Purpose: Endoscopic ultrasound (EUS)–guided translumenal debridement of walled-off pancreatic necrosis (WOPN) has become standard. Although holding an improved safety profile over conventional surgical techniques, mortality is 7.5% and vascular injury is a feared complication. To our knowledge, there have been two reports of pseudocysts involving the inferior vena cava (IVC). First, a pseudocyst eroded into the IVC, forming a fistula. Second, a pseudocyst-causing compression of the IVC. We present an interesting complication of WOPN after treatment with cystduodenostomy.

A 66-year-old male presented with gallstone pancreatitis complicated by a 10.6 cm x 7.1 cm x 15.1 cm WOPN and lower extremity deep vein thrombosis (DVT) status post a Meridian IVC filter (Bard Peripheral Vascular, Tempe AZ). Due to the location of the collection, a cystduodenostomy was performed. After the creation of the ostomy and lavage, 2 10 French 10 cm double pigtail Solis soft flex catheters were placed over a guide wire with fluoroscopic guidance. Twenty-four days later, he presented with fevers. A CT scan with contrast showed a WOPN, and stable thrombosis of the iliac vein and IVC with clot extension 3 cm above the IVC filter, as compared to a CT scan performed one month earlier. Interestingly, the stents extended from the duodenum via WOPN to the IVC and into the left iliac vein. Endoscopy was performed with removal of the previously placed pigtail stents with only self-limited bleeding. The cavity was entered and lavaged. Due to an unfavorable angle, necrosectomy could not be performed. IVC filter wire was seen within the proximal edge of the cyst cavity. Under fluoroscopy, the IVC filter was seen adjacent and intimately associated with the cyst cavity. Post-procedure, he remained stable without bleeding.

Communication between the IVC and WOPN are rare. Retrievable IVC filters are reported to penetrate through the IVC wall at a rate of 25% and find their way into many different arteries and the duodenum. Only 10% of these erosions cause clinically significant symptoms. It is unclear if the WOPN eroded into the IVC or if the erosion was a result of endoscopic treatment. During the initial endoscopy, the guide wire must have found its way to the connection with the IVC and down into the iliac veins. Fluoroscopy suggested placement in the lower extension of the fluid collection, although the endoscopist noted that the pigtail catheters didn’t curl. Despite placement of the stent into the IVC, bleeding was self-limiting. This is likely due to the chronicity of thrombosis and extensive collateralization. During necrosectomy, the endoscopist should be cognizant of connections that can form between WOPN and IVC.

Methods: N/A
Results: N/A
Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Oral or Poster
ACG Research Grant Support: No
Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: No
FDA Approval: No
Designed Study: Investigator
Abstract Author: Investigator

AUTH DESIGN: ACG Membership Status *font color="red">*</font>:
Jessica Abbott : ACG Non-Member
Amy Welch : ACG Non-Member
Hiba Beshir : ACG Non-Member
Matt Moyer : ACG Non-Member
Andrew Tinsley : ACG Non-Member
Frank Lynch : ACG Non-Member
Abraham Mathew : ACG Non-Member
(No Image Selected)
(no table selected)

**AVERAGE SCORE:** 3.5

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**
Somashekar Krishna: [No Comments]
Julia LeBlanc: [No Comments]
Girish Mishra: [No Comments]
Rayburn Rego: [No Comments]
Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma: A Rare Cause of Recurrent Acute Pancreatitis

Purpose: Background: Pancreatic lymphoproliferative disorders are rare, comprising only 0.5% of pancreatic tumors. These tumors can represent primary pancreatic hematologic malignancy or secondary lesions spreading from primary hematological malignancies or local lymph nodes. Recurrent acute pancreatitis is an uncommon presentation of these diseases.

