reach the left and lower paraesophageal structures as well as structures below the diaphragm. EUS-FNA added tissue samples from his subcarinal lymph nodes that supported the correct diagnosis of non-small cell lung cancer. Due to the diagnosis of non-small cell lung cancer from his combined EBUS/EUS-FNA, the patient did not require surgical staging. Our case demonstrates the need use of a combined EUS/EBUS approach to diagnose a patient with CLL with non-small cell lung cancer. Second malignancies in CLL cases are rare and approximately 2% of patients with CLL develop lung carcinoma. Recent studies showed that patients with CLL less than 55 years old have a greater risk of developing secondary solid tumors, not like our patient who was 78 years old. Tissue samples from the EUS-FNA/EBUS are very important to help guide therapy due to the high resistance to conventional chemotherapy in patients with CLL and a second malignancy. A multidisciplinary approach can be used to diagnose and stage lung cancers with EBUS/EUS-FNA in the setting of CLL.

S2484

ColoWrap Device Facilitates Successful Colonoscopy in Patient With Prior Incomplete Colonoscopy Due to Looping and Adhesions

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Introduction: Two primary causes of incomplete colonoscopy related to patient anatomy include redundancy and post-surgical adhesions. This case report details on the successful completion of a previously failed colonoscopy in a 70-year-old obese male patient with a redundant colon and prior abdominal trauma (gunshot wound) using a colonoscopy compression device (ColoWrap).
Case Description/Methods: A 70-year-old obese male patient with a history of abdominal trauma (gunshot wound) underwent surveillance colonoscopy in November 2021. During the procedure, significant looping occurred once the scope was advanced past the distal colon, inhibiting progress beyond the hepatic flexure. All standard measures including torquing, manual abdominal pressure, and patient repositioning were employed yet were unsuccessful and after one hour the procedure was aborted. The patient thereafter underwent virtual colonoscopy which indicated a lesion in the ascending colon. The patient was scheduled for a repeat colonoscopy in January of 2022 with the same experienced endoscopist. Due to prior difficulties, the physician decided to perform the patient's repeat attempt at colonoscopy using a ColoWrap. ColoWrap is a single-use lower abdominal compression device designed to help mitigate looping during colonoscopy. The device applies broad, sustained compression across the lower abdomen and features 2 secondary straps that can be used to direct additional, location-specific pressure. The ColoWrap was applied just prior to the exam per manufacturer instructions. Looping was once again encountered past the distal colon. In response, the ColoWrap secondary straps were adjusted to apply directed compression to the areas of presumed looping in the left and the transverse colon. This enabled successful advancement past the hepatic flexure and to the cecum. The lesion that had been indicated on virtual colonoscopy was identified and biopsied. The biopsies revealed a large, high-risk adenoma not amenable to endoscopic removal and surgery was performed (**Figure**).
Discussion: In this case, use of ColoWrap enabled successful cecal intubation in a patient with a previous incomplete colonoscopy who had a known proximal colonic lesion identified by virtual colonoscopy. ColoWrap's intra-procedural adjustability and features delivering targeted compression to specific regions of the abdomen were instrumental in overcoming the anatomical difficulties that had resulted in the failure of the prior colonoscopy performed by the same, experienced endoscopist.

[2484] **Figure 1.** A. ColoWrap Anti-Looping Colonoscopy Compression Device B. ColoWrap in-situ (previous, single-strap version).

S2485

Clinically Significant Upper Gastrointestinal Bleeding Post Esophagogastroduodenoscopy Cold Biopsy: A Rare Case Report

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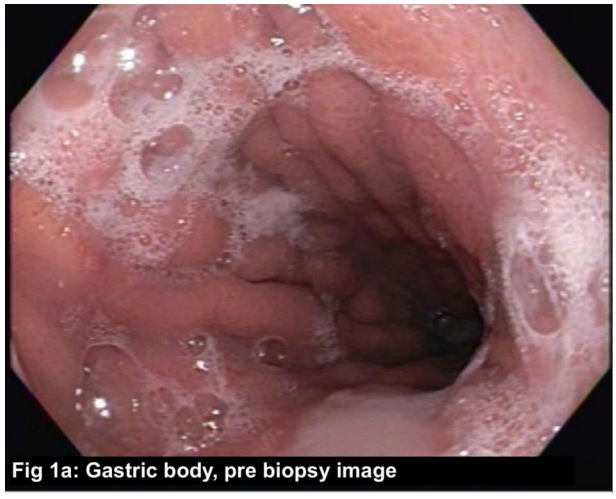
Introduction: Bleeding after cold forceps biopsy of the gastrointestinal tract is an extremely rare phenomenon, estimated incidence < 0.1%. Clinically significant bleeding is even rarer. However, in patients who have evidence of gastrointestinal bleeding (GIB) after endoscopic biopsy, it is an important cause to consider.
Case Description/Methods: A 42-year-old female with a past medical history of kidney transplant for end stage renal disease of unknown etiology (with allograft rejection 3 months prior to admission), on intermittent hemodialysis and chronic normocytic anemia presented with acute on chronic abdominal pain, diarrhea, nausea, and emesis. Infectious evaluation was unrevealing. CT abdomen and pelvis showed moderate colitis and moderate to severe enteritis of the mid small bowel. Esophagogastroduodenoscopy (EGD) showed scalloping of the mucosa with a few scattered submucosal hemorrhages in the mid-esophagus and pseudomelanosis duodeni. Colonoscopy showed erythema and submucosal hemorrhages throughout the colon (sigmoid and rectum spared). Cold forceps biopsies were taken from the esophagus, stomach, duodenum, and colon. Several hours after endoscopy, she had hematochezia, hematemesis, and new severe epigastric abdominal pain along with tachycardia and relative hypotension. Labwork revealed a hemoglobin/hematocrit of 4.3g/dL/14% (down from 8g/dL/24%), INR 1.4, and platelets 177thou/uL. There was no evidence of disseminated intravascular coagulation or hemolysis. CT angiogram did not show active bleeding. After resuscitation, repeat EGD revealed oozing from gastric and duodenal biopsy sites. Eight hemoclips were placed for hemostasis at the sites of bleeding. Biopsies from initial EGD revealed esophagitis, lymphocytic gastritis (LG), negative helicobacter pylori stain, and normal duodenal and colonic mucosa (**Figure**).
Discussion: The risk of bleeding after endoscopic cold biopsy is rare, ranging from 0.004% to 0.07 %; hemodynamically significant luminal bleeding is even rarer. The association of LG with this phenomenon, in the absence of other histologic features, remains understudied. There are no reports that suggest LG increases the risk of bleeding, however this might be a novel presentation. LG has many causes, including medications like angiotensin receptor blockers (ARBs). There are some reports that ARBs can lead to platelet disregulation, but this has not be linked to any cases of GIB. Endoscopic evaluation is warranted in this setting for diagnostic and therapeutic purposes.



[2485] **Figure 1.** Pre and Post Biopsy Endoscopic Images.

S2486

Chilaiditi's Sign: Should You Give Up or Persist?

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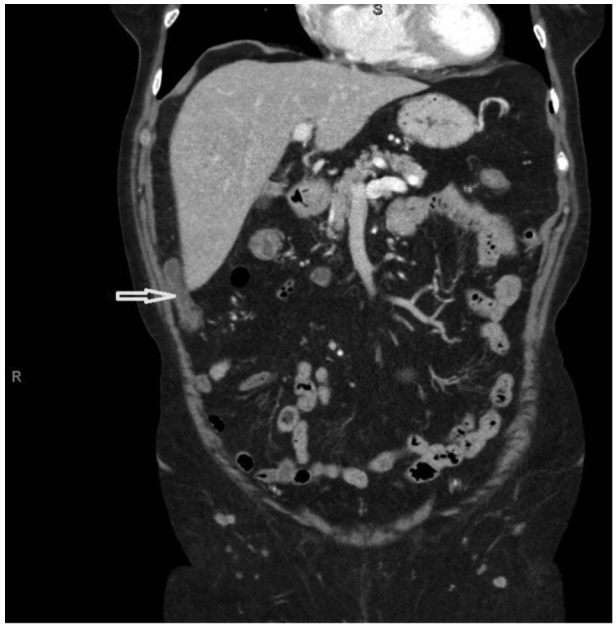
Introduction: Chilaiditi's sign is an incidental radiographic finding of the interposition of the bowel loop between the liver and the diaphragm. With an estimated worldwide prevalence of 0.028 - 0.25 %, this is commonly associated with older age and men. Below, we describe an unusual case of Chilaiditi's sign incidentally found during a routine colonoscopy in a female patient
Case Description/Methods: A 73-year-old asymptomatic woman was referred to the Endoscopy Unit for a surveillance colonoscopy. On physical examination, the patient had no abdominal pain or distension. CBC and CMP were unremarkable. Pediatric colonoscope was inserted via the rectum and reached the hepatic flexure. However, due to an acute angulation, the scope was not able to be advanced further and the procedure was therefore aborted prematurely. A CT scan of the abdomen and pelvis performed the same day identified interposition of the distal transverse colon and proximal ascending colon between the liver and the anterior abdominal wall, which explained the difficulty encountered in advancing the colonoscope beyond the hepatic flexure (**Figure**). She is being rescheduled for repeat colonoscopy.
Discussion: Acute angulation of the bowel and technical difficulty in completing a colonoscopy may be indicative of Chilaiditi's sign. Predisposing factors include: cirrhosis, COPD, or presence of ascites. When this anatomical distortion becomes symptomatic, it is referred to as Chilaiditi's syndrome. These symptoms are secondary to elevation of the diaphragm and/or bowel obstruction, perforation, or ischemia. It can be confirmed with CT imaging, which typically demonstrates an interposition of the transverse colon between the liver and the abdominal wall. While no intervention is usually required for asymptomatic patients with Chilaiditi's sign, awareness of the condition is important for physicians. Forceful pressure against the interposed bowel can trap air in the colon segment and increase intra-luminal pressure,

potentially causing perforation. To decrease the risk of perforation, carbon dioxide can be administered in patients with known Chilaiditi' sign during colonoscopy as an insufflating agent. Limited case reports are available on the management protocol for patients with Chilaiditi's sign; however, according to a previous case report, carbon dioxide is safe and effective in the GI tract. It is imperative that endoscopists are aware of this condition and exercise extreme caution while performing a difficult colonoscopy.



[2486] **Figure 1.** CT scan of abdomen showing the interposition of the distal transverse colon and proximal ascending colon between the liver and the anterior abdominal wall.

S2487

CMV-Induced Gastritis, Duodenitis and Colitis in an Immunosuppressed Patient

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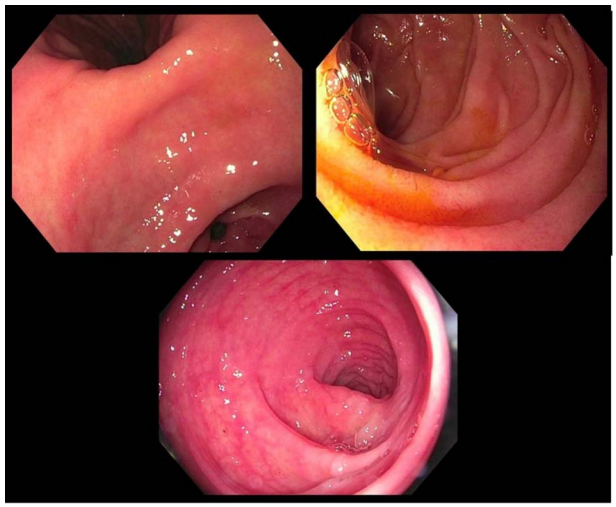
Introduction: Cytomegalovirus (CMV) is a common cause of morbidity and mortality in immunocompromised patients. CMV can infect any part of the Gastrointestinal tract, with the colon being the most affected. There are isolated reports of gastric, small intestine, and esophagus involvement, however, we report a case of CMV-induced gastritis, duodenitis, and colitis which occurred concurrently in an immunosuppressed patient.
Case Description/Methods: A 65-year-old woman with a history of deceased donor kidney transplant presented with fatigue, generalized weakness, and a 2-week history of black-colored bowel movements. Her social history was negative for smoking, alcohol ingestion, and illicit drug use. Surgical history and review of systems were otherwise insignificant. On admission, vitals and physical exam were not significant. On laboratory analysis, serum creatinine of 2 mg/dL (baseline of 1.4-1.6 mg/dL) and a hemoglobin level of 7 g/dL was present; complete blood count and chemistry panel were otherwise normal. The patient was CMV positive with a viral load of PCR 309000 IU/mL. Due to her history of transplant and anemia an esophagogastroduodenoscopy (EGD) and colonoscopy were performed and revealed erythematous mucosa in the antrum, duodenum, ascending colon, transverse colon, descending colon, and ileocecal valve. Biopsies of these sites revealed cytopathic changes and positive immunostaining for CMV. The patient received IV ganciclovir followed by oral valganciclovir until 2 weekly CMV viral load had been negative. Subsequent outpatient Follow-up visit showed resolution of symptoms and CMV viral load (**Figure**).
Discussion: CMV gastroenteritis in acute settings can present with a wide variety of symptoms including nausea, vomiting, abdominal pain, and bloody diarrhea. CMV gastroenteritis is often an isolated finding in one site and therefore can be easily missed if there is not a significant clinical suspicion. Upon review of the literature, no other case reports were found involving all the above-mentioned sites in a single patient. It is important to note that patients who are immunocompromised may present with vague symptoms, which should be investigated further, as was the case with our patient. Our case emphasizes that physicians should be aware of various clinical presentations and that although rare, CMV can affect multiple areas in the same patient.



[2487] **Figure 1.** Diffuse erythema can be observed on the gastric mucosa (top left), the second portion of the duodenum (top right), and throughout the colon (bottom center).

S2488

Diffuse Mesenteric Lymphadenopathy and Duodenal Polyposis Secondary to Mantle Cell Lymphoma: A Rare Case Report

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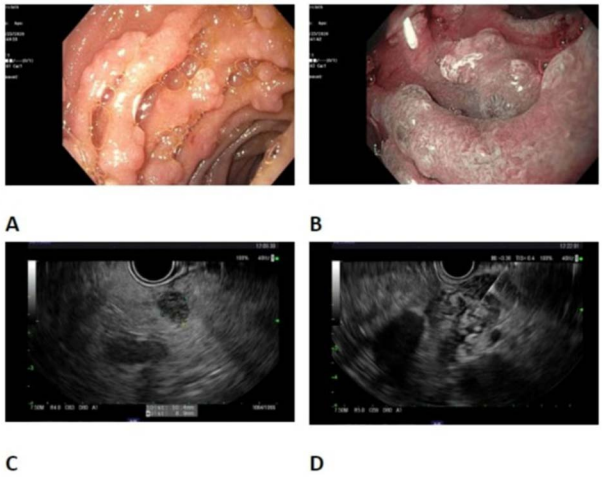
Introduction: Mantle cell lymphoma (MCL) is a rare type of B-cell non-Hodgkin lymphoma characterized by atypical small lymphoid cells within the mantle zone of germinal center follicles. Immunohistochemistry shows cyclin D1 overexpression associated with CD5+ and CD20+ expression and a t(11;34)(q13;q32) translocation. Despite being classified as low-grade, it is an aggressive lymphoma because it is usually discovered at a late stage with splenomegaly, lymphadenopathy, and blood and bone marrow involvement. Gastrointestinal involvement is common as an extranodal site of the MCL; however, primary GI lymphoma is very rare (about 1-4% of all GI malignancies).
Case Description/Methods: A 58-year-old male presented with epigastric abdominal pain, nausea, and vomiting for a few weeks. He denied unintentional weight loss, night sweats, or anorexia. The physical exam and essential laboratory work were unremarkable. Computed tomography (CT) scan showed proximal small bowel wall thickening, with moderate epigastric, retroperitoneal, and mesenteric lymphadenopathy concerning lymphoma. Esophagogastroduodenoscopy (EGD) showed diffuse polyposis in the proximal duodenum (**Figure** A,B). Endoscopic ultrasound (EUS) showed multiple enlarged peri duodenal and peripancreatic lymph nodes and abnormal duodenal wall thickening. A fine needle biopsy of the duodenal wall and lymphadenopathy was obtained using a 22-gauge needle (**Figure** C,D). Histology was consistent with mantle cell lymphoma, and molecular testing was positive for monoclonal IgH gene rearrangement. The patient was referred to oncology and started on chemotherapy per protocol.
Discussion: Mantle cell lymphoma (MCL) is a rare type of B-cell non-Hodgkin lymphoma. Because of poor detection by radiological imaging, multiple organ systems are involved by the time of diagnosis leading to a poor prognosis with very low median survival. Only a few case reports are available in the literature about primary gastrointestinal mantle cell lymphoma; thus, little is known about the outcome, the response to treatment, and the duration of remission in primary GI MCL patients.



[2488] **Figure 1.** (A) EGD image shows diffuse polyposis in the proximal duodenum, (B) EGD image with narrow-band imaging shows diffuse duodenal polyposis, (C) Endoscopic ultrasound shows peripancreatic lymphadenopathy, (D) Endoscopic ultrasound with fine-needle biopsy of the thickened duodenal wall.

S2489

Differentiating CMV Colitis From GVHD in Post-Transplant Patients: A Case Study

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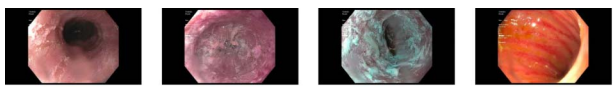
Introduction: Cytomegalovirus (CMV) infection can complicate the clinical course of immunocompromised patients including allogeneic hematopoietic stem cell transplant (allo-HSCT) recipients, where the infection can be serious. CMV can involve different organs including lungs, brain, eyes, and the GI tract. Signs and symptoms of CMV infection may overlap with other conditions including graft-versus-host disease (GVHD), a multisystem disorder commonly seen in allo-HSCT recipients.
Case Description/Methods: A 57-year-old female presented with abdominal pain and diarrhea. Past medical history included relapsed acute myeloid leukemia, treated with azacitidine and venetoclax followed by allo-HSCT. She was recently hospitalized for suspected GVHD with skin, liver, and gastrointestinal involvement. She was also found to have a CMV viral load of 920 IU/mL. Endoscopy showed diffuse inflammation across the GI tract, with biopsies revealing apoptotic bodies consistent with acute GVHD. She was treated with ruxolitinib and prednisone for GVHD, and valganciclovir prophylactically for CMV viremia. At this presentation, labs were notable for lymphocytes of 39 x10^3/uL and platelets of 22 x 10^3/uL, and CMV viral load of 1,822,242 IU/mL. CT imaging revealed thickened distal small bowel loops, cecum, and right colon, and edematous gastric walls with submucosal enhancement. Infectious work-up, including stool culture, ova/parasite, and clostridium, was negative. She underwent endoscopic evaluation; EGD showed white discoloration that washed off in the esophagus and diffuse erythematous mucosa in the stomach (**Figure**). Biopsies from gastric mucosa and right colon mucosa revealed focal nuclear changes. Immunohistochemical stains were positive for CMV. She was diagnosed with refractory CMV colitis and treated with maribavir with improvement of symptoms and reduction of viral load, and prior course of steroids was tapered.
Discussion: Immunosuppression for GVHD has been identified as an important risk factor for CMV reactivation. Differentiating CMV colitis and GI-GVHD poses a diagnostic challenge, and endoscopic evaluation is needed to address this. Endoscopy can identify cecal ulcers, a reliable finding for CMV colitis in patients with GVHD after allo-HSCT.[1] It is important to timely identify CMV colitis to prevent post-transplant morbidity and mortality. This case also demonstrates effectiveness of maribavir, a novel antiviral, for refractory post-transplant CMV colitis.



[2489] **Figure 1.** EGD images showing white discoloration in the entire esophagus and diffuse erythematous mucosa in the entire examined stomach.

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1. Matsuda K, Ono S, Ishikawa M, et al. Cecum ulcer is a reliable endoscopic finding in cytomegalovirus colitis concomitant with graft-versus-host disease after allogeneic hematopoietic stem cell transplantation. Ann Hematol 2018;97(5):877-883.

S2490

Discovery of Gastric Adenocarcinoma During PEG Tube Placement in Patient With Epiglottic Squamous Cell Carcinoma

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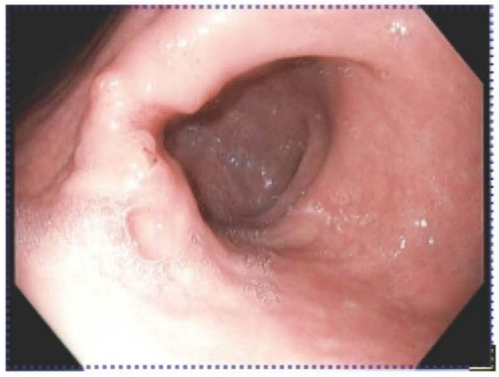
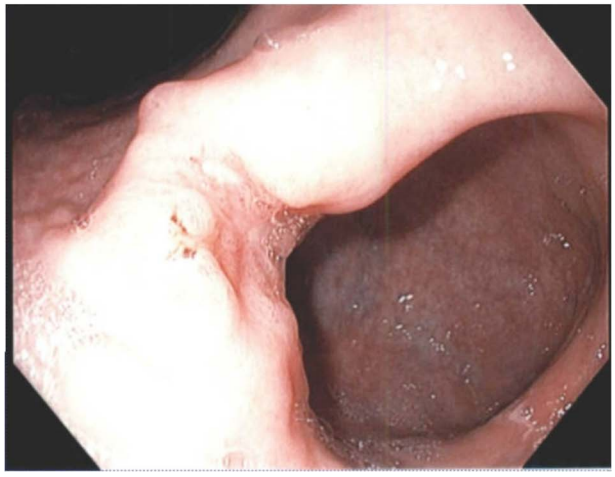
Introduction: Multiple primary neoplasms constitute up to 2-17% of cancer diagnoses. Etiological factors such as genetics, lifestyle choices, and immune status have a significant impact on the likelihood of patients developing synchronous multiple primary tumors. The timing of diagnosis for the different cancers has a major impact on disease management, treatment plans, and patient outcomes. We report a patient who was diagnosed with gastric adenocarcinoma at the time of percutaneous endoscopic gastrostomy (PEG) tube placement for dysphagia secondary to squamous cell carcinoma of the anterior epiglottis.
Case Description/Methods: A 77-year-old male presented to the outpatient surgery center for upper endoscopy with PEG tube placement. Two months prior, the patient was diagnosed with p16 negative invasive squamous cell carcinoma of the anterior epiglottis. He was referred for PEG tube placement for nutrition supplementation due to 5 months of progressive dysphagia and protein calorie malnutrition with an unintentional weight loss of 50 lbs. Past social history was significant for tobacco dependence with 52 pack years and alcohol dependence. At the time of PEG tube placement, endoscopy revealed a 1.5 cm excavated lesion at the gastric incisura. Biopsy was performed to rule out malignancy. PEG tube was successfully placed. The gastric biopsy was consistent with diffuse type signet ring gastric adenocarcinoma. PET scan 1 month prior to PEG tube placement did not show any foci of abnormal FDG uptake outside of the primary lesion in the epiglottis. Patient is currently undergoing treatment for laryngeal carcinoma with chemotherapy and radiation. Assessment and treatment for gastric cancer diagnosis will be deferred until completion of treatment for laryngeal carcinoma (**Figure**).
Discussion: Concurrent laryngeal and gastric cancer is a unique diagnosis that has not been well reported in the literature. However, given the strong association for both malignancies with chronic alcohol and tobacco use, it is not unreasonable for both to occur in the same patient in an independent manner. The literature has shown that signet ring cell carcinomas have significantly lower ^{18}F-FDG uptake than other forms of gastric cancer. These findings highlight the importance of completing a full endoscopic evaluation in all patients undergoing endoscopy even for procedures as straightforward as PEG tube placement.





[2490] **Figure 1.** Esophagogastroduodenoscopy showing gastric adenocarcinoma at the gastric incisura.

S2491

Conservative Management of a Gastrosplenic Fistula Due to Splenic Abscess: A Success Story

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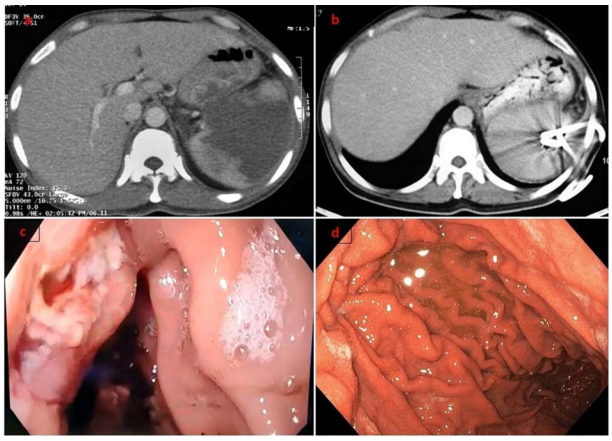
Introduction: Splenic abscess in itself is a rare clinical scenario with data being limited to case reports and case series. Gastrosplenic fistula is a known complication and only few gastrosplenic fistula have been described with benign etiologies. In all these cases, the patient underwent surgical management. Historically, splenectomy was the gold standard of management for splenic abscess but recent case series have established efficacy of conservative approach for splenic abscess.
Case Description/Methods: A 35-year-old male with no known comorbidity presented with fever and recurrent malena to our emergency. He was found to have a large splenic abscess with a gastrosplenic fistula [**Figure** 1a] showing active ooze of pus and blood in gastric cavity on oesophagoduodenoscopy (EGD)[**Figure** 1c]. He was managed with broad spectrum antibiotics and multiple transfusions.A 10 french(fr) percutaneous drain (PCD) was inserted in the splenic abscess as a bridging modality to surgery. A multidisciplinary team comprising of intervention radiologist, surgeon and the treating gastroenterologist decided to try for upgrading the PCD before taking the patient for surgery due to high surgical morbidity in presence of gastrosplenic fistula and poor nutritional status. The drain was later upgraded with 2 14Fr PCD in the abscess [**Figure** 1b]. Pus cultures were sterile and no trophozoites were seen but the amoebic serology(IgG) was positive suggesting an amoebic etiology. On adding metronidazole, there was rapid clinical response with resolution of fever and malena. On regular follow up over 6 weeks, there was complete resolution of gastrosplenic fistula on EGD **Figure** 1d] with resolution of abscess.
Discussion: Our case is the first case to be reported where complete healing of gastrosplenic fistula has been demonstrated without requiring surgery. There are no set guidelines for management of splenic abscess. Historically, surgical management was considered as the gold standard of management but was associated with significant morbidity and mortality of upto 17%. Another recent review on management of

gastrosplenic fistulas showed similar survival of 82% in all cases of gastrosplenic fistulas. However, in recent times safety and efficacy of PCD has been well established. PCD has been attempted in prior reports with gastrosplenic fistula but required surgery for definitive management. The choice of surgery is generally open splenectomy with partial gastric resection but laparoscopic techniques have been described.



[2491] **Figure 1.** (a) Large splenic abscess with loss of fat planes with stomach (b) Resolution of abscess with double pigtail catheters (c) Gastrosplenic fistula opening seen in body of stomach on endoscopy (d) Healed gastric wall after 6 weeks of initial presentation.

S2492

Double Pylorus Secondary to Peptic Ulcer Disease

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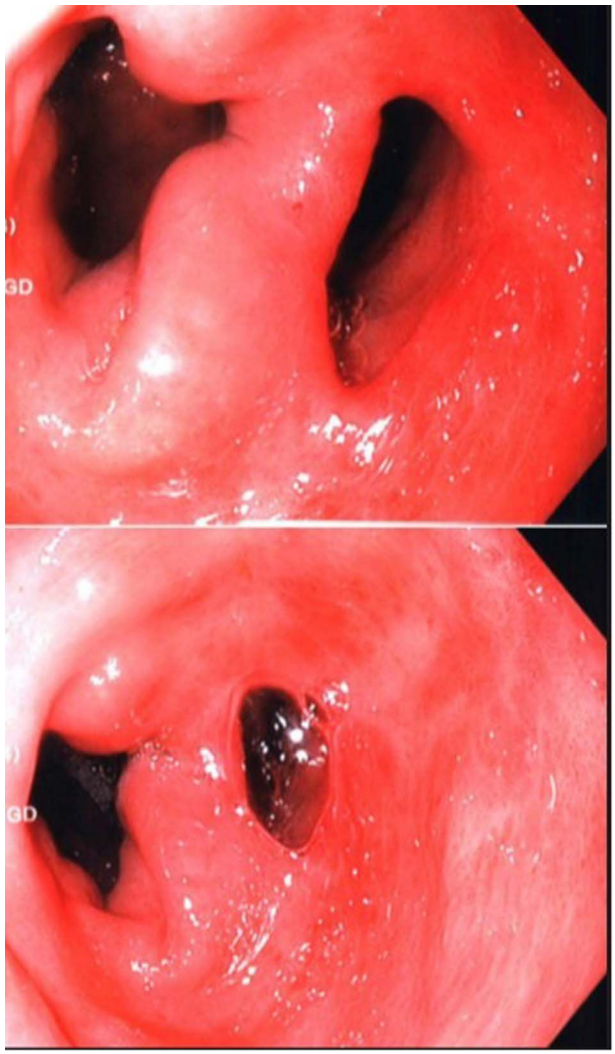
Introduction: Double pylorus is an unusual endoscopic finding viewed as a fistula between the gastric antrum and duodenal bulb. The presence of double pylorus occurs in 0.001 to 0.4% of upper endoscopy procedures and is more frequent in men and those with peptic ulcer disease. We describe a 74-year-old female with prior *H. pylori* infection and gastroduodenal ulcerations resulting in a double pylorus.
Case Description/Methods: A 74-year-old female was referred to our clinic for evaluation of dyspnea and persistent iron deficiency anemia over several months with a history of alcoholic cirrhosis, right hemicolectomy due to diverticulitis, and gastroduodenal ulcer disease in the setting of prior *H. pylori* infection. Her dyspnea was associated with dull pleuritic epigastric pain radiating to her back but she denied nausea, melena, hematochezia, dysphagia, odynophagia, and weight loss. She was compliant with oral iron supplementation and reported 3 years of sobriety. Vital signs and physical examination were unremarkable. CBC displayed macrocytic anemia with iron deficiency on iron panel. Abdominal CT revealed a large paraesophageal hernia and a lobular liver contour compatible with cirrhosis. Given her prior antral and duodenal ulceration, EGD was performed, which revealed antral erythema, an 11 cm hiatal hernia, and a double pylorus (**Figure**). Both ostia at the antrum were intubated separately and appeared endoscopically normal. *H. pylori* biopsies were negative. The patient continued proton pump inhibitor therapy without further procedural intervention.
Discussion: Most cases of double pylorus are acquired in the setting of peripyloric ulceration with resulting mucosal perforation from repetitive damage and impaired healing. After perforation occurs, a fistula can form between the gastric antrum and duodenal bulb. Common symptoms include dyspepsia, emesis, and chronic abdominal pain. Occult bleeding is common and diagnosis requires upper endoscopy to visualize each ostia of the double pylorus along the lesser curvature. Management typically consists of risk factor reduction (NSAID and corticosteroid use, *H. pylori* infection) and pharmacologic promotion of mucosal healing (proton pump inhibitors, H2 receptor antagonists, and antacids). Utilization of these strategies was shown in one study to close the double pylorus false lumen in 9% of cases and cause the 2 pylori to fuse in 27% of cases. However, 64% of patients in the same study had persistent double pylorus despite treatment.



[2492] **Figure 1.** Endoscopic view of the pylorus from the antrum of the stomach.

S2493

Endoluminal Vacuum-Assisted Wound Closure Therapy for Anastomotic Leak Following Robotic-Assisted Colorectal Cancer Surgery

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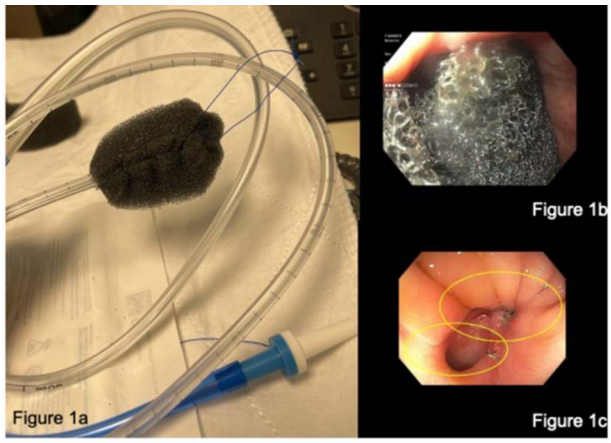
Introduction: Anastomotic leak is one of the most feared and potentially life-threatening complications of colorectal surgery, with leak rates ranging from 3% to 10%. Endoluminal vacuum-assisted wound closure (EVAC) therapy is well known for treating esophageal perforations. However, there are few reports of its use in treating colonic perforations.
Case Description/Methods: A 60-year-old woman presented to the emergency department with a one-week history of severe rectal pain worsening with defecation after undergoing robotic-assisted surgery one month prior for colonic adenocarcinoma. Computed tomography (CT) scan of the abdomen revealed a pre-sacral ill-defined collection measuring up to 3.6 centimeters (cm) of fat-stranding extraluminal gas and fluid posterior to the rectal surgical suture line concerning for anastomotic leak. Endoscopic repair was attempted using X-tack, which was unsuccessful. An endoluminal vacuum suction system was built using a GranuFoam sponge of approximately 5 cm x 3 cm, sutured to an NG tube, and placed partially into the cavity under endoscopic guidance. The system was renewed approximately every 72 hours 3 times, with complete closure of the leak one month later on follow-up endoscopy (**Figure**).
Discussion: Our case illustrates that endoluminal wound VAC therapy may be a good therapeutic option in the appropriate setting. Further studies are needed.



[2493] **Figure 1.** a: Endoluminal vacuum device put together using nasogastric tube and granufoam. b: Endoluminal vacuum set up at the anastomotic leak site via colonoscopy. c: Follow-up colposcopy demonstrating healing of the anastomotic leak site.

S2494

Elusive Intussuscepting Intra-Appendiceal Carcinoid Tumor Diagnosed on Colonoscopy

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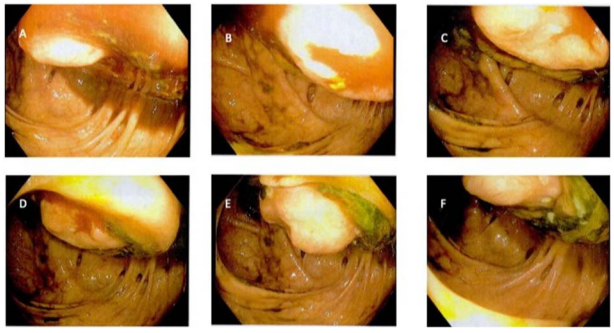
San Ysidro Health/Scripps Mercy Chula Vista Hospital, San Diego, CA

Introduction: Appendiceal neoplasms are asymptomatic and non-obstructive that make up ~1% of appendectomy specimens and ~0.5% of intestinal neoplasms. We present an incidental finding of appendiceal neoplasm in a patient with an acute GI bleed.
Case Description/Methods: A 61-year old male with PUD and diverticulosis on colonoscopy (CLN) 3 years ago presented with painless hematochezia associated with a 3-month 30-lb weight loss. On presentation, vital signs were stable. Physical exam noted for mild abdominal distention. Laboratory values showed WBC of 17.2 K/mcL, hgb of 10.9 g/dL (from 15.1), MCV of 75 fL and platelet count of 1,126 K/mcL (normal one year ago). Computed tomography (CT) of the abdomen and pelvis with contrast revealed a 3.3 x 2.5 cm hyperenhancing mass near the ileocecal valve. GI was consulted for a CLN which showed diverticular bleeding, but no mass. He remained asymptomatic. A bone marrow biopsy showed hypercellularity with atypia and fibrosis most consistent with myeloproliferative neoplasm (MPN). Cytology for JAK-2 V617 mutation was positive and initiated on hydroxyurea for essential thrombocythemia (ET). Meanwhile his hgb continued to downtrend presumed from an acquired von Willebrand syndrome (VWD) and repeat CT scan on hospital day (HD) 5 showed no evidence of acute GI bleed but again showed the mass. On HD7 the patient had BRBPR and a hgb drop to 7.8. On repeat CLN, a mass was discovered intussuscepting in and out of the appendix. A I-123 MIBG Scan was positive in the RLQ with elevated chromogranin A level. Biopsies revealed a low-grade carcinoid tumor. He was discharged with a plan for future right hemicolectomy once platelets stabilized (**Figure, Table**).
Discussion: Neuroendocrine tumors (NET), aka carcinoid tumors, are typically detected in the 5th decade of life. Around one-fifth of NETs are found to have an associated non-carcinoid tumor for which colorectal cancer is 25% to 50% of the cases. In our patient, it was discovered during CLN and imaging prompted by rectal bleeding. It is likely that his carcinoid tumor could have gone undiagnosed if not for his rectal bleeding. We hypothesized this was due in part to his bleeding disorder (acquired VWD) which is very prevalent in those with ET. The patient's coexisting carcinoid tumor and MPN was also of interest as myelodysplastic syndrome can develop in 2% of patients with metastatic NET who were treated with peptide receptor radionuclide therapy thought to be due to myelotoxicity. Treatment of localized >2 cm appendiceal NET is right hemicolectomy.



[2494] **Figure 1.** After careful observation of the cecum, a mass inside the appendiceal orifice was seen intussuscepting in and out. A to F shows time lapse of events.

Table 1. Differential Diagnosis for Terminal Ileitis

Infectious	Drug-related	Vasculitides	Small Bowel neoplasms	Infiltrative	Other
Yersinia	NSAID	Systemic lupus erythematosus	Adenocarcinoma	Eosinophilic enteritis	Crohn's disease
Nontyphoidal Salmonella	Mycophenolate mofetil	Polyarteritis Nodosa	Lymphoma	Sarcoidosis	Appendicitis
Typhlitis	Potassium chloride	Henöch-Schönlein purpura	Carcinoid tumor	Amyloidosis	Ischemia
Mycobacterium tuberculosis and avium			Familial Adenomatous Polyposis Coli		Radiation enteritis
Actinomycosis			Hereditary Nonpolyposis Colorectal Cancer		Cryptogenic Multifocal Ulcerating Stenosing Enteritis

Table 1. (*continued*)

Infectious	Drug-related	Vasculitides	Small Bowel neoplasms	Infiltrative	Other
Anisakiasis			Peutz–Jeghers Syndrome		Spondyloarthropathies
Cytomegalovirus					Backwash ileitis
Clostridium difficile					Endometriosis

S2495

Early Esophageal Necrosis: A Food Impaction in an Elderly Patient With Multiple Comorbidities

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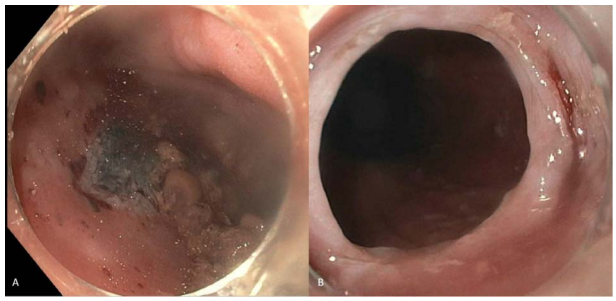
Introduction: Food impactions represent the most common esophageal foreign bodies in adults. Patients can be stratified into emergent, urgent and non-urgent, and in urgent cases upper endoscopy (EGD) is recommended within 24 hours. We present a patient who developed esophageal necrosis well before 24 hours.
Case Description/Methods: An 87-year-old womane with multiple comorbidities presented to the emergency department complaining of chest pain that she attributed to eating salmon and mashed potatoes ~6 hours prior. Physical exam had no crepitus, labs revealed a mild leukocytosis and radiographs were unremarkable. The gastroenterology service obtained a CT scan to rule out esophageal perforation but alerted the operating room (OR) to set up for an EGD. Imaging was notable for findings concerning for a distal esophageal mass with proximal esophageal distention and impacted contents, but no esophageal perforation. EGD was performed 14 hours following the initial ingestion. Patient was tolerating secretions and vitals remained stable. On EGD a large food bolus in the mid esophagus was partially removed with a cap and net retrieval device unearthing a 2x2 cm patch of necrotic tissue. An 18F nasogastric tube (NGT) was placed proximal to necrotic area to facilitate water soluble contrast administration for a CT esophagram which did not suggest perforation. Intravenous antibiotics were initiated, and patient was kept intubated. Repeat EGD the next day was notable for migration of food bolus and interval improvement of necrotic patch. A 10F NGT was placed endoscopically and proton pump inhibitor was initiated. Over the next several days patient was extubated and diet was advanced. Repeat EGD after discharge was notable for a ring which was sequentially dilated to 20mm and at follow up 4 weeks later patient was denying all dysphagia. (Figure)
Discussion: Food impactions represent the most common esophageal foreign bodies in adults. Timing of EGD is widely debated. Guidelines recommend urgent cases to undergo EGD within 24 hours to minimize the risk. However, as highlighted in this case EGD within 24 hours in patients with comorbidities might not be sufficient to prevent complications. This case highlights the need for increased granularity in the stratification of patients with food impactions. We propose that advanced age and/or presence of atherosclerotic disease may warrant earlier EGD.



[2495] **Figure 1.** A: Esophageal necrosis. B: Esophageal ring.

S2496

Endoscopic Source Control of Gram-Negative Bacteremia Secondary to Foreign Body Ingestion - A Rare Case

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Introduction: Foreign body (FB) ingestion is usually observed in the pediatric population; however, adult cases of FB ingestion are not uncommon. Usual FB culprits seen in adults include fish bones, chicken bones, and dentures. Possible complications include dysphagia, complete occlusion with risk of aspiration, and perforation. Such complications warrant retrieval of FB via endoscopic removal or surgical on case-to-case basis. We present a very rare case of FB ingestion resulting in bacteremia necessitating endoscopic removal leading to source control.
Case Description/Methods: The patient is a 58-year-old male with a past medical history of diabetes mellitus, hypertension, and chronic venous stasis. He was initially admitted for sepsis secondary to cellulitis and had to be readmitted due to cultures from the initial admission being positive for slow-growing gram-negative anaerobic rods (GNAR). The most common sources of GNAR are recognized to be genitourinary and gastrointestinal in origin. The patient had no history of benign prostatic hyperplasia, and denied any urinary complaints, with negative urine cultures from the initial admission. The patient did not have any abdominal complaints either; however, cross-sectional abdominal imaging was obtained to assess for any intra- abdominal collections/abscess, which surprisingly showed a 5.3 cm tubular radiopaque focus in the cecum suggestive of a foreign body. Blood cultures from the second admission also grew GNAR, which speciated into capnocytophaga. Gastroenterology was consulted to assist with endoscopic evaluation of this finding with possible retrieval of the foreign body. Colonoscopy was attempted and a chicken bone was found in the cecum which was successfully removed with a snare. Possible inflammation of this bowel segment from cecal trauma could have resulted in transient translocation of the bacteria from the cecum with resultant bacteremia. Subsequent blood cultures after FB removal were negative suggesting adequate source control.
Discussion: GNAR bacteremia warrants workup for genitourinary and gastrointestinal sources. Our case highlights a rare clinical scenario where FB ingestion led to GNAR bacteremia. Though this is a very rare phenomenon, clinicians investigating the causes of GNAR bacteremia should have a broad differential in cases where the culprit is not obvious. Timely identification of the GNAR source and its control is very crucial in treating such population.

S2497

Duodenal Hematoma With Partial SBO After Routine EGD in a Young Female Patient With No History of Hematologic Disorder

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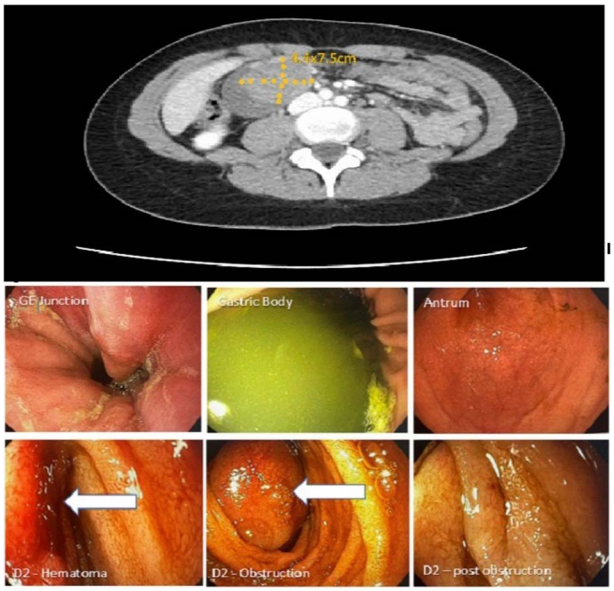
Introduction: Duodenal hematomas are a rare complication of endoscopic biopsy most often seen in children and young adults. Common factors include blunt trauma, anticoagulation, Henoch-Schonlein purpura and blood dyscrasias. They can cause significant morbidity and mortality, including duodenal obstruction, hospitalization and need for intravenous nutrition. Intramural hematomas are more commonly associated with complications. Treatment is generally conservative and consists of electrolyte replacement, decompression, and total parenteral nutrition. If conservative management fails, endoscopic or surgical interventions to relieve the hematoma are required.
Case Description/Methods: A 22-year-old female with past medical history of chronic abdominal pain presented to the emergency department 7 hours after an uncomplicated esophagogastroduodenoscopy (EGD). She complained of abdominal pain, nausea, and vomiting. In the ED her vital signs were stable. Labs were remarkable for a mild leukocytosis and elevated total bilirubin. CT abdomen/pelvis was

concerning for duodenal hematoma (**Figure**, **Top**). Repeat EGD showed intramural duodenal hematoma at the biopsy site with no active bleeding (**Figure, Bottom**). Patient was managed conservatively and discharged home with GI follow up. She returned to the ED at another hospital 4 days later for ongoing nausea, vomiting and abdominal pain. There was interval enlargement of the hematoma with increasing mass effect on the duodenum with no signs of infection or active bleeding. Consideration was given to endoscopic evacuation or percutaneous drainage. No invasive therapy was required, and she was discharged with GI follow up.

Discussion: Hemorrhages such as this one can lead to intramural accumulation of blood resulting in a hematoma that pulls fluid from the surrounding area by osmotic fluid shift. This forms an intraluminal bulge which can lead to duodenal occlusion causing compression on the pancreatic and biliary ducts. Typical symptoms include abdominal pain, nausea, and vomiting. Our patient was successfully managed conservatively. If conservative management fails, next step is endoscopic or surgical evacuation of the hematoma which is typically considered after 7-10 days of conservative therapy or if there are worsening complications. Newer therapies include ultrasonically guided drainage and balloon dilation. Our case illustrates the rare complication of intramural hematoma in a young adult, with no history of hematologic pathology, following routine EGD with duodenal biopsy.



[2497] **Figure 1.** Top - CT abdomen/pelvis showing duodenal hematoma. Bottom - EGD images showing GE junction, gastric contents, antrum, intramural hematoma in the 2nd portion of the duodenum and 2nd portion of duodenum distal to obstruction.

S2498

Endoscopic Treatment of a Dieulafoy's Lesion in the Appendiceal Orifice

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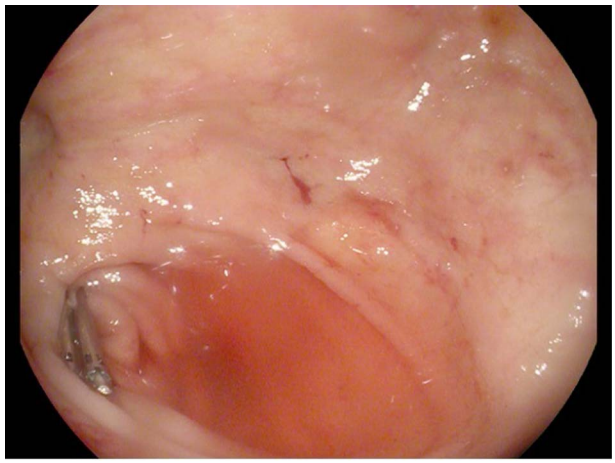
Introduction: A Dieulafoy's lesion, typically a large caliber submucosal artery that erodes gastrointestinal (GI) mucosa, is a less common cause of GI bleeding. While these vascular abnormalities may occur throughout the GI tract, appendiceal Dieulafoy's lesions are exceedingly rare, with described cases often resulting in surgical intervention. We present a case of a Dieulafoy's lesion in the appendiceal orifice leading to massive GI bleeding which was successfully diagnosed and treated endoscopically.

Case Description/Methods: A 75-year-old female with end stage renal disease, hypertension, hyperlipidemia, and heart failure with preserved ejection fraction presented with abdominal pain and rectal bleeding for 2 weeks duration. At onset, she was admitted to an outside hospital where computed tomography (CT) angiography showed aortoiliac and mesenteric atherosclerosis without evidence of large vessel occlusion. Esophagogastroduodenoscopy did not reveal a bleeding source. She reported infraumbilical abdominal pain and continued rectal bleeding and was transferred to our medical center. Upon arrival, the patient was hemodynamically stable with active rectal bleeding on exam. Laboratory analysis revealed hemoglobin of 6.9 grams per deciliter, platelet count of 101 per milliliter, blood urea nitrogen of 6.6 milligrams/deciliter (mg/dl), and creatinine of 6 mg/dl. She was treated with 3 units of packed red blood cell and a proton pump inhibitor. Colonoscopy showed a Dieulafoy's lesion at the appendiceal orifice. Hemostasis was achieved with placement of 2 hemoclips (**Figure**). She was discharged 6 days after colonoscopy without recurrence of bleeding.

Discussion: Only 6 cases of appendiceal Dieulafoy's lesions have been reported in the literature and all were treated with laparoscopic appendectomy (**Table** 1). To our knowledge, this is the first reported case of an appendiceal Dieulafoy's lesion that was successfully treated with endoscopic placement of hemoclips. There is no data comparing the efficacy of endoscopic intervention versus laparoscopic appendectomy in treating appendiceal Dieulafoy's lesions; however, this case highlights that therapeutic endoscopy may be both safe and effective. Further reports are needed to inform recognition and optimal approach to appendiceal Dieulafoy's lesions. Furthermore, in cases where hemostasis is achieved endoscopically, longer term follow-up may inform if appendectomy can be safely avoided.



[2498] **Figure 1.** Successful hemostasis of a Dieulafoy's lesion at the appendiceal orifice after placement of 2 hemoclips.

Table 1. Previously reported Appendiceal Dieulafoy's Lesions% and Outcomes

Case Report	Patient	Clinical presentation and course	Endoscopic hemostasis attempted?	Management?
Xue et al, 2020	21 F	Massive hematochezia with lower abdominal pain and LOC*	N	Laparoscopic appendectomy
Choi et al, 2016	72 M	Hematochezia with associated mild abdominal pain and bloating sensation, previous melena from duodenal ulcer	N	Laparoscopic appendectomy and cecum wedge resection
Johnson et al, 2014	51 M	RLQ# pain, Acute appendicitis with incidental finding of Dieulafoy's lesion on mid-distal appendiceal wall	N	Laparoscopic appendectomy
Reynolds et al, 2013	68 M	Massive hematochezia with perfusion requirement	N	Laparoscopic appendectomy
Lee et al, 2011	22 M	Severe lower GI† bleed	N	Laparoscopic appendectomy
So et al, 1995	42 M	Melena and dizziness	N	Laparoscopic appendectomy

%In all previously reported cases, a Dieulafoy's lesion was diagnosed using colonoscopy to visualize blood emerging from the appendiceal orifice, then subsequent resection revealing an ulcerated appendiceal mucosal lesion and microscopy and histopathology demonstrating tortuous vasculature penetrating the circumferential and longitudinal muscular wall of the appendix. Abbreviations: *Loss of consciousness, #Right lower quadrant, †Gastrointestinal.