Case report: We report a 69-year-old female with history of chronic lymphocytic leukemia (CLL)/small lymphocytic lymphoma with breast involvement, who presented with one-day history of acute abdominal pain associated with nausea and vomiting. The patient had experienced multiple episodes of acute pancreatitis in the past without clear etiology. On examination, she had mild epigastric tenderness without organomegaly. Laboratory data showed lipase of 849 unit/L, amylase of 126 unit/L, hematocrit of 36.8, white blood cells count of 20,000 with 76% lymphocytes and moderate amount of smudge cells. Abdominal ultrasound was performed with limited results due to overlying bowel gas. Abdominal computerized tomography revealed mild splenomegaly with no intraabdominal masses or lymphadenopathy. Endoscopic ultrasonography (EUS) discovered multiple masses in the body/tail junction of the pancreas with the largest size of two centimeters. No stones or ductal filling defects were detected. EUS-guided fine-needle aspiration of the largest pancreatic mass was performed, which revealed a population of exclusive small lymphocytic cells likely small lymphocytic lymphoma. Given her history of CLL, the diagnosis of secondary CLL of the pancreas was rendered.

Conclusion: Even though recurrent acute pancreatitis is an extremely rare presentation of secondary pancreatic lymphoproliferative lesions, physicians should be aware of this condition as a cause of recurrent pancreatitis, especially in patients with known history of CLL/SLL. The diagnosis of these disorders requires pathologic confirmation to distinguish lymphoma from other tumors or autoimmune processes.
AVERAGE SCORE: 4.5
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Somashekar Krishna: [No Comments]
Julia LeBlanc: [No Comments]
Girish Mishra: [No Comments]
Rayburn Rego: [No Comments]
ABSTRACT BODY:

Purpose: Pancreaticopericardial fistula is an extremely rare complication of chronic pancreatitis, and is virtually unheard of in the setting of acute pancreatitis. A 67-year-old male presented with acute necrotizing pancreatitis complicated by pancreatic pseudocyst with a cystoduodenal fistula and pancreaticopericardial fistula. On presentation, the patient had signs of tachypnea, tachycardia, hypotension and cyanosis. Initially, an emergent pericardiocentesis was performed for cardiac tamponade with eventual placement of a pericardial window as a result of persistent reaccumulation of fluid. Computed tomography (CT) demonstrated a gas containing pericardial fluid collection extending into the anterior upper abdomen and ill-defined fluid collections within the pancreatic head and neck, representing pancreatic necrosis with probable superimposed infection. Analysis of pericardial fluid showed elevated levels of lipase at 24,000 u/L. Surgical exploration of the subxiphoid window revealed a pancreatic pericardial cutaneous fistula and an infected pericardial window. The patient ultimately passed away from septic shock. We present this rare complication of acute pancreatitis and review the relevant literature.

Methods: N/A

Results: N/A

Conclusion: N/A
AVERAGE SCORE: 3.5
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Somashekar Krishna: [No Comments]
Julia LeBlanc: [No Comments]
Girish Mishra: [No Comments]
Rayburn Rego: [No Comments]
ABSTRACT BODY:
Purpose: A 22-year-old, gravid three, para two at 36 weeks of gestation presented with a 1-month history of right upper quadrant pain and jaundice. Past medical history notable for choledocholithiasis and cholecystectomy. No fever, weight loss, or night sweats. No smoking, illicit drug use, or alcohol intake. Exam revealed scleral icterus and right upper quadrant tenderness. Vitals were stable. Labs: leukocytosis, microcytic anemia, mild transaminitis, and obstructive jaundice. Autoimmune, viral hepatitis panels, and HIV were negative. She delivered a healthy baby. CT chest and abdomen showed extensive systemic lymphadenopathy. MRCP and ERCP showed irregularities and dilatation of the intra- and extra-hepatic bile ducts with common bile duct stricture. Biliary stent failed to resolve cholestasis. Liver biopsy therefore done, showed centrilobular cholestasis, portal edema, and necrosis with rare granulomas and eosinophils. Blood cultures and lymph node biopsies were positive for numerous yeast form Cryptococcus neoformans. Serum cryptococcal antigen titers markedly elevated at 1:4096. CSF analysis and culture was negative. Following antifungal therapy, follow-up ERCP showed free flow of bile and patient’s LFT’s and lymphadenopathy improved. Cryptococcus is an opportunistic fungus affecting immune-compromised patients with an affinity to the CNS, skin, and lungs. We present an extremely rare case of disseminated cryptococcemia involving the biliary tree in an immunocompetent patient. Treatment for disseminated disease in pregnancy is induction with amphotericin or LFAmB with or without flucytosine for 2-4 weeks, followed by fluconazole for consolidation and maintenance, started after delivery. Prompt identification and treatment is important to prevent bad obstetric outcomes and mortality in this group.