S2499

Gastric Adenocarcinoma After Sleeve Gastrectomy

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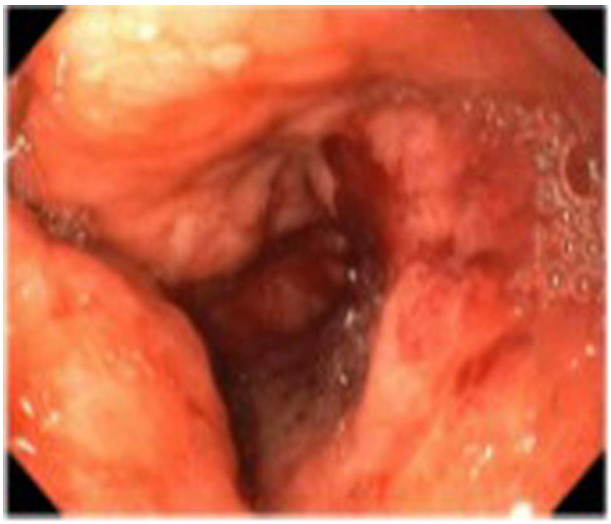
Introduction: Gastric cancer remains the fourth most common cancer worldwide. Unfortunately, it is usually diagnosed in advanced stage. Risk factors include *Helicobacter pylori*, gastroesophageal reflux disease, and obesity. Reported cases of gastric cancer after bariatric surgery have been known to be anecdotal. Laparascopic sleeve gastrectomy for obesity is increasingly preferred by surgeons due to its easy technique combined with excellent weight loss results. However, recently there has been a rising incidence of gastric-esophageal cancers seen post bariatric surgery. Cancer in the distal stomach after gastric bypass was first described in 1991 in a female patient 5 years after the original procedure. We present a case who was found to have gastric adenocarcinoma 7 years post sleeve gastrectomy.
Case Description/Methods: A 65-year-old Hispanic male presented to the emergency department with a complaint of vomiting for 10 days in duration. This was associated with epigastric pain and weight loss. His past medical history was significant for morbid obesity for which he underwent a gastric sleeve 7 years prior to presentation. He had GERD and *H. pylori* treated and eradicated with quadruple therapy. He did not report any family history of GI malignancies. On examination, the vital signs and physical examination were unremarkable. His laboratory values were normal as well. Abdominal radiography, right upper quadrant ultrasound and computed tomography did not show evidence of intra-abdominal pathology. Upper endoscopy showed a circumferential mass in the fundus of the stomach. A biopsy confirmed gastric adenocarcinoma with focal signet cell features. He was started on neoadjuvant therapy and had a J tube put in place in order to tolerate feeds.
Discussion: The aim of this report is to show a case of de-novo gastric adenocarcinoma after bariatric surgery with sleeve gastrectomy. Although, obesity, a known risk factor for gastric carcinoma, increasing trends have been noted with rise in carcinoma after sleeve gastrectomy. It is not known whether bariatric surgery is the cause or the fact that patient had history of *H. pylori* treated that predisposed him to develop the malignancy. The relationship between bariatric surgery and subsequent gastric carcinoma needs further investigation. Patients might be at higher risk of developing gastric adenocarcinoma post sleeve gastrectomy especially if they have history of *H. pylori* infection in the past and this high-risk group might benefit from surveillance EGD.



[2499] **Figure 1.** Endoscopy: Circumferential mass in gastric body.

S2500

Gastrosplenic Fistula - An Open and Closed Case

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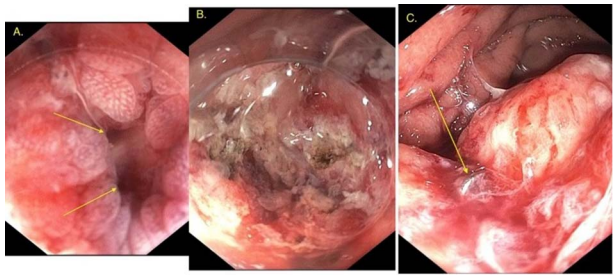
Introduction: In this case, we will discuss endoscopic treatment for immunocompromised patients with gastrosplenic fistulas.
Case Description/Methods: A 36-year-old White female with history of diffuse large B cell lymphoma (DLBCL) on rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisone (R-CHOP) chemotherapy presented with neutropenic fever, persistent cough with deep inspiration, and burning pain in her left shoulder that had worsened since chemotherapy 2 weeks prior. On admission, she was tachycardic and afebrile. White blood cell count was 1,200/mm^3, absolute neutrophil count 120/mm^3, and blood cultures were negative. CT demonstrated improved splenomegaly measuring 6.9 x 7.0 cm (previously 13 x 11 cm) and moderate gas and fluid within the spleen with suspected fistulous communication to the adjacent greater curvature of the stomach. An upper GI series confirmed gastrosplenic fistula (GSF) and fluid collection in the spleen. Gastroenterology and interventional radiology (IR) were consulted. Endoscopy revealed diffuse, severely congested mucosa in the gastric fundus and body, causing difficulty visualizing the fistula. An endocap was attached to the endoscope to assist with visualization. A 5 mm fistula with ulceration was found on the greater curvature of the gastric body. Argon plasma coagulation was performed for tissue devitalization in and around the fistula. The scope was then outfitted with an over-the-scope clip, which successfully closed the fistula (**Figure**). IR then placed an abdominal drain, and fluid cultures grew Streptococcus constellatus, Streptococcus anginosus, Lactobacillus rhamnosus, and Parvimonas micra. Empiric antibiotics were changed to intravenous ertapenem. The patient was able to tolerate a regular diet. Three weeks later, CT abdomen revealed significant decrease in size of splenic gas and fluid collections.
Discussion: GSFs are a rare complication in patients with lymphoma and occur almost exclusively in patients with DLBCL. This patient did not present with typical features such as melena, hematochezia, severe sepsis, severe abdominal pain, nausea, vomiting, or hematemesis. It is important to consider GSF in patients with DLBCL presenting with GI issues. The overwhelming majority of GSF cases are surgical emergencies, but not every case will require surgical intervention. This can be important in patients at increased risk of surgical morbidity and mortality. A GI consult could save patients from unnecessary risk and financial burden.



[2500] **Figure 1.** A. Gastrosplenic fistula (gastric body) B. After APC C. After Clip Deployment.

S2501

Getting to the GIST of It: Rare Case of GIST in Ascending Colon

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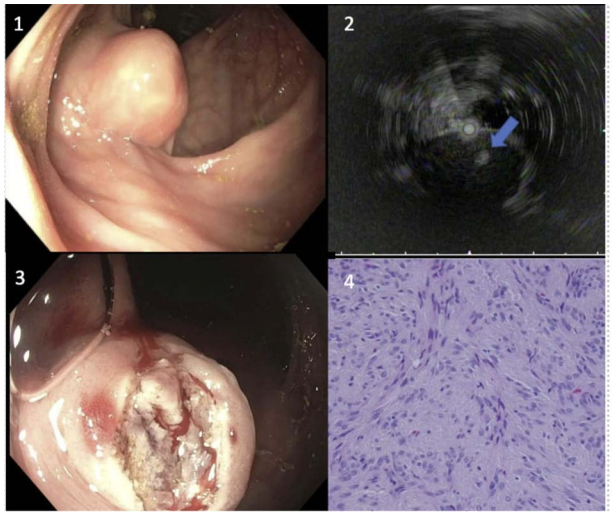
Introduction: Gastrointestinal stromal tumors (GIST) are the most common mesenchymal tumor of the gastrointestinal (GI) tract. GIST is most localized in the stomach (50 – 60%), followed by the small intestine (30 – 40%), and the colon (5-10%). Herein we describe a unique case of an ascending colon GIST requiring advanced endoscopic dissection to confirm the diagnosis.
Case Description/Methods: A 78-year-old male presented with generalized abdominal discomfort associated with heartburn and for colon cancer screening. The upper endoscopy was unremarkable. On colonoscopy, a 4 cm subepithelial lesion was found in the ascending colon (Panel 1). Traditional endoscopic ultrasound (EUS) using a linear or forward viewing scope was not possible given the redundant sigmoid colon, leading to significant scope-looping. The lumen was filled with water and the miniprobe ultrasound catheter was advanced through the working channel of the colonoscope to assess the lesion. Ultrasound revealed a heterogenous, hypoechoic 4 by 3 cm lesion arising from the muscularis propria, suggestive of a mesenchymal tumor (Panel 2). Dissection of the middle portion of the lesion was completed using needle-knife to the muscularis propria and biopsy forceps were used to obtain deep biopsy (Panel 3). A clip was placed due to the small increased risk of delayed bleeding or perforation. Histopathology was positive for CD117, DOG-1, CD34, and h-caldesmon and stains negative for S100, GFAP, and SMA, consistent with GIST (Panel 4). Further imaging of chest, abdomen, pelvis did not show metastatic disease. Surgical evaluation was recommended due to size, heterogeneous appearance on EUS and colonic origin. The patient underwent a right hemicolectomy. Pathology confirmed a low mitotic GIST. The post operative period was uneventful, and he was discharged home. He did not require adjuvant imatinib.

Discussion: Tumor size, mitotic rate, and location have been studied and used as prognostication factors to predict degree of malignancy potential in GIST but is only validated in gastric and small intestinal tumors. Knowledge is limited regarding colonic tumors versus antral tumors since occurrence is rare. Current data suggest colonic tumors are more malignant. Due to the unusual location of the subepithelial lesion and redundant colon, traditional EUS would not work to biopsy the lesion. Needle knife dissection assists in identifying and finding cancerous lesions in challenging situations.



[2501] **Figure 1.** Panel 1. Endoscopic image of colonic subepithelial lesion. Panel 2. EUS demonstrates hypoechoic lesion with small hyperechoic area (blue arrow) in the center of the lesion. Panel 3. Post needle-knife dissection and biopsy. Panel 4. Histopathology reveals spindle cell morphology confirming GIST along with correlating diagnostic stains on H&E stain.

S2502

Gastrointestinal Kaposi Sarcoma: A Case Report

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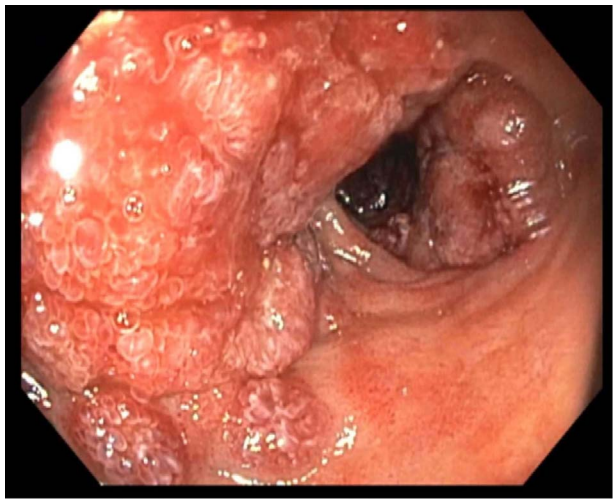
Introduction: Kaposi sarcoma (KS) in the gastrointestinal (GI) tract is an uncommon entity specially without any cutaneous manifestation since the introduction of HAART therapy in HIV patients. Most of the gastrointestinal KS, remains undiagnosed as majority of KS is asymptomatic. Here we present a case of GI- KS in a HIV-AIDS patient.
Case Description/Methods: A 21-year-old male with history of HIV-AIDS came in for nausea, vomiting and hematochezia for 1 month. Lab showed; total CD4 of 10, elevated ALP 435 U/L, AST, ALT, total and direct bilirubin, lipase was normal. There was periodic increase in ALP hence MRCP was done, which revealed multiple hepatic and intrabiliary lesions. On EGD and colonoscopy, a large infiltrative mass, with recent stigmata of bleeding was found in the duodenum (Figure) to the ileum causing a partial obstruction. The biopsy showed extensive spindle cell proliferation with immunostains positive for HHV8 , ERG which was consistent with Kaposi Sarcoma. A liver biopsy was also done which showed non caseating granuloma with lymphocytic infiltrate with portal ductal proliferation and edema. He underwent ERCP revealing multiple segmental moderate biliary strictures in the common bile duct (CBD), left and right intrahepatic branches. A biliary sphincterotomy and a plastic stent in CBD was performed. He was on HAART therapy and anthracycline based chemotherapy was considered, but the patient passed away due to multiorgan failure from sepsis.
Discussion: GI- KS can present as multiple GI symptoms including nausea, vomiting, GI bleeding as in our case or abdominal pain, anemia. (1) However, most of the time gastrointestinal KS remains asymptomatic. (1) Clinician should have high suspicion for GI-KS especially in patients with HIV- AIDS, not in therapy. This will help in the earlier diagnosis and management of GI-KS.



[2502] **Figure 1.** Large infiltrative mass of Kaposi Sarcoma found in duodenum.

S2503

Heads or Tails? A Quarter Impacted Proximal to the Ileocecal Valve Is Endoscopically Retrieved Revealing the Answer

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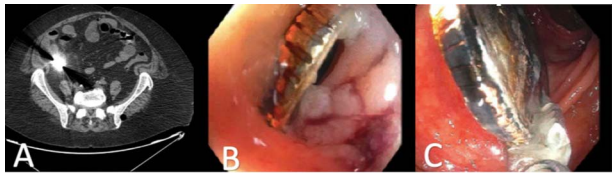
Introduction: Persistent foreign body impaction in adults is rare, as the majority of ingested foreign bodies pass spontaneously. Only 10-20% require endoscopic intervention, and about 1% require surgery. Foreign body ingestion is usually seen in children, psychiatric, or elderly patients. Impaction at the ileocecal valve poses a particular challenge as endoscopic retrieval is technically difficult and may carry an increased risk of perforation.
Case Description/Methods: A 73-year-old female with atrial fibrillation and heart failure presented to the hospital with a 2-week history of right-sided abdominal pain. She was tolerating a regular diet, passing stool and flatus regularly, and had no nausea or vomiting. A CT scan was performed and showed a rounded metallic foreign body within the terminal ileum. The patient denied any known ingestion of a foreign body. She was observed in the hospital for 2 days with no passage of the foreign body on serial abdominal X-rays. On the third day, endoscopic retrieval was attempted. The terminal ileum was successfully intubated, and a metallic foreign body was visualized behind an ulcerated stricture in the terminal ileum. Removal with a rat-tooth forceps was attempted but was unsuccessful due to the presence of an ileal stricture. Surgery was consulted, but ultimately deferred intervention due to the patient's extensive comorbidities. A repeat colonoscopy was performed. The terminal ileum was intubated and was found to be strictured 10cm proximal to the ileocecal valve. An 0.035 inch guidewire was placed across the stricture using endoscopic and fluoroscopic guidance. A 8-10 mmCRE Balloon Dilator was passed over the guidewire. The terminal ileum was dilated, and the foreign body was retrieved with rat-tooth forceps. The metallic object was found to be a US quarter. The following day, the patient's pain fully resolved and she was discharged from the hospital (Figure).
Discussion: Ingested coins can become impacted in the gastrointestinal tract causing obstruction, pain, and rarely perforation. Persistence of an impacted foreign body can cause ulceration, intestinal stricture, and fistula formation. The appropriate management for impacted foreign bodies distal to the ligament of Treitz is close observation as the majority of the impacted objects pass spontaneously. However, if symptoms persist and the foreign body does not pass on serial imaging, endoscopic removal can be performed for symptomatic relief and to avoid further complications such as perforation.



[2503] **Figure 1.** A. CT scan showing coin-like opacity in the terminal ileum. B. Coin impacted in the terminal ileum with surrounding ulceration and stricture. C. Endoscopic retrieval of a US quarter.

S2504

Giant Gastric Cardia Lipoma

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Introduction: Lipomas are slow-growing benign tumors which are rarely found in the gastrointestinal tract. They are more common in the colon, but can also be found in the stomach. Gastric lipomas represent < 3% of benign gastric tumors, and giant gastric lipomas (>4cm) are even less common. Most lesions remain asymptomatic, but pain, dyspepsia, intussusception, obstruction and bleeding occur as their size increases. There are few reports of giant gastric lipomas in the literature. We present an illustrative case.
Case Description/Methods: A 52-year-old Asian male presented to our outpatient clinic with pain and burning in the stomach for about 6 to 8 weeks. He denied nausea, vomiting, early satiety, or weight loss. His symptoms were somewhat improved after eating and with OTC omeprazole. He reported consuming 3-4 drinks of alcohol every few days as well as smoking 1/2 pack per day for the last 2 years. On physical exam vitals were normal and he had mild epigastric tenderness. The only abnormal lab was a mildly elevated ALT of 47. Upper endoscopy revealed a large ulcerated mass with normal overlying mucosa in the gastric cardia. This was biopsied and pathology was reported as chronic active inflammation, ulceration, and granulation tissue. Staining for Helicobacter pylori returned negative. EUS confirmed an intramural, subepithelial lipoma at the lesser gastric curvature. FNA was negative for malignant cells; only lymphocytes and neutrophils were seen. The patient underwent robotic wedge gastrectomy and complete resection of the giant 8 cm gastric lipoma with complete resolution of symptoms 4 weeks post-operatively.
Discussion: Giant gastric lipomas are sparsely reported in the literature. One review suggested that these lesions frequently present with life-threatening UGI bleeding. Diagnostic workup generally includes EGD and abdominopelvic CT. FNA via EUS is pursued when initial biopsies are inconclusive. There is no universally accepted standardization of therapy once lipoma is confirmed. Endoscopic or surgical resection result in a highly favorable prognosis. Our patient was found to have an 8cm lipoma that caused only vague symptoms of dyspepsia and epigastric pain, and proceeded for a totally robotic approach for resection with complete resolution of his presenting complaints. His case illustrates the heterogeneity in possible presentations of this infrequently described scenario. His favorable outcome highlights the success of minimally invasive surgery as a therapeutic modality.

S2505

Holy Cow! When Cecal "Polypectomy" Specimen Shows Cow's Liver

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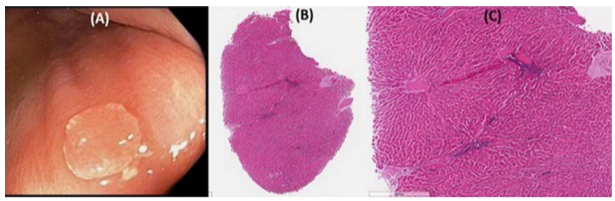
[1]Shalamar Medical & Dental College, Lahore, Punjab, Pakistan; [2]MD, Augusta, GA; [3]Medical College of Georgia - Augusta University, Augusta, GA; [4]Medical College of Georgia at Augusta University, Augusta, GA; [5]Medical College of Georgia, Augusta, GA; [6]Augusta University Medical College of Georiga, Augusta, GA.

Introduction: Patients with history of colon tubular adenomas need surveillance colonoscopies to decrease the risk of colon neoplasia. Sometimes, contamination of polypectomy specimen with ingested food can create confusion while interpreting the results. We present an interesting case of a cecal "polypectomy" specimen that showed liver tissue, that on further investigation was attributed to a cow's liver that the patient ingested the day before his procedure.
Case Description/Methods: A 72-year-old White male with past medical history of colon tubular adenomas, chronic constipation, hypertension, obstructive sleep apnea and class III obesity was referred for surveillance colonoscopy. His constipation was well-controlled with linaclotide 72 mcg daily. He did not report any hematochezia or weight loss. His physical examination including vital signs and abdominal examination was unremarkable. Colonoscopy was performed after a 4-liter polyethylene glycol bowel preparation which revealed 3 polyps. These included a 5 mm Paris 0-1s polyp which was removed via cold snare polypectomy (Figure A), and 2 2 mm sessile polyps in the ascending and descending colon (removed via biopsy forceps). The ascending and descending colon polyps were tubular adenomas on histological examination. We were notified by the reading pathologist that the cecal "polyp" showed liver tissue (Figure B, C) with the concern for iatrogenic perforation of the colon during colonoscopy and accidental biopsy of patient's liver. The patient denied any symptoms suggestive of colonic perforation. Upon further discussion, he informed us that he ate fried cow's liver the day before the procedure which was inadvertently suctioned in the trap after cold snare polypectomy of his cecal polyp.
Discussion: Identification of liver tissue in colonoscopy polypectomy specimens should raise possibility of catastrophic complication such as a perforation or simply a possibility of contamination of specimen with ingested food. Following-up with the patient to clarify the situation is important. A careful review of patient's dietary intake before the colonoscopy procedure can help correctly interpret the unexpected pathology results.



[2505] **Figure 1.** 1A: Paris 0-1s 5 mm cecal polyp during surveillance colonoscopy. Figure 1B: At low power the section shows an eosinophilic homogenous tissue without surface epithelium. Figure 1C: At higher power: sheets of polygonal cells with round, centrally located nuclei, and abundant eosinophilic cytoplasm compatible with hepatocytes. The hepatocytes arranged in plates extend from central vein to portal triad.

S2506

Hit Me With Your Best Shot: Splenic Laceration Post Colonoscopy

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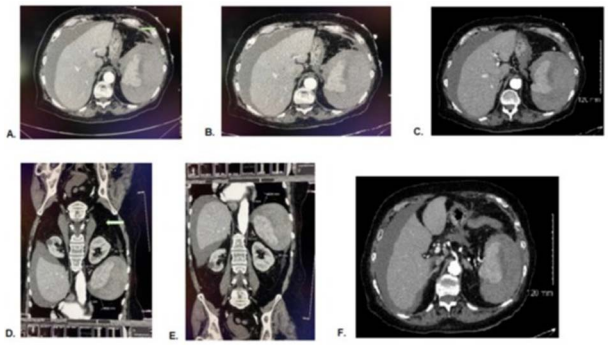
Introduction: With more than 16 million colonoscopies conducted each year in the United States, colonoscopy is the gold standard for detecting any colonic pathology. The most common complications described are intraluminal hemorrhage (0.3–2.1%) and colonic (micro)perforation (0.1–2.5%). Splenic injury during colonoscopy was initially identified by Wherry and Zehner as a rare but life-threatening event. Here, we discuss a case of post colonoscopy splenic laceration associated with multiple polypectomies.
Case Description/Methods: 74-year-old female with hypertension, hyperlipidemia, on no blood thinners, presented 3 days after screening colonoscopy (16 polyps removed) to the hospital with complaints of left upper quadrant abdominal pain, weakness and fatigue without any GI bleeding. Of note, a previous colonoscopy 3 years ago with 18 removed, all benign, was uneventful. All her polyps were sub centimeter, required only hot and cold snare, no endoscopic mucosal resection. Labs demonstrated hemoglobin of 7gm/dl, WBC 15.5K, creatinine 1.7, lactic acid 2.2, and CT the abdomen revealed 3 cm splenic laceration grade 3 with subcapsular hematoma without bleeding (Figure 1). She was transfused 2 units of packed cells with improvement of her hemoglobin to 10.0 after which her blood count remained stable, she was monitored and treated for pain, and discharged successfully home after 2 days with instruction to avoid high-impact activities which could result in further trauma to the spleen.
Discussion: Splenic injury has an incidence ranging from 1 in 100,000 to 1 in 6,387 colonoscopies . The mortality rate for a traumatic splenic injury requiring splenectomy has been reported to be 25%. Advanced age, with an average age of 63.0 years, is thought to be a risk factor for splenic damage, with female patients accounting for 72–75 percent of splenic injuries after colonoscopy. The most likely causes being excessive manipulation done to advance the scope beyond the splenic flexure or traction on the splenocolic ligament. A higher incidence has been observed when biopsies or polypectomies were performed during therapeutic colonoscopies, with polypectomy accounting for a 7-fold increase risk of adverse events. This complication may be avoided with a left lateral position and minimizing the external pressure. Henceforth, we would like to draw your attention to the fact that a clinician should be extra cautious while doing these maneuvers since, while it is a rare complication, it can be life threatening.



[2506] **Figure 1.** A-F - Coronal view of linear lucencies within the spleen suggestive of lacerations. The largest measures 3 cm. There is also an 11 cm subcapsular splenic hematoma. There is no evidence of acute contrast blush. Findings are consistent with grade 3 splenic injury.

S2507

Hepatic Abscess and Septicemia From *Bacteroides Pyogenes* in a Patient Undergoing Endoscopic Retrograde CholangioPancreatography (ERCP)

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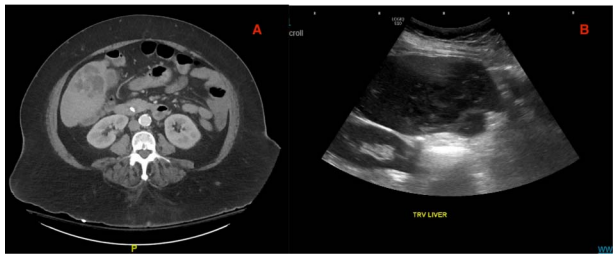
Introduction: Liver abscess is a rare but reported complication of ERCP. Typical organisms are members of the *Enterobacteriaceae* family, such as *Klebsiella* and *Escherichia coli*. We report the first case of a liver abscess and bacteremia caused by *Bacteroides pyogenes,* an anaerobic Gram-negative rod, in a patient who underwent ERCP.
Case Description/Methods: A 73-year-old woman presented to the emergency department at a large academic medical center 11 days after ERCP for obstructive choledocholithiasis with 3 days of severe dyspnea, sore throat, weakness, anorexia, and right upper abdominal discomfort. She had 2 other ERCPs in the past month for work-up of possible extrahepatic cholangiocarcinoma. In the ED, her temperature was 101.3F. Her Blood Pressure was 86/48. She responded to 3L of IV fluids. Labs showed a leukocytosis of 13.0 and AST/ALT of 149/116. A CT of the abdomen showed a 7.2x5.3 cm abscess in the right hepatic lobe. She was started on ceftriaxone and metronidazole. A hepatic drain was inserted into the abscess, and it continued to drain throughout the hospitalization. Cultures of the drain and blood grew *Bacteroides pyogenes*. The patient was discharged on hospital day 6 with a PICC line to complete a 28-day course of ceftriaxone 2g daily and metronidazole 500mg 3 times daily (Figure).
Discussion: Hepatic abscesses are rare, serious complications of ERCP, with mortality ranging from 6-15%. Most hepatic abscesses in the US are caused by native aerobic flora, such as *Enterobacter, Streptococci, Staphylococci, or Enterococci* spp. This patient presented with a hepatic abscess and septicemia from *B. pyogenes,* an anaerobic Gram-negative rod found in the oral flora of dogs and cats that may causes wound infections and can rarely cause septicemia in persons with dog bites. This happened 11 days after her third ERCP within 2 months. She had no traumatic dog exposure but did admit to having a dog that gave her frequent "kisses." There has been one other case of hepatic abscess and septicemia from *B. pyogenes* reported, and 13 cases of *B. pyogenes* septicemia reported in total, with only 2 cases not having had a traumatic animal bite. This is the first case of *B. pyogenes* causing hepatic abscess and septicemia after ERCPs. This highlights the need to ensure empiric antibiotic therapy for liver abscess covers anaerobes and indicates that more studies are needed to understand the pathologic potential of anaerobes such as *B. pyogenes,* which appear to be increasing in systemic disease incidence.



[2507] **Figure 1.** A. Axial CT demonstrating a loculated rim-enhancing fluid collection in the right hepatic lobe adjacent to the gallbladder fossa consistent with hepatic abscess. B. The hypoechoic abscess from a transverse hepatic view.

S2508

Ischemic Gastritis With Gastric Pneumatosis and Portal Venous Gas

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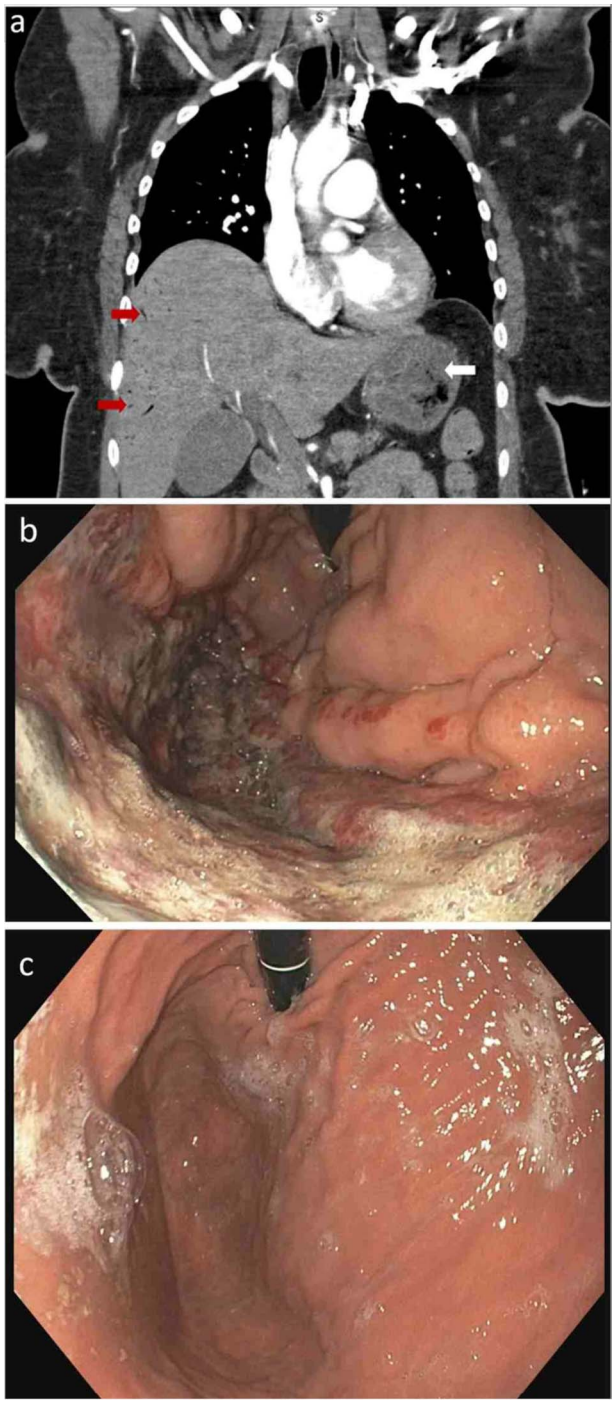
Introduction: Gastric ischemia is rare due to extensive collateral blood supply to the stomach, but if it occurs is associated with poor prognosis. We present the case of acute severe gastric ischemia in the context of severe hypotension with demonstration of portal venous gas (PVG) and gastric wall pneumatosis. The inciting event was a suspected gastric volvulus which had spontaneously resolved by the time of radiologic and endoscopic evaluation. This case highlights the successful conservative management of this dreaded clinical condition.
Case Description/Methods: A 50-year-old African American woman presented to the emergency department with 1-day history of severe lower retrosternal and epigastric pain with persistent nausea, coffee ground emesis and retching. Examination revealed an ill-appearing, tachycardic, hypotensive (blood pressure 70/41mmHg) female with epigastric tenderness. The rest of vitals, physical exam, EKG and chest x-ray were normal. Basic labs after initial fluid resuscitation noted WBC of $12.5x10^9$/L. Troponin, electrolytes, liver enzymes and lactic acid were normal. Chest CT angiogram showed peripheral hepatic PVG (Figure A, red arrows) and a thickened gastric wall with pneumatosis (Figure A, white arrow) suggestive of gastric ischemia. No evidence of pulmonary embolism, bowel perforation or vascular abnormality was found. Esophagogastroduodenoscopy (EGD) revealed extensive necrotic ulcerative changes along gastric greater curvature from fundus to body consistent with gastric ischemia (Figure B). Treatment included intravenous fluids and proton pump inhibitors, analgesics, IV antibiotics (ceftriaxone and metronidazole) and bowel rest. Patient responded well to treatment and was discharged home after 6 days. Patient remained asymptomatic and a repeat EGD after 12 weeks revealed completely normal appearance of stomach (Figure C).
Discussion: Gastric ischemia may be caused by local vascular abnormalities, systemic hypoperfusion and mechanical obstruction. Typical symptoms include abdominal pain, vomiting and gastric bleeding. The mechanism for developing PVG in bowel ischemia is not fully understood but usually suggests an ominous pathology which may require a prompt surgical intervention. Transient gastric volvulus was suspected as a possible initial trigger, causing hypotension and gastric ischemia as no other etiology was identified. Enhanced provider cognizance of gastric ischemia and appropriate management tailored to each patient's needs should improve clinical outcomes.



[2508] **Figure 1.** Chest CT angiogram showed peripheral hepatic PVG (Figure A, red arrows) and a thickened gastric wall with pneumatosis (Figure A, white arrow). EGD showing extensive necrotic ulcerative changes along gastric greater curvature from fundus to body (Figure B). EGD after 12 weeks showing normal stomach (Figure C).

S2509

Mantle Cell Lymphoma Presenting as Multiple Lymphomatous Polyposis: A Case Report

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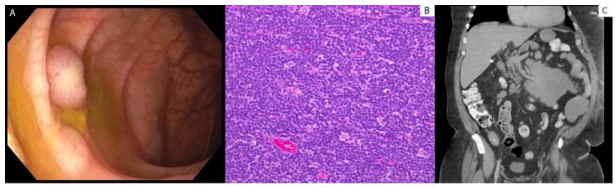
Introduction: Mantle Cell Lymphoma (MCL) typically presents with extensive lymphadenopathy, fevers, night sweats and unintentional weight loss. However, Multiple Lymphomatous Polyposis (MLP), MCL arising from the gastrointestinal tract, is an aggressive malignancy and is infrequently described.
Case Description/Methods: A 68-year-old White man with atrial fibrillation and hypertension presented to the hospital with watery diarrhea, fatigue and intermittent epigastric pain for the past several weeks. He denied melena, hematochezia, heartburn, dysphagia, odynophagia, weight loss, loss of appetite, NSAID use, recent travel or sick contacts. There was no family history of gastrointestinal malignancy. No history of prior endoscopic evaluation. Physical exam was notable for brown stool on rectal exam. Further evaluation revealed Hgb 6.4, MCV 60.9, iron 43, TIBC 442 and iron saturation 10% consistent with iron deficiency anemia. Upper endoscopy was normal. Colonoscopy showed 8 6-16 mm polyps scattered throughout the colon, all of which were resected completely. Analysis showed a range of histology – 3 tubular

adenomas, 1 serrated and 2 hyperplastic polyps. However, histology of 4 polypoid appearing lesions (Figure 1A) showed prominent nodular atypical submucosal lymphoid aggregates (Figure 1B) that were positive for CD20, cyclin D1, weak CD5, and negative for CD10 and CD23. This was consistent with the diagnosis of MCL. CT imaging showed diffuse lymphadenopathy, including bulky disease with a 16.6 x 10.6 cm small bowel mesenteric mass (Figure 1C), along with proximal small bowel and terminal ileal thickening. He was induced with 6 cycles of bendamustine-rituximab combination therapy and maintained on rituximab. A re-staging scan at 27 months showed no evidence of disease progression.
Discussion: We present a case of MCL presenting as MLP with symptoms of anemia, diarrhea and epigastric pain. MCL is a rare B-cell non-Hodgkin's lymphoma that portends a poor prognosis, making early identification and diagnosis critical. Obstruction, GI bleeding, and perforation are common complications for MCL presenting as MLP. It is important to keep MLP on the differential when multiple small nodular or polypoid lesions are identified on colonoscopy. All different types of polyps should be resected or sampled during colonoscopy, and each evaluated by the pathologist to avoid missing clinically significant conditions. Early diagnosis is key to prevent morbidity and mortality in MLP as described in our case.



[2509] **Figure 1.** (A) polypoid lesion (B) nodular atypical submucosal lymphoid aggregates (C) 16.6 x 10.6 cm small bowel mesenteric mass.

S2510

Limitations of Endoscopic Tools for Foreign Body Retrieval: A Case of Massive Ferromagnet Ingestion

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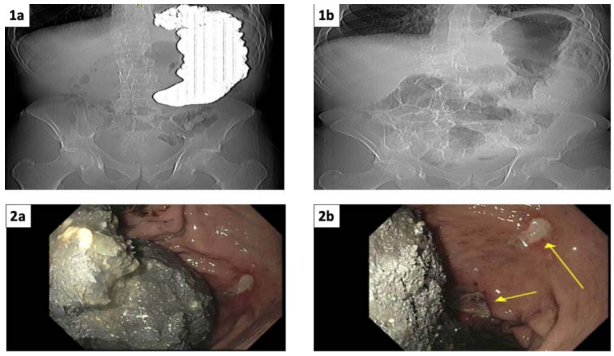
Introduction: Esophagogastroduodenoscopy (EGD) remains the standard of care for foreign body (FB) retrieval. The decision to pursue endoscopic intervention is based on multiple considerations including the probability of passage of the FB, the risk of potential injury caused by ingestion of the foreign body, and the risk of potential injury caused by performing the intervention. We present a case of FB ingestion resulting in practically impossible endoscopic retrieval. We also highlight endoscopic cues that should prompt a gastroenterologist to consider surgical evaluation in high-risk cases.
Case Description/Methods: A 49-year-old man with schizoaffective disorder and a history of multiple ingestions of foreign bodies presented to the hospital for vomiting and diarrhea for 4 days. An abdominal x-ray revealed a large radiopaque structure that conformed to the shape of the stomach in the gastric region [Figure 1a]. EGD revealed multiple large consolidated ovoid masses of gray metal in the gastric body and antrum [Figure 2a]. Endoscopic retrieval was attempted using a large cold snare, which could not be wrapped around or secured around the FB without slipping upon closure. A Roth net was tried with the same unsuccessful result. Bites of the FB using rat-tooth forceps slightly deteriorated the mass and the foreign body material impeded the full-closing of the jaws of the forceps so that the forceps could not be retrieved through the working channel. The malleable material then had to be irrigated and scraped off to allow for reuse. Due to the large size of the FB and small space in the stomach for gastroscope maneuverability and the presence of multiple scattered large and deeply cratered ulcers along the gastric wall, the procedure was aborted to avoid perforation [Figure 2b]. The patient was referred for surgical intervention and soon thereafter underwent FB removal via partial gastrectomy with gastric reconstruction [Figure 1b]. The recovered FB weighed 2,885 grams and measured 32 x 31 x 1.5 cm
Discussion: Care should be practiced when planning and executing the retrieval of foreign bodies. The type, size, and location of the FB, the patient's anatomy, the presence of deep ulceration and the risk of organ perforation are important considerations for the endoscopist. Surgical intervention should be considered when the risk of perforation with endoscopic intervention is high and/or endoscopic attempts at retrieval have been unsuccessful after practically exhausting the endoscopic tools available.



[2510] **Figure 1.** 1a: CT scan without contrast on admission Figure 1b: CT scan without contrast post-surgery. Figure 2a: Foreign body in gastric body Figure 2b: Foreign body with ulcers in gastric body.

S2511

Loose Screws: Removal of Foreign Bodies From the Lower Gastrointestinal Tract

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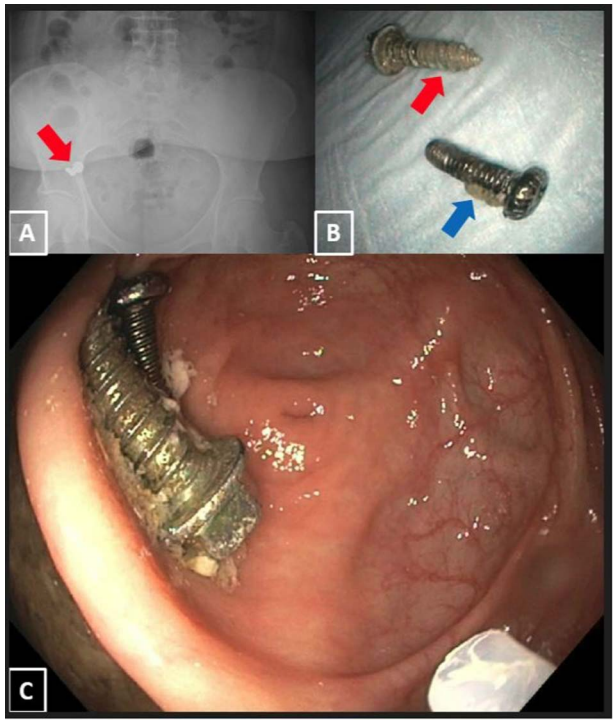
Introduction: The American Society for Gastrointestinal Endoscopy and European Society of Gastrointestinal Endoscopy have both released guidelines on the management of ingested foreign bodies in the upper GI tract, but neither has addressed how to approach foreign bodies that are in the lower gastrointestinal (GI) tract. This is perhaps due to the high likelihood of foreign body passage (>80%) without any interventions, especially once the foreign body is in the lower GI.
Case Description/Methods: A 45-year-old female with a significant psychiatric history presented with a chief complaint of abdominal pain and nausea. She reports visiting her Rastafarian, who made her a "Tack Shake" to help with her symptoms of anxiety and depression. Physical exam was overall unremarkable, and she was persistently hemodynamically stable and afebrile. Laboratory findings were also unremarkable and demonstrated no evidence of other toxic ingestions or infection. Initial imaging showed 4 nails in the colon and 2 adjacent screws in the small bowel, and she was admitted for serial abdominal imaging and monitoring. After 5 days and 8 liters of bowel preparation, the patient had experienced passage of all nails, but the screws had not changed position (Figure A). As this presentation raised concern for failure to pass the ileocecal valve, an ileocolonoscopy was performed 6 days after the initial ingestion of foreign bodies. The screws were located in the cecum and appeared to be intertwined, although subsequent manipulation separated them (Figure C). One screw was removed utilizing a Roth Retrieval Net, while the second screw was removed using a cold snare (Figure B). During retraction, care was taken to orient the sharp end of the screws away from the colonoscope, in an attempt to minimize the risk of injury and perforation. The patient had an uncomplicated postprocedural recovery and was discharged to an inpatient psychiatric facility.

Discussion: This case increases the body of evidence needed to formulate guidelines on the appropriate timeline and indications for endoscopic removal of ingested foreign bodies in the lower GI tract. It also demonstrates 2 successful separate methods for removal of foreign objects from the lower GI tract. Additionally, it highlights a potentially new complementary and alternative medicine practice not previously reported in the literature: a drink/mixture called a "Tack Shake," which contains screws and nails and is purported to assist with anxiety.



[2511] **Figure 1.** 1A: Plain radiograph depicting persistent foreign objects 1B: Removed screws with blunt (blue arrow) and sharp (red arrow) tips 1C: Positioning of the screws in the cecum.

S2512

Multiple Synchronous Gastrointestinal Stromal Tumors: Mediastinal and Gastric

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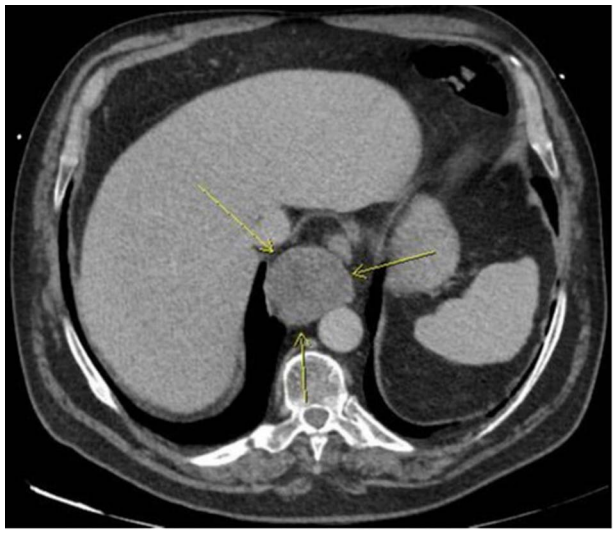
Introduction: Gastrointestinal stromal tumors (GISTs) make up the more common of the 2 groups of mesenchymal GI neoplasms, typically of the subepithelium. GISTs are unique as they are thought to arise from the pacemaker cells of the GI tract, the interstitial cells of Cajal, that give them CD34 positivity and are typically associated with mutation of KIT gene, identified via CD117 positivity. GISTs typically occur in the stomach (40-60%) or jejunum/ileum (25-30%) but can occur anywhere in the gastrointestinal tract, including mediastinum and accessory structures like mesentery, peritoneum or omentum.
Case Description/Methods: A 62-year-old male with a past medical history of type 2 diabetes mellitus presented to the emergency department for abdominal pain. He had one day of epigastric pain radiating to his back, worse with oral intake. He endorsed a 10-pound unintentional weight loss over the previous 2 months. Computed Tomography (CT) of the abdomen with intravenous (IV) contrast demonstrated inflammation in the porta hepatis with accompanying porta lymphadenopathy and a large paraesophageal, retrocrural mass (Figure). Esophagogastroduodenoscopy (EGD) with endoscopic ultrasound (EUS) was performed revealing 5.6 cm paraesophageal mass with central anechoic degeneration and a 1.8 cm fourth layer gastric cardia subepithelial lesion, both suspicious for GIST. Both were biopsied and were CD34 and CD117 positive, consistent with GISTs. The patient was later discharged home with GI follow but was lost to follow up.
Discussion: Although GISTs are the most common type of stromal tumor in the GI tract, they only make up approximately 1% of primary GI malignancies. GISTs have an incidence of 0.68 cases per 100,000 population. Mediastinal GISTs are more unique, with only twelve cases reported. Furthermore, multiple synchronous GISTs have only been reported in 3 other cases when not associated with GIST syndromes. CT is the imaging modality of choice for GISTs. GISTs usually appear as smooth, solid masses easily seen with CT scan. EGD is especially useful for diagnosing GISTs if located in the esophagus, stomach or duodenum appearing as smooth, submucosal masses with possible central ulceration and/or protrusion into the lumen. On EUS, GISTs appear hypoechoic, homogenous with clear margins arising most commonly from the fourth layer (muscularis propria) and less likely from the second layer (muscularis mucosa). GIST management often consists of surgery and/or imatinib depending on the characteristics of the GIST.



[2512] **Figure 1.** Transverse view computed tomography of the abdomen demonstrating paraesophageal gastrointestinal stromal tumor in the mediastinum.

S2513

Not All That Appears Like Oral Thrush Is Candidiasis: A Case of Oral Actinomycosis

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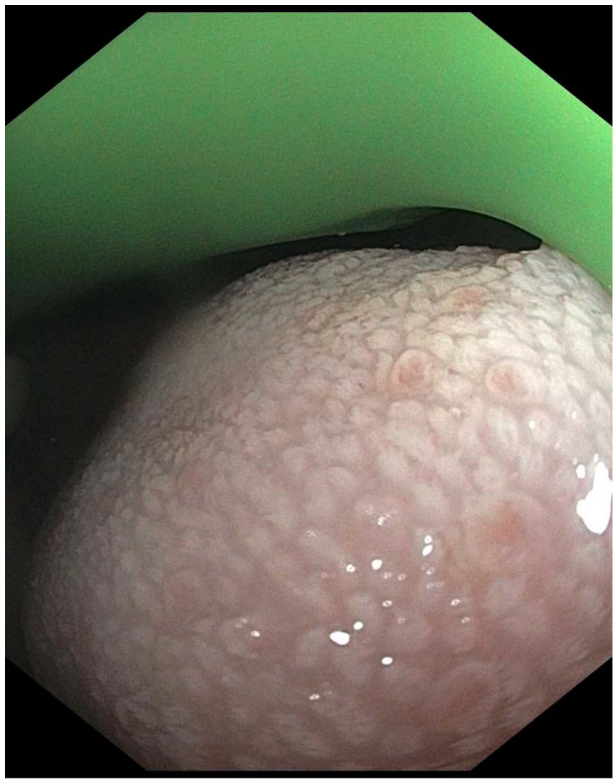
Introduction: Oral thrush is one of the most common infections that affect the oral cavity. The oral candidiasis lesions classically present as whitish confluent plaques on oral cavity examination of tongue, palate, and buccal mucosa. Oral thrush has long been associated with overgrowth of Candida albicans in the mouth in dialysis dependent patients, diabetics, immunocompromised, and who are on corticosteroid therapy. In this abstract we present a case of oral actinomycosis mimicking oral thrush upon presentation.
Case Description/Methods: 51-year-old female a history of squamous cell esophageal cancer status post distal esophagectomy and gastric pull through operation 5 years ago. She with a presented with a chief complaint of odynophagia and recurrent episodes of dysphagia for solid foods that has been worsening since past few weeks. About 6 months ago the patient had an upper endoscopy, which was significant for acute gastritis and pyloric stenosis, which was dilated. No obvious thrush was identified during that visit. Patient was not on any immunosuppressive medication. A repeat upper endoscopy was performed at this visit which was revealing of thrush in the oropharyngeal area and chronic gastritis. Tongue brushings were obtained for cytopathological analysis, which were suggestive of actinomyces infection. The patient was started on amoxicillin therapy for 2 weeks, which resulted in resolution of thrush as well as her clinical symptoms. Other treatment alternatives for actinomycosis include doxycycline, clindamycin, ceftriaxone, and imipenem (Figure).
Discussion: Actinomyces is a rare bacterium often found in the head and neck region. They are partially acid-fast, filamentous gram-positive microorganisms. They were originally classified with fungi organisms as they possess hyphae. Actinomyces is considered to cause chronic suppurative infection. However, actinomycosis infection of the tongue is rare, it usually presents as an abscess formation, draining sinus tracts, fistulae, and tissue fibrosis. The gold standard for the diagnosis of Actinomyces is histological examination. Identification of the underlying pathogen is crucial for management of these patients. Candida is treated with antifungals, however, for actinomyces the treatment is penicillin group of antibiotics. Therefore, it is important to have awareness for actinomyces in the setting of oral thrush for appropriate treatment.



[2513] **Figure 1.** Endoscopic Findings.

S2514

More Than Skin Deep: Kaposi Sarcoma of the Gastrointestinal Tract

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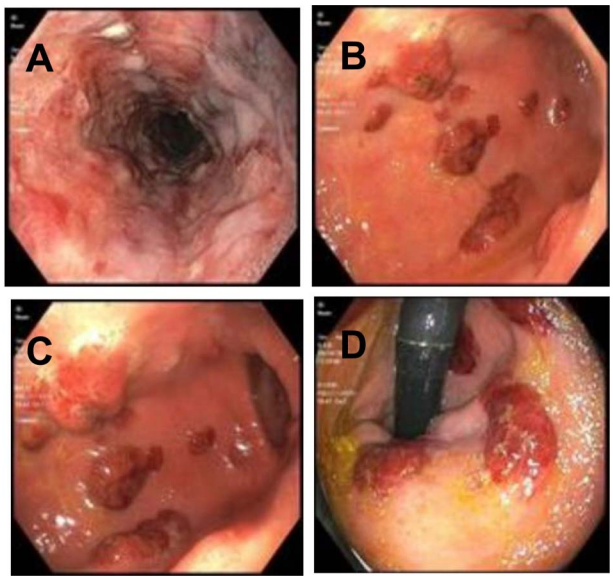
Introduction: Although gastrointestinal Kaposi sarcoma is usually asymptomatic, some patients present with abdominal pain and warrant endoscopic evaluation. Here, we report a case presentation of 40-year-old male with no past medical history who presented with a 1-year history of dysphagia, abdominal pain, and decreased oral intake.
Case Description/Methods: Social history was significant for unprotected sexual intercourse. Physical exam was significant right upper quadrant abdominal pain and diffuse painless, purple, maculopapular skin lesions. Initial labs included: WBC 5.2 K/cumm, Hg 12.9 g/dL, MCV 82.5 fL, platelet 220 K/cumm, BUN 16 mg/dL, Cr 0.8 mg/dL, AST 18 U/L, ALT 19 U/L, alkaline phosphatase 87 U/L, total bilirubin 0.3 mg/dL, albumin 3.6 g/dL. Other labs included: positive HIV-1 antibody, HIV-1 RNA 343K copies/mL, CD4 count of 38/cumm. Positive syphilis with 1:1 titer. Chlamydia, gonorrhea, and acute viral hepatitis panel were negative. CT abdomen and pelvis showed thickening of the ascending colon and prominent omental, mesenteric, inguinal lymphadenopathy. On EGD, grade D esophagitis and numerous violaceous lesions seen throughout the gastric antrum, fundus, and duodenal bulb. On colonoscopy, several vascular lesions ranging in size from 2-10 cm from rectum to terminal ileum. Cecal and ascending colon biopsies confirmed Kaposi sarcoma with immunohistochemical stains positive for human herpes virus 8. He was started on highly active antiretroviral therapy (HAART) with emtricitabine, tenofovir, and dolutegravir for HIV as well as atovaquone and azithromycin for prophylaxis after consultation with infectious disease. He was also started on pantoprazole for grade D esophagitis and treated with penicillin G for late latent syphilis. He was discharged and referred to medical oncology. On follow-up, patient has completed multiple cycles of paclitaxel. Dysphagia and abdominal pain have improved (Figure).
Discussion: It is important to recognize the utility of endoscopy when patients present with symptomatic gastrointestinal manifestations of Kaposi sarcoma. Visceral involvement of Kaposi sarcoma is associated with poor prognosis. Treatment is usually palliative and aimed at improving symptoms and preventing progression. Depending upon severity and disease burden, HAART is the first-line therapy. Antiretrovirals may decrease proportion of new lesions, promote regression of existing lesions, and improve survival with or without chemotherapy.