Methods: N/A
Results: N/A
Conclusion: N/A

ERCP
Lymph node biopsy

**IMAGE CAPTION:** ERCP Lymph node biopsy

(no table selected)

**AVERAGE SCORE:** 3

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**

Somashekar Krishna: [No Comments]
Julia LeBlanc: [No Comments]
Girish Mishra: [No Comments]
Rayburn Rego: [No Comments]
Purpose: Breast cancer metastases to the biliary system are rare and account for less than 0.5% of breast cancer metastases. Breast cancer as a secondary tumor often consists of infiltrating pleomorphic cells without gland differentiation and thus may be misdiagnosed if clinical suspicion is low. Obtaining the correct diagnosis is important as biliary decompression combined with hormonal or chemoradiation therapy can prolong survival and improve quality of life. We describe a case series of five patients with biliary metastases from breast cancer to increase awareness of this condition.

Case 1: A 56-year-old female with metastatic breast cancer presented with post-prandial coughing. Cholescintigraphy appeared consistent with acute cholecystitis. The patient underwent cholecystectomy which revealed an edematous and thickened gallbladder, positive for metastatic breast cancer. Her post-operative course was complicated by a bile leak.

Case 2: A 62-year-old female with history of remote breast cancer presented with abdominal bloating. Ultrasound showed cholelithiasis and she underwent planned cholecystectomy, which was aborted due to dense adhesions surround the gallbladder and proximal duodenum. The patient later developed cystic duct obstruction from the adhesions, with biopsy consistent with metastatic breast cancer.

Case 3: A 66-year-old female without history of breast cancer presented with post-prandial chest pain. Ultrasound showed cholelithiasis and extrahepatic ductal dilatation. The patient underwent cholecystectomy complicated by adhesions with pathology significant for breast signet ring carcinoma.

Case 4: A 67-year-old female with history of remote breast cancer was found to have a porta hepatis mass incidentally on imaging. Biopsy of the mass was initially diagnosed as cholangiocarcinoma and she began treatment with erlotinib and bevacizumab. However, her biopsy was later restained and found to be estrogen receptor positive, consistent with breast cancer metastasis. Her chemotherapy was changed to letrozole and her condition stabilized.

Case 5: A 47-year-old female with metastatic breast cancer presented with jaundice. Computed tomography showed a pancreatic mass with extrahepatic biliary ductal dilatation. Endoscopic retrograde cholangiopancreatography revealed a malignant pancreatic duct stricture and obstruction of the distal extrahepatic bile duct due to infiltrating tumor. A pancreatic and biliary stent were placed and her jaundice resolved.

This case series highlights the importance of prompt diagnosis of biliary metastases from breast cancer in order to avoid unnecessary surgical procedures and initiate appropriate targeted therapy.