[2514] **Figure 1.** (A) Severe grade D esophagitis. (B-C) Numerous purple lesions throughout gastric antrum. (D) Retroflexion with additional violaceous lesions at the gastric fundus.

S2515

Chicken Bone Causing Gastric Perforation With Liver Penetration: Successfully Managed With Endoscopic Removal and Clipping

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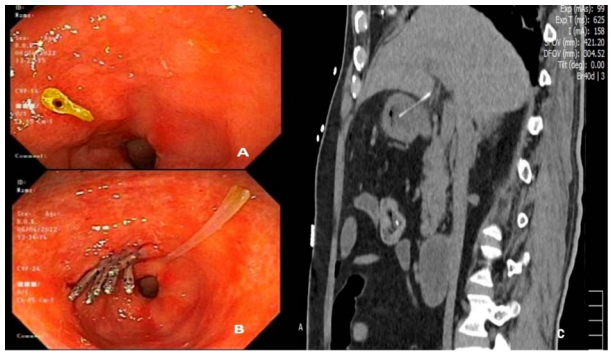
Introduction: Perforation of gastric wall by a chicken bone has rarely been reported. Most foreign bodies (FB) pass through the gastrointestinal tract uneventfully within one week. However, we report a case of chicken bone-induced gastric perforation managed by endoscopic retrieval and closure with clips.
Case Description/Methods: A 70-year-old-man presented with sharp epigastric abdominal pain with nausea and vomiting 4 hours after eating chicken wings. He was hemodynamically stable. The abdomen was soft and non-tender, with normoactive bowel sounds on examination. CT scan revealed a small pneumoperitoneum in the upper abdomen and a 3.4 cm linear radiopaque density within the lumen of the gastric antrum and partially outside directed posteriorly, abutting the left hepatic lobe. An EGD revealed a 3.5 cm long, narrow bone with a hollow center protruding through the antral wall along the lesser curvature. One endoclip was placed adjacent to the FB for easier identification of the location of the perforation. The FB was then extracted from the wall with rat tooth forceps. The gastric wall defect was then closed with 6 endoclips in a zipper-like fashion. Finally, the FB was retrieved with rat tooth forceps by allowing the sharp end to trail with the withdrawal of the gastroscope. Post-procedure, the patient was started on a clear liquid diet 48 hours later, which he tolerated well, and was discharged on post-procedure day 4 (Figure).
Discussion: Accidental foreign body (FB) ingestion is common. Most ingested FB pass spontaneously, with only 10%-20% requiring non-operative intervention. Serious complications include impaction or perforation. A foreign body that perforates the bowel wall may have a wide spectrum of clinical manifestations, from acute generalized peritonitis to chronic abscess formation. Patients with foreign bodies in the stomach, duodenum, and large intestine rarely have perforation due to thick walls and may have delayed presentation. We report the second case of endoscopic retrieval of a chicken bone causing gastric perforation managed endoscopically. Endoclips are often used as a hemostatic tool or to close endoscopic mucosal resection sites. Endoscopic intervention is more likely to be successful in cases of FB ingestion in the absence of peritonitis. In this case, the endoscopic removal of FB resulted in successful non-surgical management of gastric perforation. Placement of initial endoclip prior to bone removal allowed successful closure despite loss of gas after FB removal.



[2515] **Figure 1.** A-Upper Endoscopy shows a sharp hollow chicken bone in gastric antrum. B-Upper Endoscopy showing removal of chicken bone followed by endoscopic clipping. C- CT Abdomen/Pelvis without contrast shows a foreign body perforating the gastric wall and penetrating the liver.

S2516

Peppered in Appearance: A Rare Case of Pseudomelanosis of the Upper Gastrointestinal Tract

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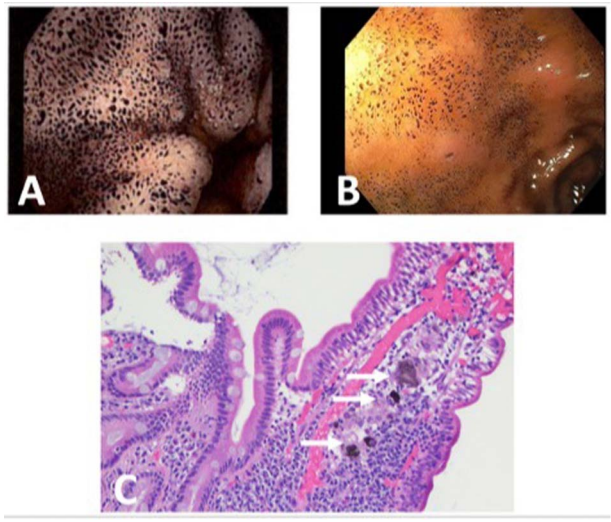
Introduction: Pseudomelanosis of the upper gastrointestinal tract (GI) is a rare condition characterized by a diffuse black-brown speckled pigmentation within the intestinal mucosa. Usually identified incidentally on endoscopy, upper intestinal pseudomelanosis is more frequently seen in the duodenum, but can rarely also be seen in the gastric body and jejunum. While this condition has been reported in literature, pathogenesis and clinical course are still largely unknown. Here we describe a case of pseudomelanosis in a patient referred for iron deficiency anemia.

Case Description/Methods: An 80-year-old woman with a history notable for hypertension, type 2 diabetes, chronic kidney disease, coronary artery disease, gastroesophageal reflux disease, hypothyroidism, and celiac disease was referred for evaluation of iron deficiency anemia. On review, she had undergone screening colonoscopy 2 years ago, notable for scattered diverticulosis, and upper endoscopy 5 years ago notable only for mild gastritis. Medications included: aspirin, hydralazine, metoprolol, losartan, atorvastatin, pantoprazole, ferrous sulfate, and insulin glargine. She initially underwent video capsule endoscopy, revealing mild non-erosive gastropathy and scattered black pigmentation in the duodenum (Figure 1A). She subsequently underwent upper endoscopy demonstrating scattered pigmentation in the gastric antrum, duodenum, and proximal jejunum (Figure 1B). Duodenal biopsies revealed pigment laden macrophages within the mucosa consistent with pseudomelanosis duodeni (Figure 1C).
Discussion: Pseudomelanosis of the upper intestinal tract is a rare and poorly understood condition. While considered benign, it has been associated with various conditions including hypertension, diabetes mellites, chronic kidney disease, gastrointestinal bleeding, and with medications including oral iron supplements and diuretics—many of which were seen in this case. Unlike colonic pseudomelanosis, which is histologically characterized by accumulation of lipofuscin within the colonic mucosa and is associated with laxative use, pseudomelanosis of the upper intestinal tract is histologically distinct, characterized by accumulation of ferrous sulfate containing compounds. To date, pathogenesis of the condition remains unclear. Given the rarity of upper intestinal pseudomelanosis, prognosis and treatment have also yet to be determined. This reports aims to increase awareness of this rare and incompletely understood condition.



[2516] **Figure 1.** (A) Capsule endoscopy demonstrating scattered black-brown pigmentation within the duodenal mucosa. (B) Endoscopic view of the duodenal bulb with scattered foci of pigmentation. (C) Duodenal biopsy demonstrating pigment laden macrophages (white arrows) consistent with pseudomelanosis.

S2517

Pill Prep Problems? Erosive Gastritis and Peptic Ulcers due to Sodium Sulfate-Based Tablet Bowel Prep

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Introduction: SUTAB is the second ever tablet formulation for bowel preparation. It became FDA approved in 2020 based on 2 randomized studies in which SUTAB provided noninferior bowel cleansing when compared to other commonly used FDA approved preparations. These randomized studies focused only on colonoscopies, possibly ignoring SUTAB's effects on the upper GI tract. Endoscopists have recently been noticing significant adverse side effects from SUTAB, notably erosive gastritis and peptic ulcers in patients scheduled for same day bidirectional endoscopy. These findings were not noted by the studies used for FDA approval. SUTAB is a sodium sulfate based tablet composed of 3 main active ingredients: sodium sulfate, magnesium sulfate, and potassium chloride. SUTAB is taken as a 2-day split dose regimen of 24 tablets with large volumes of water. The most common adverse side effects published for SUTAB include nausea, abdominal distension, vomiting, and abdominal discomfort. Any mention of mucosal ulcerations focused on colonic ulcerations in patients with suspected inflammatory bowel disease or in concurrence with the use of stimulant laxatives.
Case Description/Methods: 5 cases of same day bidirectional endoscopy were examined from 9/2/2021 to 11/15/2021. Indications for upper endoscopy included a history of Barrett's esophagus and/or gastroesophageal acid reflux disease and all patients used SUTAB as the sole bowel preparation. In all cases there was no previous history of erosive gastritis or peptic ulcer disease, however, all upper endoscopies noted signs of moderate to severe erosive gastritis. Two of the cases also noted similarly appearing linear gastric ulcers with black eschars. All patients were subsequently placed on antacid therapy and follow-up endoscopies were performed to assess ulcer healing, which was noted at the time.
Discussion: SUTAB is a relatively new bowel preparation on the market with very little published data on its known side effects. The convenience of a tablet formulation for a bowel preparation that achieves successful bowel cleansing attracts patients and doctors, but it comes with the cost of possible adverse side effects in the upper GI tract. The ingredients in SUTAB are corrosive agents, specifically, potassium chloride has been linked to erosions that are found in the mucosa of the GI tract with prolonged exposure. To better understand this recently noted phenomena, more research is needed to help prevent these unwanted and potentially dangerous side effects.

S2518

Rare Gastrointestinal Manifestations of Metastatic Breast Cancer

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Introduction: Breast cancer is the most common cancer and a leading cause of mortality among women. Breast cancer commonly metastasizes to the lung, liver, bones, and adrenal glands. However, there are rare instances where breast cancer can metastasize to the GI tract, most commonly the stomach. We present a case of a 65-year-old woman diagnosed with breast cancer in 1997 and found to have metastases to the stomach and cecum 19 and 21 years later, respectively.
Case Description/Methods: A 65-year-old female with a past medical history of infiltrating lobular breast carcinoma (ER-positive) status post resection and chemotherapy and PUD presented 19 years later with refractory nausea. EGD showed localized moderate inflammation characterized by congestion, erythema, and friability in the stomach. Pathology (IHC staining) revealed tumor cells that were ER- and CAM5.2-positive and PR-negative. These findings were consistent with metastatic carcinoma with a breast primary. The patient had a subsequent PET scan that was positive for metastasis to the bone, spine, and pelvis and was restarted on hormonal-based chemotherapy. Two years later the patient presented with nausea, vomiting, and loss of appetite. CT of the abdomen with contrast showed a new finding of a 1.2 cm metastasis to the cecum. Colonoscopy showed altered vascular, atrophic, ulcerated mucosa in the cecum and thickening of mucosal folds in the proximal ascending colon. Pathology (IHC staining) revealed neoplastic cells positive for GATA-3 and negative for CDX-2, which support the diagnosis of infiltrating carcinoma from breast primary. The patient was continued on several different lines of chemotherapy.
Discussion: Metastatic disease of the breast to the GI tract is a relatively rare presentation. It can be difficult to detect due to recognition of GI symptoms that are attributed to chemotherapy or a primary GI disease/malignancy. This can lead to delays in diagnosis and treatment. Due to this patient's initial nausea, an EGD was conducted which revealed gastritis. Biopsies were positive for metastatic carcinoma in the stomach consistent with a primary breast cancer. Subsequent colonoscopy revealed metastatic disease to the cecum and ascending colon. Previously reported cases have shown that metastatic breast cancer to the GI tract can be diagnosed up to 30 years later. This highlights the importance of including primary breast cancer metastasis in the differential of ambiguous gastrointestinal symptoms.

S2519

Post-Transplant Lymphoproliferative Disorder Presenting as Iron Deficiency Anemia: A Case Report

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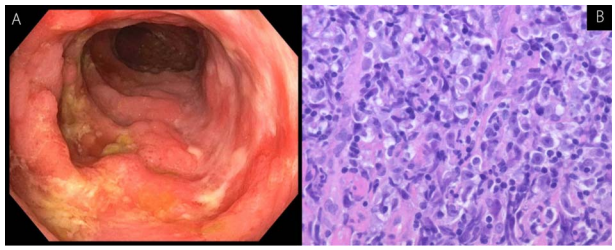
Introduction: Post- Transplant Lymphoproliferative Disease (PTLD) is a rare but well-known complication of transplant recipients on immunosuppression. Even less common is monomorphic B cell type PTLD in a patient negative for the Epstein Barr Virus. Its presentation is highly variable and associated with poor outcomes with later detection.
Case Description/Methods: A 29-year-old male presented with nausea, vomiting, fatigue, and 10-pound unintentional weight loss over several weeks. He had a past medical history of congenital solitary kidney, Focal Segmental Glomerular Sclerosis and underwent deceased donor renal transplant 13 years ago. He had remained on chronic immunosuppression (Mycophenolate, tacrolimus, prednisone). His exam was notable only for conjunctival pallor. Labs revealed WBC 10.8 (15% lymphocytes), anemia (Hgb 5.7), iron saturation 6% and thrombocytosis (platelets 1154). Contrast enhanced CT Abdomen and Pelvis revealed necrotic mesenteric lymphadenopathy and thickened small bowel loops in the left hemiabdomen. Upper endoscopy was normal. Colonoscopy exposed an ulcerated lesion with nodular mucosa in the terminal ileum (Figure 1A). Biopsy revealed monomorphic PTLD Diffuse Large B Cell Lymphoma (DLBCL) with CD20 and CD30 expression (Figure 1B). EBV and CMV staining were negative. Further workup with bone marrow biopsy showed no evidence of leukemia or lymphoma. FISH showed trisomy of chromosome 8, 14, and 18, but no bcl2-IgH fusion translocation or C-MYC translocation. He was treated with weekly Rituximab/Ruxience biosimilar followed by the CHOP chemotherapy regimen. However, surveillance imaging showed increase in size of lymph nodes. He continued to deteriorate over the next 3 months and died thereafter.
Discussion: Transplant recipients are vulnerable to PTLD, with greater than 85% of cases of PTLD occurring in the first-year post-transplant. In our case, we described an aggressive course of B cell type monomorphic PTLD 13 years post-transplant in an EBV seronegative patient on chronic immunosuppressants. Most patients are treated with Rituximab and/or CHOP chemotherapy, however, patients with solid organ transplants often do not tolerate such aggressive treatment. New treatments with low toxicity are needed to further improve outcomes for patients with PTLD. Our case also highlights the importance of adequate small bowel evaluation with terminal ileum intubation during colonoscopy and further advanced imaging if necessary for workup of iron deficiency anemia.



[2519] **Figure 1.** A. ulcerated lesion with nodular mucosa in the terminal ileum B. histology slide showing monomorphic PTLD Diffuse Large B Cell Lymphoma (DLBCL).

S2520

Severe Nausea and Hyperemesis Are Not Always Gastrointestinal: Non-GI Immune-Related Adverse Events Presenting as Upper GI Symptoms

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Introduction: Cancer therapy using immune checkpoint inhibitors (ICI) are increasingly utilized in the treatment of various types of advanced cancers, such as renal cell carcinoma (RCC), lung cancer and melanoma. While the mechanism of action in using the body's innate immune system to fight cancer have been positive, there are documented cases of autoimmune side effects called immune-related adverse events (irAE). We present a patient on ICI that was thought initially to be having GI irAE but was, in fact, something else.
Case Description/Methods: A 61-year-old male with metastatic RCC status post right nephrectomy on Nivolumab and Ipilimumab was admitted due to 2-months of progressive generalized weakness and persistent nausea and vomiting. On presentation, vital signs demonstrated he was hypotensive at 88/66 mmHg and tachycardic at 102 bpm. Physical exam, laboratory parameters (CBC, CMP) and abdominal CT were unremarkable. The GI service was consulted to place a percutaneous endoscopic gastrostomy (PEG) for palliative feeding, but given the patient was on ICI therapy further evaluation was needed. A TSH (21.3mcIU/mL) was elevated and AM cortisol (< 0.5mcg/mL) was low. Hydrocortisone and levothyroxine therapy were immediately instituted. Thyroid and adrenal antibodies were negative and there was no serologic evidence of pituitary dysfunction consistent with an endocrine irAE. An esophagogastroduodenoscopy (EGD) was performed to evaluate for GI irAE, which was unremarkable. His symptoms resolved and he was able to eat with no issues. The patient ultimately did not need a PEG.
Discussion: Programmed cell death-1 (PD-1) and cytotoxic T-lymphocyte antigen 4 (CTLA-4) are proteins primarily involved in suppressing the immune reaction to self-antigens, resulting in immunologic tolerance. Unfortunately, neoplastic cells use the same protein activity to evade the body's immune response. Nivolumab and Ipilimumab selectively inhibit (PD-1) and (CTLA-4), respectively, and lead to an increase in baseline T-cell specific immune response against tumor cells. This process can also result in autoimmune responses to various systems in the body, including gastrointestinal, endocrine, hepatic, pulmonary, dermatologic, and renal systems. With the increased utility of ICI in treating various malignancies, it is of the upmost importance to recognize different irAE to avoid delay in starting lifesaving treatments and to avoid unnecessary procedures like this particular case.

S2521

Sevelamer: An Underreported Cause of Enteritis and Colitis

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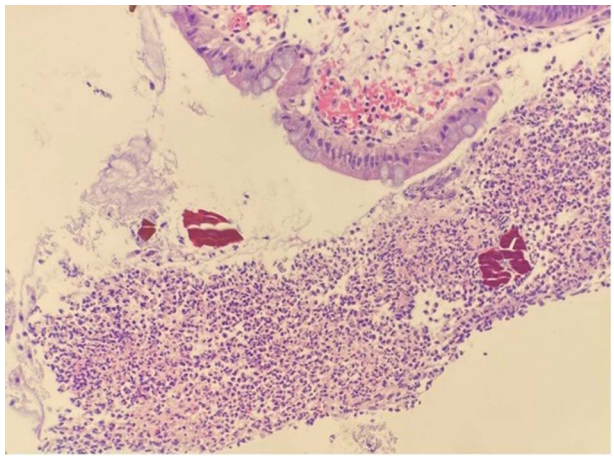
Introduction: Hyperphosphatemia is a common metabolic derangement in patients with end-stage renal disease (ESRD). In addition to dietary constraints, phosphate binders are needed to treat hyperphosphatemia. Sevelamer is the most used resin-based phosphate binder and can crystallize to form concretions. Crystals formed by other resin-based binders such as polystyrene sulfonate (kayexalate) are a well-known cause of gastrointestinal (GI) mucosal injury. However, sevelamer is an underreported culprit. Here, we describe a case of ileitis and colitis caused by sevelamer crystals.
Case Description/Methods: A 65-year-old male veteran with ESRD, secondary hyperparathyroidism treated with sevelamer, and cocaine abuse was admitted for abdominal pain and bloody diarrhea for 3 days. CT scan of the abdomen and pelvis revealed inflammation of the ileum and rectosigmoid. He was started on ciprofloxacin and metronidazole. Stool studies were negative. A colonoscopy revealed an ulcerated and erythematous terminal ileum (TI) between 15cm and 7cm proximal to the ileocecal valve. There was mild ulceration and erythema in the ascending colon. The worst ulceration was between 40cm to 30cm from the anal verge with additional ulceration seen in the rectosigmoid. The colonic mucosa between the ulcerations were normal appearing. Biopsies taken from the TI, ascending colon, and descending colon revealed chronic ileitis and colitis with ulceration, granulation tissue associated crystals, crypt abscess, and fibrinopurulent debris and negative for infection or malignancy. A review the medication reconciliation confirmed no exposure to kayexalate and, thus, concluded that sevelamer was the cause. The patient was advised to stop taking sevelamer. A follow up colonoscopy 6 months later revealed complete mucosal healing (Figure).
Discussion: GI mucosal injury is a rare and underrecognized adverse effect of sevelamer. A limited number of reported cases describe a range of symptoms such as nausea, vomiting, constipation, dysentery, and acute abdomen requiring surgery. The enteritis and colitis caused by sevelamer can be overlooked and presumed to be infectious or ischemic etiology. The pathology can also be missed because of misidentification or failure to identify crystals on histology. Increased awareness of this underreported complication of sevelamer is important for these reasons and for directing appropriate therapy with cessation of this medication in the setting of enteritis or colitis.



[2521] **Figure 1.** H&E stain showing fibrinopurulent exudate (ischemic /acute erosive pattern colitis) and the presence of Sevelamer crystals.

S2522

Spur of the Moment Removal: A Rare Complication of Esophageal Manometry

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University of Kentucky, Lexington, KY.

Introduction: Esophageal manometry is a safe procedure that analyzes the contraction pressure of the esophagus. The well-known risks are patient discomfort, nasal trauma, and retching. To our knowledge and search of present literature, there has not been a reported incident of esophageal manometry probe becoming lodged in the nasopharynx. Here, we present a case of manometry probe meeting resistance upon attempted extubation, ultimately requiring endoscopic removal.
Case Description/Methods: A 53-year-old female with a history of GERD and hiatal hernia presented for routine esophageal manometry as part of anti-reflux surgery workup. The manometry probe was inserted into the right naris and advanced without difficulty. The procedure was performed without complications. Upon extubation, the probe met resistance. Multiple providers attempted extubation, all unsuccessful. The patient experienced increasing discomfort, and efforts to extubate were immediately stopped. A small amount of blood was noted in the right nares, and intranasal lidocaine 2% gel was administered. Planned EGD was then performed with manometry probe in place. Blood was seen in the posterior oropharynx, and manometry probe was visualized passing through the nares and seen in the oropharynx. The gastroscope was then advanced into the stomach where the end of the probe was visible. Removal of the probe was unable to be performed even under sedation, and ultimately the probe had to be sacrificed. The end of the manometry probe was grasped using a snare and the distal end was removed through the mouth. Due to the large connectors, the proximal end of the manometry probe exiting through the naris was cut, and the distal end of the probe was pulled through the mouth without resistance. EGD procedure was then completed. The patient was subsequently evaluated by ENT for nasal obstruction and was found to have a septal deviation with a very large right posterior septal spur that was contacting the lateral nasal wall on nasal endoscopy. We suspect that the spur acted similarly to a one-way valve; allowing easy insertion of the probe and difficulty with removal given the positional anatomy of the spur.
Discussion: In conclusion, we report a novel adverse event from routine manometry procedure leading to traumatic removal and ultimately sacrificing the manometry probe due to a large posterior nasal spur.

S2523

Stuck Scope: Failed Endoscopic Withdrawal After Hemospray

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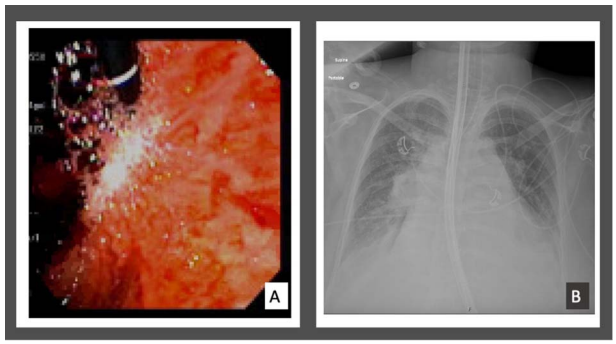
Introduction: Hemostatic spray is a non-contact endoscopic tool that utilizes inert bentonite powder to achieve hemostasis in an acute gastrointestinal hemorrhage. To date, reports of adverse effects following this treatment have been rare. We report an unusual complication of a failed endoscope withdrawal after use of hemostatic spray.
Case Description/Methods: A 43-year-old female, with past medical history of significant alcohol use, presented to an outside ED with large volume hematemesis. She was started on a proton pump inhibitor and octreotide infusion and admitted to the ICU for a suspected upper GI bleed. She underwent an EGD, which showed large amount of bright red blood in the cardia and gastric fundus, alongside a large clot. Active bleeding followed clot removal attempt. The hemospray was applied in a retroflex direction, aimed at the blushing beneath the clot in the fundus. After multiple sprays, hemostasis was achieved. However, the endoscope could not be withdrawn after and adhered at the level of the GE junction by the spray coating. Patient was subsequently intubated for airway protection. Attempts to retroflex and spray water, to dilute the hemospray were limited by scope mobility. Attempts to torque, withdraw or advance the scope resulted in increased bleeding. An attempt to insert another scope alongside the previous one was made, however there was limited space. Due to risk of esophageal perforation with repeat attempt of endoscope removal, patient was transferred to a tertiary care hospital. The GI team was able to remove the scope with scope traction and only encountered mild resistance– 6 hours after the sentinel EGD. Endoscopy was repeated in 48 hours to find source of initial bleeding, however only portal hypertensive gastropathy was encountered with no active bleeding (Figure).
Discussion: Only one such case of a retained endoscope after hemospray use has been reported, where the scope was safely removed under direct endoscopic visualization after 48 hours –the time given to allow for complete elimination of powder from upper GI tract. In our case, the strong adherence between the mucosal surface and surface of endoscope by the bentonite powder likely inhibited endoscope movement, leading to failure of withdrawal of the scope. The slow elimination of hemospray after a few hours likely made scope removal easier. Our case not only reports this rare potential complication of hemospray, but also highlights that safe removal may be possible after 6 hours per-oral without endoscopic visualization.



[2523] **Figure 1.** A - Endoscope position at gastric fundus B - Chest X-ray post-intubation, showing retained scope.

S2524

Successful Retrograde Deep Distal Small Bowel Enteroscopy Using a Novel Device

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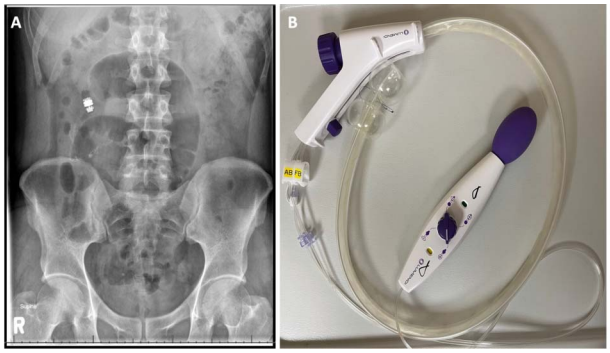
Augusta University Medical College of Georgia, Augusta, GA.

Introduction: Small bowel evaluation is challenging due to its length and contractility. Several techniques have been developed including video capsule endoscopy, push enteroscopy, device-assisted enteroscopy, and intraoperative enteroscopy, all with limitations. We report the first case of retrograde enteroscopy utilizing the DiLumen device (Lumendi Ltd, Westport, CT) attached to a standard colonoscope.
Case Description/Methods: A 39-year-old male with history of Meckel's diverticulectomy, presented with chronic intermittent abdominal pain accompanied by nausea and vomiting. Physical exam and laboratory data were unremarkable. CT abdomen/pelvis showed post-surgical changes from Meckel's diverticulectomy, mild thickening of ileum proximal to the anastomosis with inflammatory mesenteric changes suggestive for inflammatory bowel disease (IBD) but no obvious strictures. EGD and Ileocolonoscopy were performed without endoscopic or pathologic evidence of IBD. A video capsule endoscopy (VCE) was performed with capsule retention noted. Patient's symptoms remained at baseline. Endoscopic capsule retrieval was attempted with retrograde balloon enteroscopy using a standard colonoscope, with assistance of the DiLumen device. The anastomotic site was found at about 80 – 100cm proximal to the ileocecal valve with a tight stricture present. A through-the-scope balloon dilation was performed up to 10 mm with adequate dilation effect. Unfortunately, the colonoscope was unable to pass the stricture. Biopsies of the stricture showed no evidence of IBD. Patient was referred to colorectal surgery for further management (Figure).
Discussion: Balloon assisted enteroscopy (BAE) requires expertise given the prolonged procedure time and technical device management aspects. Retrograde BAE is more challenging compared to the anterograde approach due to colonic navigation using an enteroscope. DiLumen is an endoscopic accessory sheath consisting of 2 balloons that can be manually inflated and deflated as needed. The balloons can facilitate endoscope navigation by shortening and straightening the colon similar to double BAE. A larger colonoscope, rather than an enteroscope, can then be used to perform the procedure. In our case, with a colonoscope, an ileal anastomotic stricture was reached and dilation performed successfully. This opens the potential for retrograde deep ileal intubation, especially in those with a tortuous or redundant colon, where an enteroscope may have difficulty reaching that location.



[2524] **Figure 1.** A: Abdominal plain film showed retained video capsule device in the small bowel; B: Dilumen double balloon device.

S2525

Successful Surgery-Sparing Endoscopic Removal of an ICV Polyp With the Use of Dilumen Device

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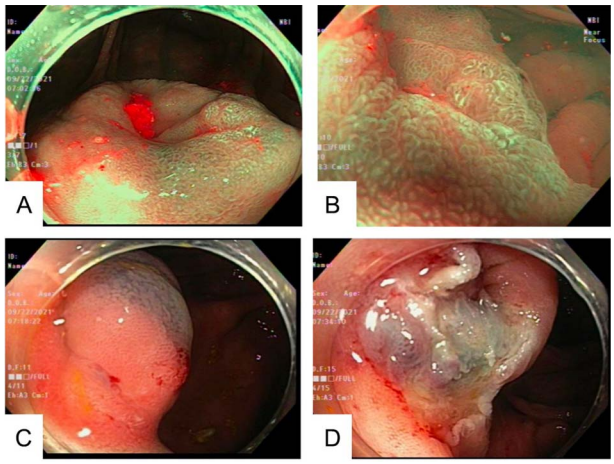
Introduction: Ileocecal valve (ICV) polyps are technically challenging to remove endoscopically and reoccur with a rate of 18.6%. We report on a case of an ileocecal valve polyp that underwent multiple failed attempts of endoscopic removal. It was successfully removed using the Dilumen device.
Case Description/Methods: A 72-year-old White male with known past medical history of CAD, paroxysmal atrial fibrillation not on anticoagulation, referred for completion polypectomy of a 10mm flat ileocecal valve (ICV) polyp after 2 failed colonoscopy removal attempts seen by referring gastroenterologist due to colon tortuosity and polyp location. Pathology of the partially removed polyp was adenoma with high grade dysplasia (HGD). Vitals, physical exam and laboratory data were unremarkable. Patient refused surgical management and prefers endoscopic treatment, if possible. He agreed to a third colonoscopy and, given history of failed attempts, we utilized the Dilumen device to assist with the endoscopic procedure. The device provided stability in positioning the colonoscope that allowed complete removal of the residual ICV polyp via en bloc endoscopic mucosal resection (EMR). The edges were treated with snare tip coagulation. Pathology came back as adenoma with HGD with clear margins. Patient is doing well post-procedure with no issues (Figure).
Discussion: ICV polyps usually pose a great challenge for EMR due to its location and tendency to extend into the terminal ileum and around the valve orifice. This makes it technically difficult to completely resect the lesion and poses a high risk for recurrence. In fact, a study showed that only 76.3% of the large polyp (size >20mm), can be resected endoscopically in the ICV versus 91.3% resection rate in non-ICV area. Frequently, surgical referral would be the alternative option but more complications can occur after invasive surgery. In order to avoid surgery, a few novel techniques have been developed. Dilumen is an endoscopic accessory sheath consisting of 2 balloons that can be manually inflated and deflated as needed. The balloons can facilitate endoscope navigation by shortening and straightening the colon similar to double balloon assisted enteroscopy. This improves access for the endoscope to maneuver in between and remove the polyp. In our patient, it helped greatly in removing the difficult ICV polyp and the patient was able to avoid undergoing surgery.



[2525] **Figure 1.** A - Narrow Band Imaging (NBI) of the ICV polyp B - Near focus evaluation of the ICV polyp C - Submucosal lifting of the ICV polyp D - Post EMR of the ICV polyp.

S2526

Should Endoscopists Look for an Inguinal Hernia Before Beginning a Colonoscopy?

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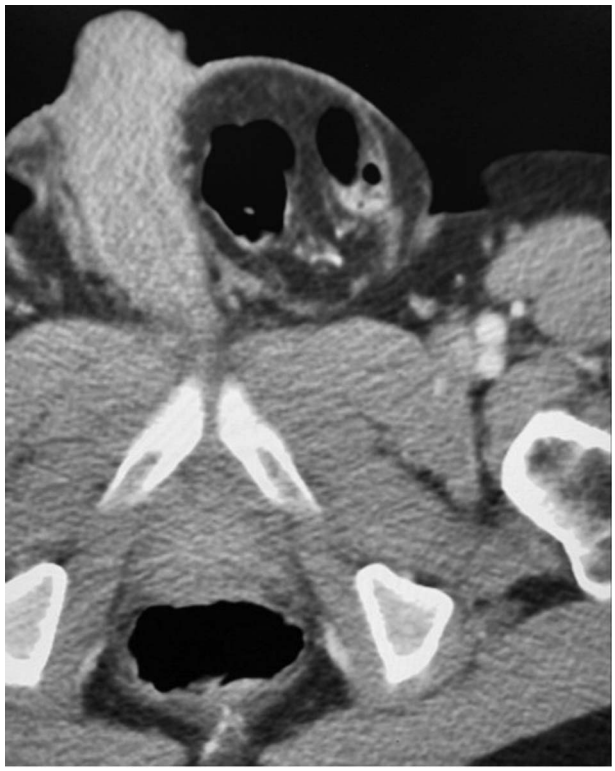
[1]University of Alabama, Bossier City, LA; [2]University of Alabama at Birmingham, Birmingham, AL; [3]University of Alabama, Tuscaloosa, AL; [4]University of Florida, Riverview, FL; [5]GastroCare P.C., Tuscaloosa, AL.

Introduction: Colonoscopes ca potentially become incarcerated in inguinal hernia sacs during routine colonoscopies. The entrapment of colonoscopes may occur when patients present with unknown inguinal hernias. Entrapment can occur during the insertion or withdrawal of the scope. We report a case of a screening colonoscopy resulting in entrapment of a colonoscope in a left inguinal hernia, which was managed by applying pressure to the hernia site.
Case Description/Methods: AH is a 66-year-old, white male who presented to the ambulatory surgical center for a screening colonoscopy. During the procedure, the scope repeatedly ended up in the blind end. It was evident the patient had a left inguinal hernia, and the scope was entering the hernia sac (Figure). Subsequently, the endoscopist withdrew the scope to prevent scope entrapment in the hernia sac, while the assistant put pressure on the hernia site under the patient's gown to reduce the hernia sac. The colonoscopy was reattempted, while the assistant continued to push on the hernia site, and the procedure was completed without further difficulties.
Discussion: There have been 2 previous case reports of scope entrapment in a patient's hernia sac resulting in the scope being removed using either surgery, fluoroscopy, or the pulley method.[1, 2] It is best to avoid performing a colonoscopy for patients with an irreducible hernia. For a reducible hernia, applying pressure on the hernia site may ensure that the scope does not enter the hernia sac. If a patient has an unknown hernia in an open-access colonoscopy, then the endoscopist may not be prepared for a hernia until they start the procedure. Gastroenterologists should be aware of the consequences of patients presenting with unknown inguinal hernias, especially if they are irreducible, to avoid potential complications and emergent operations. Physicians performing colonoscopies should be cognizant of the potential risk to patients with large, irreducible inguinal hernias. Larger studies are needed to definitively mandate this recommendation.



[2526] **Figure 1.** CT of the abdomen revealing left inguinal hernia.

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S2527

The Xiphisternum as a Gastric Subepithelial Lesion

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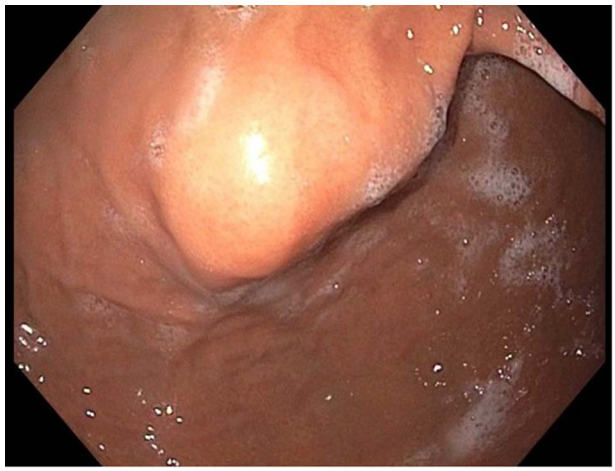
Introduction: The xiphisternum, comprised of cartilage surrounding a core of bone, is located inferior to the sternal body and enlarges with age. The process is usually directed anteriorly relative to the sternal body and the abdominal cavity. However, in approximately 10% of individuals the bony structure is angulated more than 10 degrees posterior to the orientation of the sternal body. Although this anatomical variant is typically asymptomatic, it may be encountered during endoscopy. As such, endoscopists should be familiar with its appearance to ensure correct identification.
Case Description/Methods: A 66-year-old man presented to an outpatient gastroenterology clinic for assessment of diarrhea and bloating. He had a background medical history significant for colon adenocarcinoma with prior right hemicolectomy, prostate cancer, and B Cell lymphoma. During diagnostic EGD, an incidental medium-sized gastric subepithelial lesion was identified (Figure 1). Biopsy of the lesion demonstrated gastric mucosa with foveolar hyperplasia and minimal chronic inflammation. Endoscopic ultrasound was obtained for further characterization. The lesion was visualized causing indentation on the anterior wall of the gastric body. No mucosal abnormalities were present. With respiration, the stomach "rolled over" this lesion, suggesting that the origin was extramural. Endosonography demonstrated a hyperechoic, multilayered, shadowing lesion external to the stomach. Palpation of the epigastrium resulted in indentation of the stomach just below the lesion. A review of sagittal sections of an abdominal CT, performed for unrelated reasons, clarified the underlying etiology for the lesion identified during endoscopy.
Discussion: The CT image demonstrates a posteriorly directed xiphisternum adjacent to the gastric body, causing protrusion of the gastric wall into the stomach which appeared as a subepithelial lesion during endoscopy. Upon visualizing this structure for this patient specifically, it was important to consider lymphoma, or compressive lymphadenopathy, as a differential diagnosis. However, with an intraprocedural examination and information available at the time of the EGD, it is likely that the endoscopic ultrasound could have been avoided. This was likely an incidental finding and not related to his presenting diarrhea and so no intervention was pursued.



[2527] **Figure 1.** Subepithelial gastric lesion identified during endoscopy.

S2528

Think "Inside the Loop:" A Novel Method for Repositioning a Migrated G-J Tube

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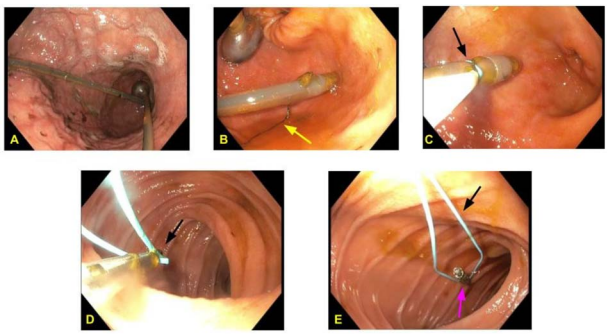
Introduction: Gastrojejunostomy tube (G-J tube) migration is common in patients requiring long term percutaneous enteral feeding. These patients often present with forceful vomiting and decreased PO intake. This case discusses a method for repositioning a migrated G-J tube using an endoloop (detachable snare device) and Resolution Clips.
Case Description/Methods: A 26-year-old female with a history of cystic fibrosis (CF), chronic malnutrition requiring enteral feeds, CF-related liver disease and variceal bleeding presented with 5 days of abdominal pain and coffee ground emesis. Initially, the patient was tachycardic and vomiting intermittently. Bright red blood was visible in the emesis bag. Physical exam was notable for epigastric tenderness without peritoneal signs. The skin around the G-J tube insertion site was non-tender with no signs of infection. CT of the abdomen revealed gastrosplenic varices and appropriate positioning of the enteral tube. There was no evidence of GI perforation or obstruction. An EGD demonstrated a patent gastrostomy tube in the gastric body. The jejunal tail was coiled up against the inflamed lumen of the stomach. The suture at the tip of the tail had degraded, dislodging the tube from its original position along the jejunal wall. There were blood clots in the body of the stomach but no evidence of active bleeding. Given the suspicion that the migrated feeding tube was the cause of the patient's symptoms, a decision was made to reposition it. An endoloop was tied around the tip of the G-J tube to serve as a substitute for the suture. A cold snare was then used to secure the endoloop and drag the tail into the jejunum. The endoloop was secured to the intestinal wall using 2 Resolution Clips. The patient's symptoms resolved after the EGD and she was discharged in stable condition (Figure).
Discussion: Migration of a G-J tube is commonly associated with severe motility disorders, such as cystic fibrosis. Oftentimes, the tube will loop inside the stomach or continue toward the esophagus. The tube itself can cause gastric outlet obstruction, leading to gastric distention, nausea and vomiting. These patients are an aspiration risk and should be initially managed with IV hydration, antiemetics, and stopping of tube feeds. In addition, it is important to assess for complications such as sepsis, hemorrhage, buried bumper, or perforation of the GI tract. If the feeding tube is patent, it is reasonable to have it repositioned based on clinical judgment and provider expertise.



[2528] **Figure 1.** Upper Endoscopy: A. Intact gastrostomy with a patent G-J tube present in the gastric body. The jejunal tail is coiled up in the lumen of the stomach. B. The tip of the G-J tube with surrounding trauma to the body of the stomach, characterized by edema, erythema, and inflammation. The thread at the tip of the G-J tube had degraded (yellow arrow). C. An endoloop was tied at the neck of the tip of the G-J tube (black arrow) to serve as a substitute for the suture. D. A cold snare was used to secure the endoloop (black arrow) and drag the tip of the G-J tube into the jejunum. E. The endoloop (black arrow) attached to the tip of the G-J tube was secured to the wall of the jejunum using a Resolution Clip (pink arrow).

S2529

Threading the Needle: Safely Removing Double-Edged Sharp Foreign Bodies

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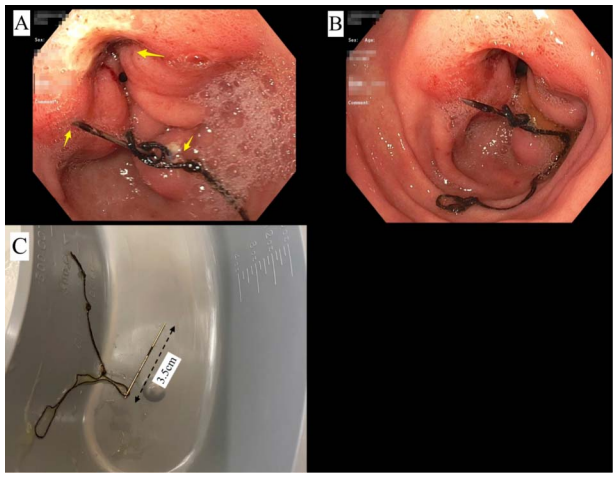
Introduction: Foreign body ingestion is a common phenomenon among individuals with psychiatric disorders, alcohol intoxication, developmental delay, or in incarcerated individuals. Most ingested foreign bodies pass spontaneously without complication but 10-20% require endoscopic intervention. Impaction, perforation, or obstruction often occurs at angulations or narrowing. Early recognition and urgent upper endoscopy (EGD) for foreign body removal may improve clinical outcomes. Here we present a case of melena and abdominal pain secondary to foreign body ingestion.
Case Description/Methods: An 83-year-old male with a past medical history of pulmonary embolism on warfarin, alcohol use disorder, and anxiety presented after 2 black, tarry stools and light-headedness. On admission his vitals were stable and labs were notable for an International normalized ratio (INR) of 3.3 and a Hemoglobin (Hgb) of 12.3g/dL. He was treated with Vitamin K and intravenous pantoprazole twice daily. The next day his Hgb was found to be 8.2g/dL and an EGD was performed revealing antral ulcerations and a 3.5cm sewing needle and thread with both ends penetrating opposite walls of the antrum (Figure A, B). Multiple attempts at removing the needle with rat tooth and jumbo forceps were unsuccessful and the procedure was aborted. Follow up computed tomography imaging did not reveal perigastric

fluid or pneumoperitoneum post-procedurally. On hospital day 3 a repeat EGD was attempted and showed the needle was only perforating mucosa along one side of the gastric body; it was able to be removed via overtube and raptor device (Figure C).

Discussion: Endoscopic removal of sharp ingested foreign bodies can prove to be challenging. Several risk factors including age and duration of impaction are associated with adverse events, such as laceration, perforation, and ulcers. Double pointed/sharp objects are particularly challenging given they are harder to grasp and maneuver. That, in addition to luminal contractions, likely contributed to the difficulty retrieving the needle in this case despite using recommended tools. Had the second endoscopic retrieval attempt failed, the patient would have required surgical evaluation. Overall, the benefit of further endoscopic retrieval attempts versus the risk of perforation from the foreign body or complications from the procedure itself must be weighed case by case.



[2529] **Figure 1.** Endoscopic Evaluation of Patient with Foreign Body A – Foreign body wedged between opposite ends of pylorus (Highlighted by top arrow) B – Full view of sewing needle with thread in gastric antrum C – Sewing needle after removal.

S2530

Utility of Hemostatic Powder Spray for Management of Recently Placed Percutaneous Gastrostomy Tube Tract Bleeding

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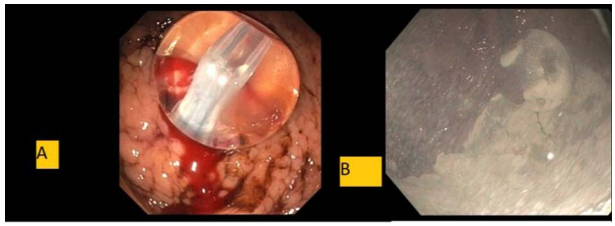
Introduction: Hemodynamically significant bleeding is an uncommon adverse event following percutaneous gastrostomy (PG) tube placement. The usual approach to managing bleeding involves conservative measures, interventional radiology guided interventions and surgery in rare cases. Endoscopic management of bleeding related to recently placed PG tube traditionally has been limited. Here we describe the use of hemostatic powder for management of overt PG tube tract bleeding not responsive to conservative management.

Case Description/Methods: 76-year-old male with a history of squamous cell carcinoma of the right posterolateral tongue presented to the hospital for curative surgical management. A percutaneous gastrostomy (PG) tube was placed by interventional radiology for nutritional support following surgery. Following PG tube placement, the patient developed frank hematemesis, melena, and bloody output from the PG tube. Laboratory data showed worsening anemia with a rapid decrease in hemoglobin from 7.4 g/dL to 4.4 g/dL.. PG tube traction was performed at bedside and patient was transferred to the intensive care unit due to hemodynamic instability and packed red blood cells transfusion was initiated. An emergent upper endoscopy was performed showing active bleeding from the recently placed PG tube tract despite applying PG tube balloon traction (Figure 1A). PG tube balloon traction was discontinued and hemostatic powder spray was applied to the opening of PG tube tract (Figure 1B). After application of hemostatic powder spray, no further bleeding was seen, and balloon traction was reapplied. Patient did well after the procedure and the PG tube was able to be used after 48 hours.

Discussion: Most bleeding related to PG tube placement is limited and can be controlled by simple pressure over the abdominal wound or tightening the bumper against the abdominal wall to compress the gastrostomy tract. If these measures fail patient may require interventional radiology guided intervention or surgery, since endoscopic intervention is limited due to our inability to access the bleeding source within the PG tube tract without removing the tube. Hemostatic powder spray allows us to deliver bentonite to the bleeding within the tract itself by absorbing water and creating a barrier that leads to mechanical tamponade and concentration of clotting factors, resulting in enhanced coagulation. In addition, using hemostatic powder spray allows us to salvage the PG tube.



[2530] **Figure 1.** (A)- Active PG tube tract bleeding despite balloon traction **Figure** 1(B)- Stopped PG tract bleeding after application of hemostatic powder spray.

S2531

When the Potassium Is Low, Should You Look for a Colon Mass?

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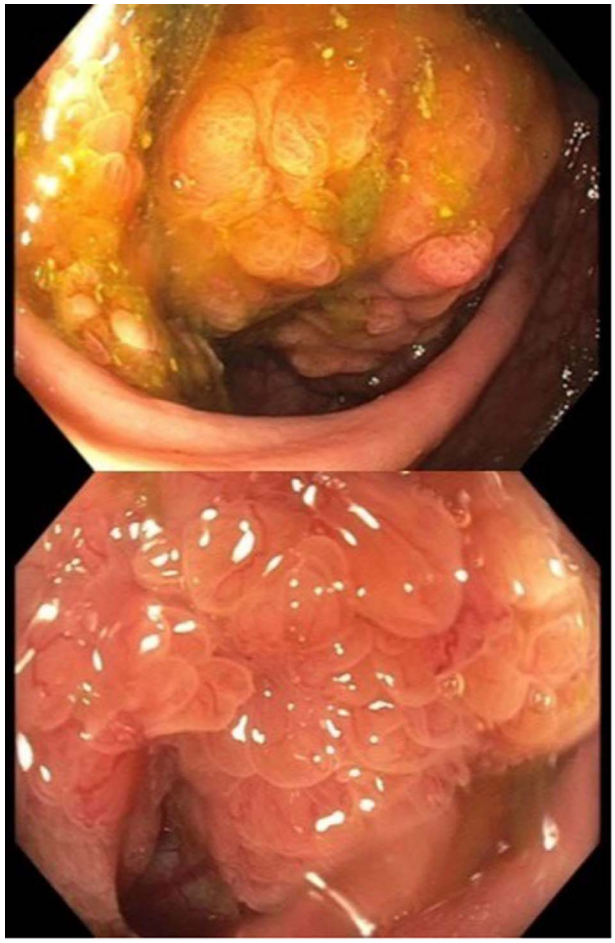
Introduction: Mckittrick-Wheelock syndrome is a rare condition that presents with severe electrolyte disturbances including severe hyponatremia, hypokalemia and renal failure in the setting of distal colorectal tumors. The most common tumors are typically benign villous adenomas, and the most commonly reported site of involvement is the rectum. The tumors are typically large and low in the rectum making them difficult to remove endoscopically. Diagnosis is clinical including laboratory tests, Computed tomography (CT) abdomen and pelvis with contrast and colonoscopy.

Case Description/Methods: 64-year-old female presented with acute onset of altered mental status and diarrhea. She was hemodynamically stable. Physical exam was notable for tenderness to palpation diffusely over her abdomen and she appeared ill. Her white blood cell count was 25.7 K/MM^3, hemoglobin 16.7 g/dL with an MCV of 75 fL, and platelets 406 K/ MM^3. Her chemistry panel showed a sodium 121 mmol/L, potassium 2.0 mmol/L, Chloride 108 mmol/L, bicarbonate 7 mmol/L, serum creatinine 12.12 mg/dL, BUN 173 mg/dL, calcium 8.3 mg/dl, albumin 4.0 g/dL, protein 7.4 g/dL, aspartate aminotransferase 41 U/L, alanine aminotransferase 25, alkaline phosphatase 83 U/L, bilirubin total 0.9 mg/dL. CT abdomen and pelvis without contrast showed an 8.5 x 6.1 cm fungating rectal mass approximately 7 cm from the anal verge. Flexible sigmoidoscopy showed a large polypoid rectal mass approximately 2-thirds of the circumference of the proximal rectum (Figure). Pathology was consistent with a tubular adenoma without

high grade dysplasia or malignancy. The rectal mass could not be resected endoscopically. She required hemodialysis for acute on chronic renal failure. She then underwent laparoscopic hand-assisted low anterior resection with colorectal anastomosis. Final pathology was consistent with a large, villous adenoma with focal high-grade dysplasia, no invasion, thirteen benign lymph nodes, and margins negative for dysplasia.

Discussion: Mckittrick-Wheelock syndrome is a rare presentation of large villous adenomas or adenocarcinomas most commonly seen in the rectum. It presents as secretory diarrhea, acute renal failure, hyponatremia, hypokalemia and hypoproteinemia. Prognosis is good if renal function can be recovered quicily and if the tumor is resected. However there is typically a delay in diagnosis due to its rarity.



[2531] **Figure 1.** Flexible Sigmoidoscopy demonstrates a large polypoid rectal mass encompassing approximately 2-thirds of the circumference of the proximal rectum.

S2532

Unusual Presentation of a Large Duodenal Lipoma

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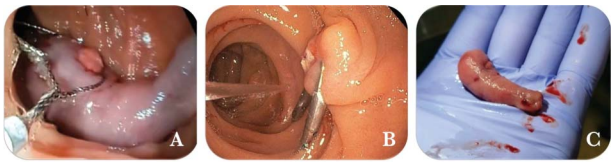
Introduction: Duodenal lipomas are rare benign tumors that are usually asymptomatic. This is the case of a patient who presented with symptomatic anemia secondary to upper GI bleeding due to a large duodenal lipoma.

Case Description/Methods: A 72 y/o male presented with weakness, dyspnea and melena for 2 days. His last colonoscopy showed 2 lipomas in the ascending and transverse colon. Rectal exam showed dark stool. Hemoglobin was 8.2 g/dL. BUN was 12.8 mg/dL, creatinine 0.7 mg/dL and an occult blood test was negative. Upper endoscopy showed a large, ulcerated and pedunculated duodenal polyp in the second portion, measuring approximately 4 cm. Two hemoclips were placed at the base and hot snare polypectomy was used to remove the polyp. After removal, 2 hemoclips were placed for adequate hemostasis. Histopathology showed submucosal lipomatosis, prominent vessels and an overlying duodenal erosion. Immunostain for MDM2 was negative, favoring a benign lipoma. His admission was uneventful with resolution of melena. On 6-month follow-up, the patient denied further bleeding episodes, with stable hemoglobin at 13.5 g/dL (Figure).

Discussion: Lipomas are benign tumors found in the subcutaneous tissue. They rarely occur in the gastrointestinal (GI) tract, with an estimated prevalence of 4%. When present, they are generally found in the colon. Duodenal lipomas are rare, with few reported cases found in literature. Most arise from the submucosa and may be identified as a low-density lesion with the same radiodensity as fat on CT scan or as a hyperechoic mass arising from the submucosa in EUS. They are frequently asymptomatic, and in most cases discovered incidentally. If asymptomatic, observation is typically recommended. Symptoms may include early satiety, gastric outlet obstruction, pain, and intussusception. Hemorrhagic duodenal lipomas are an even rarer occurrence, with severe bleeding usually being caused by an overlying mucosal erosion or ulceration. Some reports suggest that mucosal pressure atrophy may lead to ulcer formation due to necrosis of the underlying mucosa. When symptomatic, management includes endoscopic or surgical resection. Management is dictated by operator experience, tumor size and location. Endoscopic options include wound closure with clips and use of snare polypectomy. Complications may include perforation and delayed bleeding. Duodenal lipomas may present with nonspecific and vague symptoms. For this reason, it is important to consider this in the differential diagnosis of obscure GI bleeding.



[2532] **Figure 1.** A. Snare polypectomy of duodenal lipoma B. Post-polypectomy site C. Resected large pedunculated duodenal polyp measuring 4 cm with distal ulceration.

S2533

An Unusual Finding Lurking in the Colon

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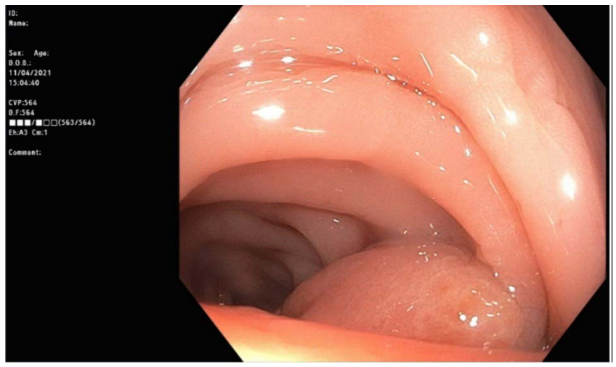
Introduction: Deep Invasive gastrointestinal endometriosis (DIGIE) is rare. Out of all endometriosis cases, 7-12% of cases can have gastrointestinal involvement, ranging from single lesions, to multiple lesions, to full colonic stenosis. Symptoms can include dyspareunia, dysmenorrhea, infertility, dysphasia, diarrhea, constipation, bloating, and rectal bleeding. Here we present a patient who was incidentally found to have endometrioma.
Case Description/Methods: A 24-year-old female with a past medical history significant for polycystic ovarian syndrome, HIV and endometriosis, presented to the hospital with chief complaints of fever, dysuria, hematochezia, and lower abdominal pain which had been ongoing for 3-4 days. On admission, the patient was noted to be hemodynamically stable. Abnormal laboratory results included hematocrit 32.6% (reference range 36-46%), hemoglobin 10.2 g/dL (reference range 12-16 g/dL), mean corpuscular volume 72.4 fL (reference range 80-100 fL), ferritin 15.8 ng/mL (reference range 6.3-137 ng/mL), total iron binding capacity 306 mcg/dL (reference range 265-497 mcg/dL), and iron 19 mcg/dL (reference range 37-170 mcg/dL). The following day, she underwent a colonoscopy which showed isolated diverticulosis involving the sigmoid colon. There was an active oozing diverticulum that was successfully treated with endoscopic clip placement. At the rectosigmoid junction, there was a 3 cm submucosal lesion bulging into the lumen. This appeared to have a smooth surface and was without ulceration. Biopsies were taken and the pathology showed submucosal granulation tissue with chronic inflammatory reaction and iron deposition. CD10 specific immunostains were positive, suggesting the diagnosis of an endometrioma (Figure).
Discussion: This case highlights an incidental finding of DIGIE. It is important to think about colonic involvement in patients with endometriosis who have GI complaints. Rarely, these lesions can cause obstruction and may require surgery. There are currently no formal guidelines or recommendations, with most of these patients being managed on a personalized basis. Management for these patients includes symptomatic therapies, progresterones, colonic shaving, disc excision, and laparoscopic resection. As for our patient, she pursued conservative symptomatic management with close outpatient Gynecology follow up.



[2533] **Figure 1.** A 3 cm submucosal lesion bulging into the lumen at the rectosigmoid junction.

S2534

Late-Onset Juvenile Polyposis and Hereditary Hemorrhagic Telangiectasia Overlap Syndrome

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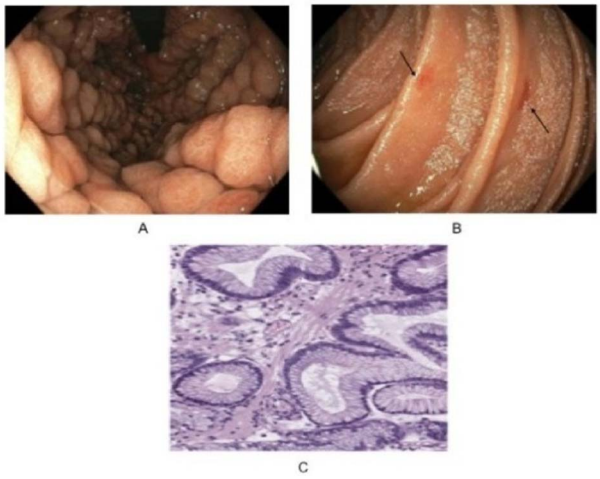
Introduction: Juvenile Polyposis Syndrome (JPS) and Hereditary Hemorrhagic Telangiectasia (HHT) are rare disorders inherited in an autosomal dominant manner. The SMAD4 gene mutation causes a combined syndrome of JPS and HHT. We report a case of late-onset JPS-HHT overlap syndrome.
Case Description/Methods: A 72-year-old man presented with orthostasis and melena for 3 days. He had a lifetime history of recurrent epistaxis. Family history revealed 2 daughters with a history of gastrointestinal (GI) bleeding due to arteriovenous malformations (AVMs) and had required surgical gastrectomies for polyposis due to SMAD4 gene mutation. Physical exam revealed mild tachycardia. Rectal exam showed melena. There were no mucocutaneous telangiectasias. Hemoglobin (Hb) level was 4.4 g/dl and he had an elevated BUN to creatinine ratio. He was resuscitated and transfused. Upper endoscopy revealed multiple non-bleeding semi-sessile polyps in the stomach (Figure 1A). Colonoscopy was unremarkable and CT angiography showed no active bleeding. Capsule endoscopy a week later displayed numerous small bowel angiectasias that were subsequently treated with argon plasma coagulation (Figure 1B). Gastric biopsies showed foveolar hyperplasia and edema of the lamina propria consistent with inflammatory polyp of JPS (Figure 1C). He met the diagnostic criteria for the JPS-HHT overlap syndrome. He declined genetic testing for SMAD4 mutation. Follow-up included oral iron supplementation, and Hb level monitoring. Screening for GI malignancy as well as pulmonary and central nervous system AVMs was recommended.
Discussion: JPS often comes to clinical attention by age 20 years with most presenting with bleeding or anemia due to GI polyps. Individuals with JPS due to SMAD4 mutations often exhibit features of HHT [1] with GI bleeding related to HHT often presenting in the 4th decade of life. Our patient had delayed onset penetrance of the GI manifestations of both HHT and JPS with a first GI bleed at age 72 years. It is important for gastroenterologists to be aware of the varied age-related GI manifestations of the JPS-HHT overlap syndrome.



[2534] **Figure 1.** A. Upper GI endoscopy showing multiple non-bleeding semi-sessile polyps in the stomach. B. Small Bowel Enteroscopy showing angiodysplastic lesions in the small intestine. C. Gastric biopsy showing foveolar hyperplasia and edema of lamina propria, consistent with inflammatory polyp of JPS.

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S2535

***Aeromonas hydrophila* Gastroenteritis Presenting With Profound Watery Diarrhea Following Esophagogastroduodenoscopy**

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Introduction: An inadequate reprocessing process, biofilm formation, or defects in the endoscope could lead to endoscopy-associated infections. Leading pathogens of such infections are *Klebsiella pneumoniae*, *Pseudomonas aeruginosa*, *Escherichia coli*, and *Salmonella enteritidis*. Here we report a rare case of *Aeromonas hydrophila* infection following an esophagogastroduodenoscopy (EGD) which manifested with cholera-like watery diarrhea.
Case Description/Methods: A 55-year-old female with a history of Roux-en-Y gastric bypass (RYGB) complicated by a marginal ulcer, gastroesophageal reflux disease, and type 2 diabetes mellitus presented with 10 days of abdominal cramping, nausea, and profound watery diarrhea. The patient had diarrhea 10-15 times a day, including incontinence overnight, was unable to tolerate an oral diet, and lost 5 kg during this time. One day before the onset of symptoms, the patient received an EGD for assessment of a known marginal ulcer at an outside institution which showed resolution of ulcer. She denied any recent travel, exposure to freshwater, known sick contacts, or consumption of seafood or raw food. Physical examination was significant for epigastric and left upper quadrant abdominal tenderness with a palpable mass in the left upper quadrant without peritoneal signs. Labs were significant for elevated aminotransferases (AST, 106 IU/L; ALT, 318 IU/L) and alkaline phosphatase (157 IU/L) which later decreased during the hospital course. CT abdomen revealed possible intussusception at the jejunojejunal anastomosis, while the upper GI series was negative for the intussusception on the second day of admission. Stool culture was positive for *Aeromonas hydrophila*. Symptoms significantly improved after symptomatic treatment with intravenous volume replacement and a 7-day course of ciprofloxacin administration for prolonged diarrhea.
Discussion: Given symptoms consistent with acute gastroenteritis, positive stool culture, negative history of environmental exposure to a pathogen, and recent EGD, despite an unconfirmed source of infection, we hypothesize that the patient had an *Aeromonas hydrophila* infection most likely from a contaminated endoscope. The patient is suspected to have had several potential risk factors for *Aeromonas hydrophila* infection, including proton pump inhibitor use and possibly atypical microbiome following RYGB. *Aeromonas hydrophila* infection could be prevented by properly washing and drying the endoscope channel to remove biofilm.

S2536

A Case of Gastric Volvulus: Examining a Complication of Paraesophageal Hernia

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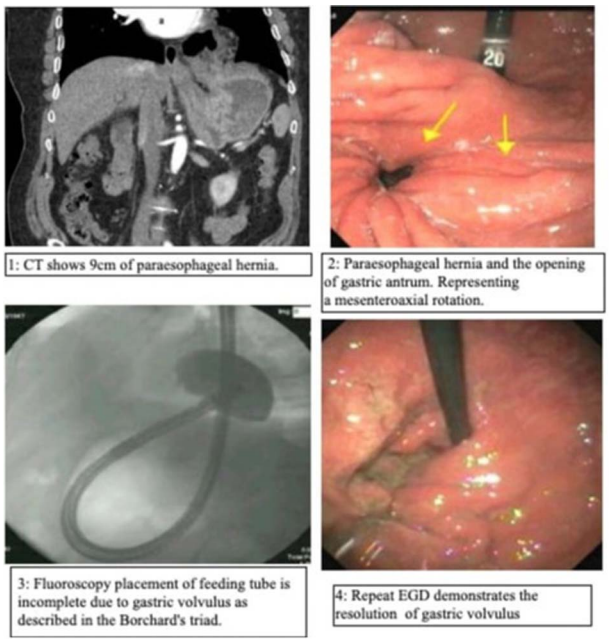
Introduction: Gastric volvulus (GV) is defined as rotation of the stomach beyond 180 degrees. This rotation can further leads to gastric outlet obstruction or strangulation. Without prompt intervention GV can progress to necrosis or stomach perforation. Overall case mortality of GV ranges from 30%-50%. Risk factors associated with GV are age above 50, diaphragmatic abnormalities, phrenic nerve paralysis, kyphoscoliosis, and other abdominal anatomic abnormalities. Symptoms of acute GV as described in Borchardt's triad often include severe epigastric pain, retching without vomiting and inability to pass a nasogastric tube. Borchardt's triad is seen in 70% of reported acute GV. Chronic GV can present with Borchard's triad but often more subtle and nonspecific symptoms, which makes diagnosis difficult. GV further classifies into organoaxial rotation and mesenteroaxial rotation. Mesenteroaxial rotation describes rotation of the antrum of the stomach above the gastroesophageal (GE) junction and is a less commonly seen form of GV. Esophagogastroduodenoscopy (EGD) offers an opportunity for nonsurgical intervention or temporary relief while confirming the anatomic rotations that are often not visualized on computer tomography (CT).
Case Description/Methods: A 73-year-old man with a history of gastroesophageal reflux disease (GERD) presented with 2 weeks of worsening abdominal pain, unintentional weight loss, early satiety, and dysphagia. Patient reported low intensity intermittent sharp abdominal pain in the epigastric region. He associated the pain with food intake and dysphagia with solids. He endorsed nausea but denied vomiting or hematemesis. He has no other significant medical history. His arrival vital signs and labs were all within normal range. CT angiogram of the abdomen revealed a left sided paraesophageal hernia. A subsequent EGD with attempted decompression was performed. Results showed opening of the antrum within the large paraesophageal hernia confirming mesenteroaxial GV. Subsequent day EGD confirmed the resolution of GV after detorsion attempt. Patient underwent surgical paraesophageal hernia repair prior to discharge. He returned to his usual state of health on a recent follow up visit (Figure).
Discussion: GV should be considered as a differential diagnosis for nonspecific abdominal pain. Complete resolution of GV may be achieved after prompt and early EGD. This case highlights that early EGD may prevent progression of acute complications and potentially decrease mortality.



[2536] **Figure 1.** Gastric volvulus on CT, EGD, and resolution.

S2537

A Long and Dangerous Infection: Whipple's Disease Presenting With Concurrent Candida Esophagitis and *H. pylori* Gastritis

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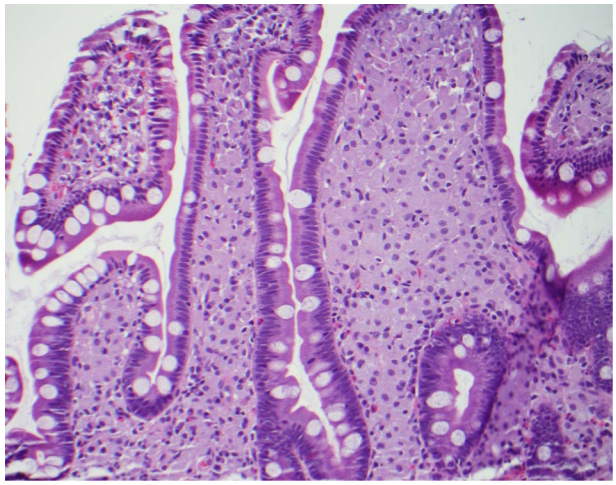
Introduction: Whipple's Disease (WD) is a rare condition which occurs from infection by *Tropheryma whipplei*. It is a debilitating illness and can lead to immunocompromise of the host. We present a case of a patient with WD who also had concomitant esophageal candidiasis and *H. pylori* gastritis.
Case Description/Methods: A 36-year-old male presented with a 3-month history of non-bloody diarrhea, nausea, migratory polyarthralgia, and weight-loss of 30 lbs. EGD and colonoscopy were performed. There were multiple, diminutive white plaques in the esophagus. Biopsies confirmed esophageal candidiasis. Gastric biopsies revealed *H. pylori* infection. The second portion of the duodenum displayed diffuse dilated lacteals with villous blunting. Similar findings were noted in the terminal ileum (TI). Biopsies of the duodenum, TI, and colon revealed foamy macrophage infiltration of the lamina propria that were intensely positive on PAS and PAS-D stains (Figure). Analysis for *Tropheryma whipplei* by DNA PCR was positive. He was started on ceftriaxone for WD with concurrent fluconazole for his esophageal candidiasis, which was presumed to be a complication of his immunocompromised state. Due to potential CNS and cardiac involvement, a lumbar puncture and a transthoracic echocardiogram were obtained, respectively, which were normal. After 2 weeks of receiving ceftriaxone, he was started on doxycycline and hydroxychloroquine with plans to continue treatment for at least one year with repeat endoscopy. His *H. pylori* infection was successfully treated with quadruple therapy. Three months after starting treatment, our patient had regained 20 lbs. and his other symptoms had completely resolved.
Discussion: A similar case of a patient with WD, concomitant esophageal candidiasis, and *H. pylori* gastritis has been reported in the literature. Both patients did not have specific risk factors for esophageal candidiasis, which supports a potential association between WD and esophageal candidiasis. The exact mechanism is unclear but may be related to the immunocompromised state of the host incurred from WD. The frequency of interval endoscopy is not defined in these patients and collaborating with infectious disease specialists to optimize follow-up is essential. Overall, WD is a rare condition that presents a diagnostic challenge, often resulting in an immunocompromised state with multisystem involvement. Long-term multidisciplinary follow-up is advisable after treatment with consideration for repeat endoscopic and histologic evaluation.



[2537] **Figure 1.** Foamy macrophages in the lamina propria, duodenum (20x).

S2538

A Grate Lesson: Abdominal Pain Secondary to Ingested Wire Grill Brush

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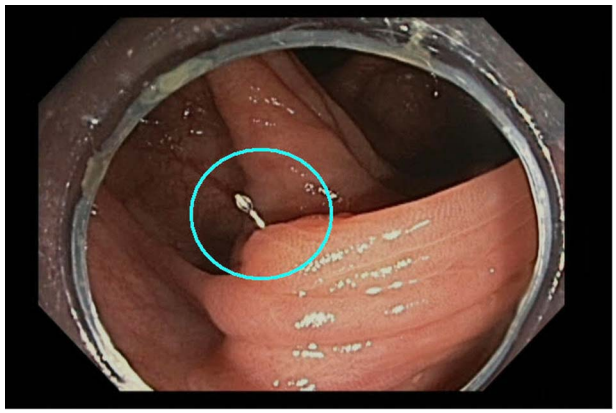
Introduction: An 18-year-old male presented with 3 days of right lower quadrant abdominal pain and 3 weeks of intermittent bright red blood per rectum. Pain was described as sharp 2/10 non-radiating pain at rest but 9/10 with movement. Review of systems was negative for diarrhea, constipation, nausea, emesis or any extra-intestinal symptoms. Patient denied any NSAID, alcohol or illicit drug use though did endorse a family history of Crohn's, Celiac disease and IBS in primary and secondary family members.
Case Description/Methods: Initial abdominal CT noted several nonspecific enlarged fluid-filled loops of small bowel within the right lower quadrant particularly at the terminal ileum. Upon evaluation with colonoscopy, a sharp metallic object was seen protruding about 1mm out of the cecal mucosa near the ileocecal valve (Figure). After several unsuccessful attempts at removing the object with biopsy forceps, a cold snare was looped around the end, closed, and the object was extracted through the working channel.
Discussion: Inspection revealed a sharp thin 1.5cm long metallic foreign body suspected to be a fragment of a wire brush used to clean barbeque grills. Retrospective analysis of CT imaging revealed the metallic object in question. Patient was symptom-free 4 days later with no recurrence of pain.



[2538] **Figure 1.** A sharp metallic object was seen protruding about 1mm out of the cecal mucosa near the ileocecal valve.

S2539

A Large Inflammatory Pseudotumor of the Sigmoid Colon Causing Perforation

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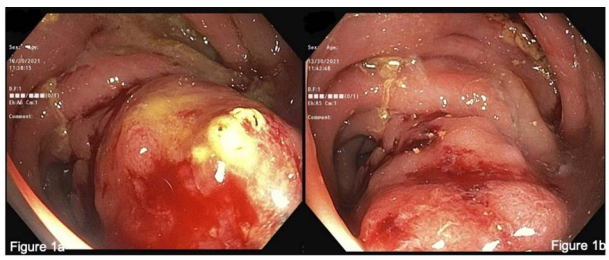
Introduction: Inflammatory pseudotumors (IPT) are rare non-malignant lesions. Lungs are the most common locations of origin. They remain extremely rare in the colon.
Case Description/Methods: An 80-year-old woman underwent colonoscopy for recent diverticulitis. Physical examination and laboratory workup were unremarkable. A 2-month prior Computer tomography (CT) scan revealed sigmoid diverticulosis with segmental wall thickening, suggestive of acute diverticulitis. Colonoscopy demonstrated a large, ulcerated, non-circumferential, nonobstructing, nonbleeding mass in the sigmoid colon (Figure). She developed bowel perforation and underwent exploratory laparotomy with sigmoid and left colectomy, and colostomy. Histopathology revealed numerous abscess sinuses within the colonic wall, extending from the diverticula. Extensive acute and chronic inflammation was also present. There was no evidence of dysplasia or malignancy.
Discussion: Inflammatory pseudotumors may have clinical and radiological features similar to malignancies, and may even recur after resection, however, malignant transformation is rare.



[2539] **Figure 1.** Colonoscopy demonstrating a large, ulcerated, non-circumferential, nonobstructing, nonbleeding mass in the sigmoid colon.

S2540

A Rare Case of Metastatic Esophageal Granular Cell Tumor

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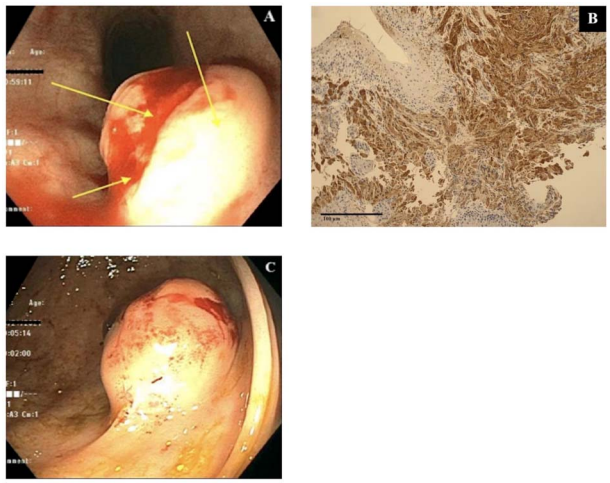
Introduction: Granular cell tumors (GCTs) are thought to originate from Schwann cells and rarely affect the gastrointestinal (GI) tract. Reported cases of GI involvement indicate the esophagus is most affected, while the colon is rarely involved. The majority of GCTs are benign, though approximately 1% can be malignant. We present a rare case of esophageal GCT with metastases to the lung and cecum.
Case Description/Methods: A 59-year-old female with history of colon polyps presented to our gastroenterology office for surveillance colonoscopy. She was incidentally found to have iron-deficiency anemia, and double endoscopy was arranged. Esophagogastroduodenoscopy found a 3 cm submucosal esophageal mass in the upper esophagus with multiple non-bleeding gastric angiodysplastic lesions, and one duodenal lesion, which were treated with argon plasma coagulation. A colonoscopy was aborted due to poor preparation. The esophageal mass biopsy found a granular cell tumor with S100 positivity. She was referred for endoscopic submucosal dissection (ESD) for her esophageal mass but was unfortunately lost to follow up. The patient underwent a series of imaging, including a PET-CT scan showing a 7 mm nodule in the left upper lung lobe with minimal metabolic activity. Three months later, a CT thorax without contrast showed enlargement of the left upper lobe nodule to 1 cm with multiple other small nodules noted. The patient underwent an endobronchial ultrasound with lung biopsy yielding granular cell tumor. Repeat colonoscopy ultimately found a 20 mm polyp in the cecum with pathology again identifying a

granular cell tumor. Repeat PET-CT scan re-demonstrated the mildly FDG avid left upper lobe nodule measuring 1.1 cm but also found a focal area of increased activity in the left anorectal wall. The patient began to experience significant dysphagia and was again referred for ESD which will be completed in the near future (Figure).

Discussion: Granular cell tumors may present localized or with metastases to various organs. The diagnosis of GCT is made via histopathology. In our case, an esophageal GCT was found with suspected spread to the lungs and cecum. Although most tumors are benign with a favorable prognosis, patients may develop symptoms such as dysphagia, cough, abdominal pain, nausea, or chest pain, especially when involving the GI tract. The definitive treatment is surgical or endoscopic removal, as chemotherapy and radiation are rarely effective. Long-term surveillance is essential as tumors may recur following resection.



[2540] **Figure 1.** Upper endoscopy imaging showing 3 cm submucosal mass in upper esophagus (A). Immunohistochemistry image showing positive S100 staining of esophageal mass (B). Colonoscopy imaging showing 20 mm polypoid lesion in the cecum (C).

S2541

A Rare Case of Erosive Gastritis and Melena Related to Gastric Mucosal Calcinosis

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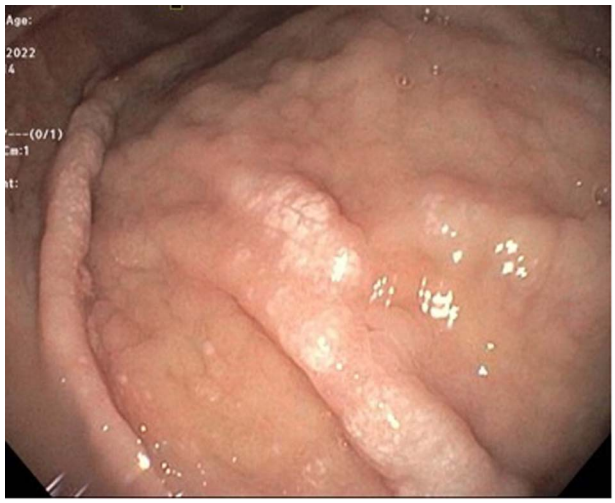
Introduction: Gastric mucosal calcinosis (GMC) is a rare disorder typically found incidentally or at autopsy. GMC can rarely lead to upper gastrointestinal bleeding if it results in severe erosive or ulcerative gastritis. We present a case of a patient with GMC secondary to End-Stage Renal Disease (ESRD).

Case Description/Methods: A 74-year-old male with history of ESRD on peritoneal dialysis, atrial fibrillation, HFrEF, and hypothyroidism was admitted for generalized weakness, abdominal pain, and 4 days of melena. He had been hospitalized one week prior for peritonitis, which was treated with vancomycin and ceftazidime. Review of systems was also notable for odynophagia. He denied dyspnea, chest pain, hematochezia, or hematemesis. Vital signs were notable for tachycardia but were otherwise within normal limits. Physical exam was significant for an irregularly irregular cardiac rhythm, mild abdominal distension, and moderate diffuse abdominal tenderness. Labs were notable for white cell count of 16 per μl, hemoglobin 7.7 g/dl, platelets 236,000 per μl, K 2.5 mmol/l, Ca 6.4 mmol/l, and phosphorus 4.2 mmol/l. CT images showed mild wall thickening of the descending and sigmoid colon with mild mesenteric stranding which may represent colitis. Stool PCR was positive for Clostridium difficile. He subsequently underwent esophagogastroduodenoscopy (EGD) that demonstrated patchy areas of whitish mucosa (Figure) associated with moderate gastric erythema, edema, and erosions in addition to thickening of gastric folds. Gastric biopsies revealed gastric mucosal calcinosis. He was started on fidaxomicin for C. diff colitis. He was continued on proton pump inhibitors with resolution of his melena.

Discussion: GMC, as found in this patient, can be part of metastatic calcinosis, which is the most common type of GMC. It can occur in up to 13% of ESRD patients. Gastric tissue is thought to be more prone to calcification given its relatively intracellular alkalinity. Endoscopic evidence of gastric calcifications is generally seen as 1-5 mm white flat plaques in fundus, body, or antrum. Diagnosis is important in this patient population as GMC can rarely cause ulcerations/necrosis of gastric tissue leading to acute upper gastrointestinal bleeding. Therefore, GMC should be always considered in the differential diagnosis in patients with long history of ESRD presenting with melena.



[2541] **Figure 1.** Endoscopic appearance of gastric mucosal calcinosis.

S2542

A Rare Case of Renal Cell Carcinoma Diagnosed on EGD

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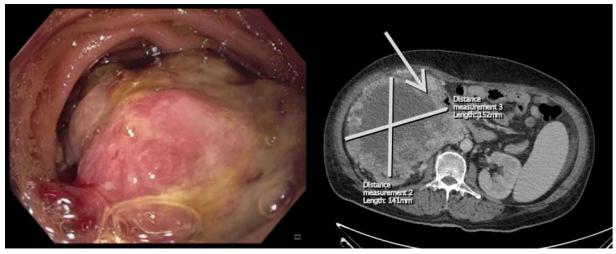
Introduction: Neoplasms of the duodenum account for a fraction of overall gastrointestinal tumors. Even when a lesion is found in the duodenum, it is more likely to be of secondary neoplastic origin than primary. Here we present a unique case of primary renal cell carcinoma (RCC) diagnosed on EGD.
Case Description/Methods: A 55-year-old male with a history of alcohol use disorder presented to the emergency department for lightheadedness, fatigue, and 100-pound unintentional weight loss over 3 months. On exam, the patient was found to be hypotensive, tachycardic, and jaundiced. Laboratory values were pertinent for a Hemoglobin of 4.4 g/dl. After adequate resuscitation, esophagogastroduodenoscopy (EGD) was performed that showed a large partially obstructive, infiltrative, and ulcerated mass with no bleeding in the second part of the duodenum. Histology from the duodenal mass biopsy revealed clear cell carcinoma of renal origin with mucosal ulceration. An abdominal computerized tomography (CT) scan showed a heterogeneous, centrally necrotic right renal mass causing mass effect on the second and third portions of the duodenum, right hemicolon, and hepatic flexure. The scan was also suggestive of duodenal invasion by the mass. Solid pulmonary nodule biopsy was unequivocal for metastasis. The patient was discussed in tumor board and deemed to be a candidate for cytoreductive surgery with partial duodenal resection and systemic immunotherapy if metastasis was confirmed on future biopsies (Figure).
Discussion: Duodenal metastasis from RCC is very rare and poses a diagnostic challenge. The most common presentation is with upper gastrointestinal hemorrhage or obstruction, though sometimes it can present with perforation, intussusception, or obstructive jaundice. Duodenal involvement is often from direct infiltration or metastatic spread. Delay in care and large tumor size are the likely reasons for the rare presentation seen in this patient. This case highlights the importance of considering all neoplasms of extraintestinal origin when duodenal lesions are identified endoscopically.



[2542] **Figure 1.** Left: 2nd portion of duodenum. Right: CT Abdomen/Pelvis.

S2543

A Rare Complication of Percutaneous Endoscopic Gastrostomy Tube: A Case Report

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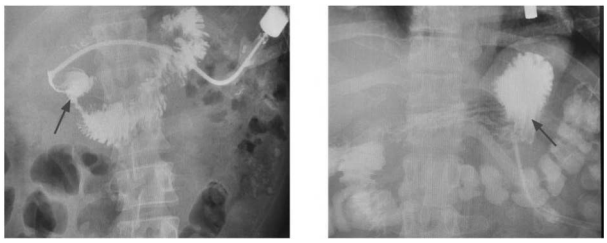
Introduction: Percutaneous endoscopic gastrostomy (PEG) tube procedure is performed globally for various indications for patients whose oral intake is not safe or unable to meet their nutritional needs. Commonly performed for long-term enteral nutrition and medication use. Though it is a safe and effective procedure, complications are not uncommon. We report a rare complication of the PEG tube as migration of internal balloon into the pylorus
Case Description/Methods: A 43-year-old man with diabetes, traumatic brain injury, stroke, and ulcerative colitis. Underwent PEG tube placement for long-term nutrition and medication use. PEG tube being used uneventfully for more than 2 years. He presented to hospital with complaints of resistance to tube feeds and abdominal pain for one day. On arrival the patient is in mild abdominal pain, otherwise vital signs were in normal range. On physical examination, he has a 20F PEG tube in the left upper quadrant area. The external bolster is almost close to the feeding port. Unable to pull the PEG tube outwards, it felt like the internal balloon stuck inside the stomach. Even under gentle pressure, the patient was complaining of pain. The imaging of the tube was performed using gastrografin instilled through the tube. Which showed the internal balloon /distal tip of the tube is inside the proximal aspect of the duodenum (Figure, left panel). It was confirmed that the PEG tube has migrated into the pylorus. At the bedside, deflated the internal balloon and the PEG tube was removed with some resistance. A new 20F PEG tube was inserted through the same track, the internal balloon inflated and the external bolster was secured properly. Post-placement of the new PEG tube, the repeat imaging using gastrografin , showed the internal balloon is within the stomach (Figure, right panel). Patient was discharged home with proper instructions to prevent and avoid complications of a similar type.
Discussion: The complications associated with PEG tubes range from simple tube clogging to serious buried bumper syndrome. The tube migration is a rare complication, which may occur due to increased peristalsis which could push the internal balloon into the pylorus. Patients with this complication are at risk of gastric outlet obstruction, even block the pancreatic, biliary ducts leading to serious complications like pancreatitis. Our case provides useful insight into the importance of recognizing the tube migration early and treating it appropriately to prevent any further complications and minimize patient suffering.



[2543] **Figure 1.** Left: Internal balloon is seen inside the proximal aspect of the duodenum, (arrow); Right: Internal balloon is seen within the stomach. (arrow).

S2544

Acute Symptomatic Hyponatremia Following Single Balloon Enteroscopy With Water Immersion: Be on the Lookout

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Introduction: The water immersion endoscopic method is a safe and often used endoscopic technique. We report a unique case of electrolyte abnormalities in a single balloon enteroscopy secondary to this procedure
Case Description/Methods: A 70-year-old female with HTN and hypothyroidism presented for single balloon enteroscopy for removal of a retained capsule. The capsule was initially performed for the of work up of melena and iron deficiency anemia after a negative upper endoscopy and colonoscopy. Physical exam and labs prior to the procedure were normal, including a sodium level of 139. The patient underwent the planned enteroscopy with water emersion with an estimated amount of 4 L of water being used. Shortly after completion of the procedure, the patient was noted to be delirious and have an altered mental

status. The patient became aphasic, began clenching her fists, and was shaking. A sodium level post-procedure was obtained and was 113. A head CT scan was performed and no central involvement was noted. The patient was managed with 3% hypertonic saline and her symptoms resolved. Over the next 2 days patient's sodium level normalized and the patient was discharged from the hospital.
Discussion: This is the first reported case of hyponatremia secondary to water immersion endoscopy. While there is an abundance of reports describing hyponatremia in urologic and gynecologic procedures those procedures generally use glycine and mannitol as their irrigate. With regards to GI procedures, hyponatremia secondary to polyethylene glycol-electrolyte preparation has infrequently been reported. Free water irrigation/immersion is generally regarded as safe during gastroenterological procedures. Our case, brings awareness to the possibility of symptomatic hyponatremia following prolonged enteroscopy with the use of large volume water irrigation/immersion. Absorption of ingested water and most solutes occur in the proximal small intestine. If a large amount of fluids are necessary then normal saline can be utilized instead of water. Limiting water to 1.5 liters and suctioning excess water can help minimize these complications. Clinicians should be aware of this serious complication when performing these procedures.

S2545

AL Amyloidosis Presenting as Isolated Gastric Lesion Found on Endoscopy in Patient With Recurrent Emesis

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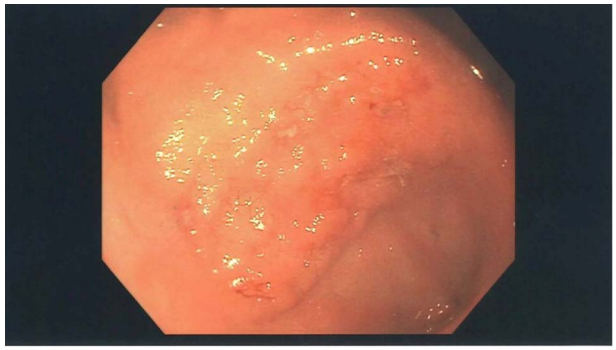
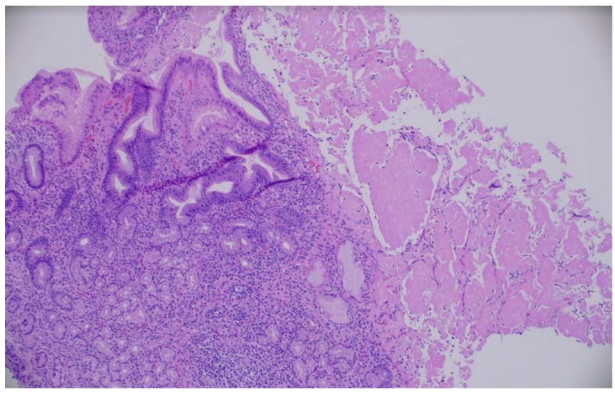
Introduction: Isolated gastric amyloid is a rare condition with a variable presentation. The following is a case of gastric amyloid presenting as a single large lesion in a patient with few nonspecific symptoms.
Case Description/Methods: A 55-year-old woman with a history of Lennox-Gastaut Syndrome underwent endoscopy for emesis workup. The procedure showed a large, friable, ulcerated lesion in the gastric antrum on the lesser curvature (Figure A). The lesion measured approximately 3 x 8 cm and was concerning for malignancy. However, biopsies of the lesion were consistent with active chronic gastritis with submucosal light chain (AL) amyloid deposition, lambda type (Figure B).
Discussion: Gastric amyloidosis is a rare condition, occurring in approximately only 3% of patients with amyloidosis. In light chain amyloidosis, it most often manifests in patients with the lambda subtype, as in the case presented here. The symptoms are vague and protean, making a clinical diagnosis difficult. Patients may complain of epigastric discomfort and may demonstrate signs of dysmotility. Ultimately, the definitive diagnosis and classification of amyloid must be made with histologic confirmation. In this case, the patient was unable to communicate her symptoms because of her intellectual disability, but did have constipation and increased emesis in the absence of other reported symptoms or findings consistent with systemic amyloidosis. Extensive workup to exclude systemic amyloidosis was unrevealing. This particular case is notable for the presentation of the disease with a single, large, friable ulcer, adding to the literature concerning the variable presentation of gastric amyloidosis on endoscopy. Considering the difficulty in clinical diagnosis and the morbidity of this disease, the authors propose a low threshold to consider pathologic examination for gastric amyloidosis in patients with nonspecific symptoms and abnormal findings on endoscopy.





[2545] **Figure 1.** A: This image was taken from endoscopy and shows a large friable, ulcerated lesion that was found in the patient's antrum on the lesser curvature. It was later found to be consistent with AL amyloidosis. B: This is a histology slide from the biopsy that was taken from the gastric ulcer, demonstrating fluffy pink amyloid tissue, found to be consistent with AL amyloidosis, lambda subtype.

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S2546

All Roads Lead to SMAD4: Menetrier's Disease in Association With a SMAD4 Mutation

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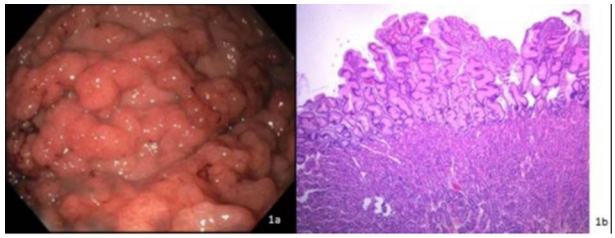
Introduction: Menetriere's Disease (MD) is a rare protein losing enteropathy. A common histological feature of MD is massive foveolar hyperplasia (expansion of mucus cells). Medical therapies include Cetuximab and Octreotide but total gastrectomy remains the mainstay as a curative option. We report a case of MD, unrelated to infection in a patient with a germline SMAD4 mutation.

Case Description/Methods: A 39-year-old male with past medical history of hypertension, and an extensive orthopedic history was referred for iron deficiency anemia. Initial workup was notable for WBC 9,700cells/uL, Hemoglobin 6.2g/dL, Hct 23%, MCV 80.1 fL, Platelets 423 k/uL, Ferritin 13.2 ng/mL, Iron 40 ug/dL, total iron binding capacity 304 ug/dL, Transferrin 243 mg/dL, and transferrin saturation 12%. Symptoms included fatigue and exertional dyspnea but no gastrointestinal symptoms such as melena, hematochezia, abdominal pain, or diarrhea. Family history was notable for Juvenile Polyposis Syndrome (JPS) and a benign gastric mass removed by a partial gastrectomy in his father. He underwent endoscopic workup for further assessment. Upper endoscopy demonstrated severe gastritis and diffusely thickened gastric folds with thick mucus secretion in the body and cardia. (Figure 1A) The antrum appeared normal. Body and cardia biopsies showed diffuse foveolar hyperplasia with cystically dilated foveolar glands and edematous, mildly inflamed lamina propria consistent with MD. (Figure 1B) Biopsies were negative for H. Pylori and lacked viral cytopathic changes. Due to his family history of JPS, he was referred for genetic testing which revealed a SMAD4 gene mutation. The patient was admitted several weeks later for worsening anemia and renal insufficiency and diagnosed with atypical Hemolytic Uremic Syndrome and unfortunately passed away from complications

Discussion: SMAD4 is an intracellular signaling mediator of the Transforming growth factor beta (TGF-β) pathway. Loss of TGF- β stimulation leads to unopposed TGF-a processes, causing features consistent with MD (decreased stomach acidity, hyperplasia of mucus cells, and gastric antralization). Only a handful of documented associations have been published between MD and SMAD4. In one study, with overlap of MD and JPS, SMAD4 was hypothesized to be the causative mutation for both. Despite lacking confirmatory genetic testing in our patient's father, it is safe to assume the autosomal dominant SMAD4 mutation is the culprit in both individuals despite the differential expression as disease.



[2546] **Figure 1.** Endoscopic and Pathologic appearance of Menetriers Disease associated with SMAD4.

S2547

An Unusual Cause of Gastric Outlet Obstruction

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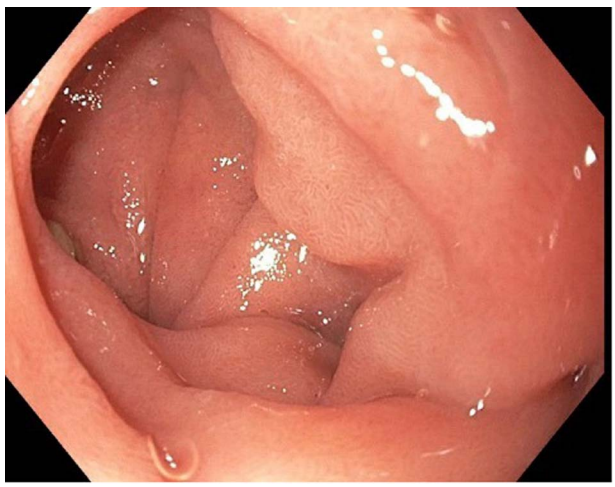
Introduction: Gastric outlet obstruction (GOO) is often an initial sign of upper gastrointestinal neoplasms causing mechanical obstruction that is characterized by abdominal pain and vomiting. Neoplasms that most often cause GOO include gastric, pancreatic, and biliary tract malignancies. We report an 82-year-old female who presented with nausea, vomiting, and right upper quadrant pain, without urinary symptoms, who was found to have a GOO due to high grade urothelial carcinoma.

Case Description/Methods: An 82-year-old female with no gastrointestinal or urinary history presented with nausea, vomiting and right upper quadrant abdominal pain with no urinary or systemic symptoms. A computer tomography (CT) showed severe right hydronephrosis related to a 3.5 x 2.2 cm ill-defined soft tissue density at the ureteropelvic junction, which extended to the lower pole calyx of the right kidney. The patient left against medical advice and returned 5 days later due to increasing symptoms. A repeat CT showed increased distention of the stomach secondary to encasement of the duodenum from the neoplasm. Urinalysis was negative for blood, casts, transitional epithelium, and squamous epithelium. A CT urogram showed severe right hydronephrosis secondary to an irregular mass that appeared to infiltrate into the surrounding fat and abutted the duodenum, inferior vena cava and right psoas muscle. An upper endoscopy (EGD) to further evaluate for gastric origin did not find mucosal disease, but it did show a severe extrinsic deformity in the third portion of the duodenum (Figure). The patient then underwent a cystoscopy with right retrograde pyelogram and right ureteral stent placement. Unfortunately, her cytology was positive for high grade urothelial carcinoma. Ultimately, the patient felt too weak to proceed with any procedures and chose to transition to hospice care.

Discussion: GOO most often can be caused by infiltrative disease, peptic ulcer disease, gastric polyps, and malignancy. Upper tract urothelial carcinoma represents 5% of urothelial cancers with few cases causing GOO reported. Although this patient did not present with hematuria of flank pain, this case highlights, patients presenting with intractable vomiting or abdominal pain should undergo imaging.



[2547] **Figure 1.** EGD showing a severe extrinsic deformity in the third portion of the duodenum.

S2548

An Unusual Case of Abdominal Hematoma Presenting After Long Quiescence Period

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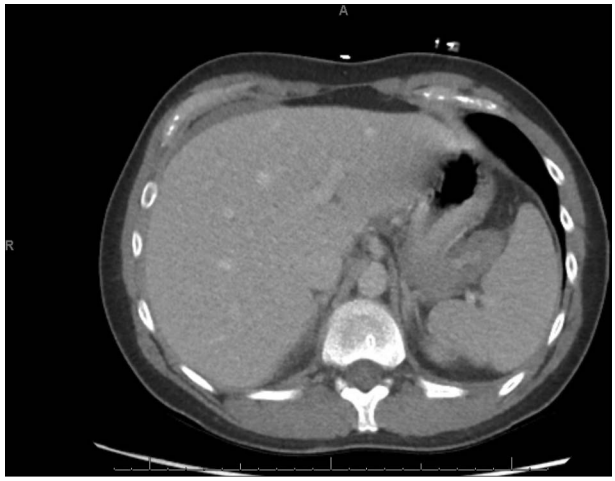
Introduction: Incidental abdominal masses are often detected during routine imaging for abdominal pain. Abdominal hematomas usually present a few days after recent trauma and are associated with peritonitis requiring surgical intervention. We report a case of symptomatic abdominal hematoma, presenting as an abdominal mass, 1 year after motor vehicle accident (MVA).

Case Description/Methods: 24-year-old female presented with sudden onset sharp epigastric and left upper quadrant (LUQ) abdominal pain, radiating to bilateral shoulders, along with decreased oral intake, nausea, and bilious vomiting. On physical exam, she was hemodynamically stable, abdomen was soft, non-distended, with epigastric and LUQ tenderness, bowel sounds normal, otherwise unremarkable exam.

Initial blood work was unremarkable. Computed tomography of abdomen and pelvis (CTAP) revealed a 5.6x 2.1x 5.4 cm mass located between stomach and spleen without associated adenopathy, suspicious for gastrointestinal stromal tumor (Figure). On EUS, the lesion appeared poorly defined, multicystic and likely originating outside the gastric wall. There was also a moderate amount of free fluid in the abdomen. A fine needle biopsy was obtained, but the sample was largely blood clot. The next day, the patient developed sharp abdominal pain with guarding, blood work revealed hemoglobin levels drop from 12.9 to 7.6 g/dl. CTAP angiography showed development of large amount of intraperitoneal free fluid, without active extravasation, and grade 1 splenic laceration, likely chronic. The non-enhancing hyperdense mass was again noted, unchanged in size and location. Laparoscopy revealed a ~6cm hematoma and evacuated 2L old blood. Postoperative diagnosis was spontaneous hemoperitoneum secondary to trauma of short gastric vessel. Pathology result showed blood, inflammation, and rare degenerated epithelial cells. Upon further interrogation, patient endorsed MVA 1 year ago but did not seek medical care due to no symptoms. Patient was monitored after surgery and upon significant improvement in her symptoms and blood work, she was discharged.

Discussion: It is rare for abdominal hematomas to be quiescent for one year and then suddenly present as peritonitis without any further inciting event. Our patient could have suffered from major morbidity, given the drastic drop in hemoglobin level, without urgent intervention. Physicians should have high clinical suspicion and investigate for possible trauma, in acute abdominal pain cases with an incidental abdominal mass on imaging.



[2548] **Figure 1.** Computed tomography of abdomen and pelvis revealing a hypo-echoic mass located medially adjacent to the spleen and laterally adjacent to the stomach. No surrounding fat stranding or lymphadenopathy noted.

GI BLEEDING

S2549 Presidential Poster Award

GI Bleeding From an Unusual Cause in an Unusual Place

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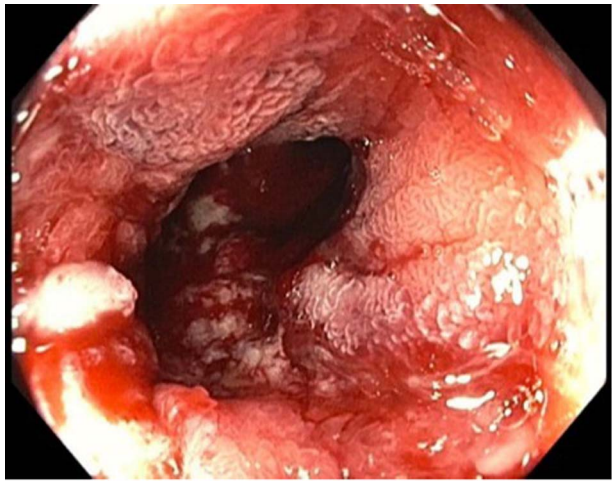
Introduction: Amyloidosis is a rare disease that involves the abnormal deposition of insoluble protein fragments in tissue resulting in impaired functionality and architecture. Deposition is usually systemic with variable involvement of different organs resulting in a wide range of clinical manifestations. Less common is the formation of a solitary mass from amyloid alone – an amyloidoma. Primary amyloidoma is defined as a solitary mass of amyloid protein with no evidence of systemic amyloidosis. Such masses have been described in a variety of locations but amyloidoma's of the duodenum are a rare entity, as evidence by the limited case reports.
Case Description/Methods: A 79-year-old White man with a medical history of low-grade marginal zone lymphoma of the duodenum (currently in remission) presented to the ED for hematemesis. He had no preceding nausea/vomiting, abdominal pain, melena, or hematochezia. He was hemodynamically stable with an initial hemoglobin of 13, which downtrended to 10.7. Other labs were normal. Findings on physical exam were unremarkable. Upper endoscopy revealed a large, circumferential, partially-obstructing mass beginning in the duodenal bulb and extending into the 2nd portion of the duodenum. The mass was very friable with active oozing on contact. The rest of the exam to the proximal jejunum was normal. Biopsies from the duodenal mass came back as extensive mucosal and submucosal amyloid deposition, ulceration/granulation tissue, and fibroinflammatory features without evidence of lymphoma. It stained positive for Congo red. Bone marrow biopsy was done during the admission with no evidence of systemic amyloidosis. His bleeding subsided and he was discharged home with follow up in Amyloidosis clinic for further management.
Discussion: In those with certain forms of amyloidosis, GI tract deposition is common and greatest in the small bowel. Symptoms vary and are based on the location of deposition. A solitary amyloid mass, an amyloidoma, is an uncommon finding. Locally produced proteins rather than circulating forms of the protein tend to be the precursor in localized amyloidosis, which is in contrast with systemic amyloidosis. Amyloidoma involvement of the duodenum is rare, as there are only a few case reports, which makes this case unique. It is also hypothesized that he has recurrence of his localized low-grade lymphoma resulting in amyloid production, which makes this case even more interesting.



[2549] **Figure 1.** Amyloidoma in duodenal bulb extending into the second portion of the duodenum.