Methods: N/A
Results: N/A
Conclusion: N/A

AUTH DESIG: ACG Membership Status <font color="red">*</font>:
Amber Tierney : ACG Non-Member
Elizabeth Brunt : ACG Non-Member
Christopher Anderson: ACG Non-Member
Faris Murad: ACG Member
(No Image Selected)
(no table selected)
AVERAGE SCORE: 4
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Somashekar Krishna: [No Comments]
Julia LeBlanc: [No Comments]
Girish Mishra: [No Comments]
Rayburn Rego: [No Comments]
Purpose: A 56-year-old African-American man presented with a 1-week history of fatigue, nausea and vomiting, scleral icterus, light stools, and dark urine. He denied abdominal pain, fever, chills, or recent weight loss. Past medical history was significant for hypertension, asthma, and questionable lupus. He did not use alcohol, tobacco, or drugs, and had no recent travel events. His physical exam was relatively unremarkable aside from icterus. His white blood cell count was $51,000/mm^3$, with 82% eosinophils. Liver function tests were significant for an albumin of 2.4g/dL, total protein 8.7 g/dL, total bilirubin 15.3mg/dL, aspartate aminotransferase 248 IU/L, alanine aminotransferase 284 IU/L, alkaline phosphatase 845 IU/L, and lipase 322 IU/L. His INR was 1.35. CT of the abdomen showed a 2.4 cm x 1.5 cm enhancing lesion in the posterior segment of right hepatic lobe. Magnetic resonance cholangiopancreatography had non-visualization of a 1-cm segment of anterior branch of the right hepatic duct with mild dilation. A liver biopsy revealed marked portal mixed inflammation with numerous eosinophils, bile duct proliferation, and edematous fibrous stoma consistent with an inflammatory process and bile duct obstruction. No malignancy was seen. Endoscopic retrograde cholangiopancreatography revealed intra-hepatic duct beading with pruning, consistent with primary sclerosing cholangitis (PSC) or autoimmune cholangiopathy, with no extra-hepatic duct filling defects. Common bile duct brushings were negative for malignancy. A broad differential of infectious, allergic, and auto-immune causes were ruled out. Endoscopy did not reveal a GI malignancy. Bone marrow biopsy revealed hypercellular (~70%) marrow with marked eosinophilia (~36% of marrow cellularity), but no evidence of neoplastic causes. The patient remained stable throughout his hospitalization. He was discharged from the hospital with an indeterminate origin of hypereosinophilia. He was started on 60 mg oral prednisone daily, and had normalization of his symptoms and laboratory values within 2 months. This case illustrates the rare clinical entity of hypereosinophilia causing eosinophilic cholangiopathy. Clinical features were suggestive of a variety of disease processes, including primary sclerosing cholangitis (PSC), idiopathic hypereosinophilia syndrome (HES), and auto-immune cholangiopathy. Based upon literature review and further workup, this case likely represents a rare cholestatic manifestation of HES caused by eosinophilic infiltration of the biliary system. Treatment with steroids was both diagnostic and therapeutic.

Methods: N/A

Conclusion: N/A

AUTH DESC: ACG Membership Status <font color="red">^</font>:
John Wysocki : ACG Member
Martin White : ACG Non-Member
Luis Balart : ACG Member
(No Image Selected)

AVERAGE SCORE: 3.75
Pancreatic Abscess: An Unusual Presentation of Pancreatic Tail Cancer

Mukul Bhattarai
Geisinger Medical Center, United States

Purpose: Background: Pancreatic tail malignancies are rare. They have nonspecific clinical features which include weight loss, indistinct abdominal pain, back pain, etc. On the other hand, pancreatic abscesses usually occur in pseudocysts or pancreatic necrosis occurring after pancreatitis. We present a rare case of pancreatic abscess as an unusual manifestation of pancreatic tail carcinoma.

Case description: A 50-year-old man initially presented to an outside facility with nausea, vomiting and fever for one week, and epigastric pain for one month. He was febrile (102F) and tachycardic on exam. The lab showed leukocytosis of 21K. A CT scan of the abdomen revealed multiple lesions in the liver and pancreas, suggestive of abscesses. He underwent abscess drainage from pancreatic tail via interventional radiological approach, but CT-guided catheter drainage of the liver abscess was unsuccessful. Abscess fluid grew bacteroides and E. coli. He was then transferred to our tertiary care center for the management of pancreatic abscess causing sepsis. Another CT abdomen showed multiple irregular lesions in the liver and a mass in the pancreatic tail extending to the splenic flexure and transverse colon (image) which was present despite drainage. His CA19.9 was elevated over 19,000. He underwent endoscopic ultrasound and FNA of the liver and pancreatic tail lesions. Pathology confirmed pancreatic ductal adenocarcinoma with mucinous differentiation. He also had a colonoscopy, which did not show colonic tumor, but showed partial narrowing of transverse colon. The diagnosis of metastatic pancreatic adenocarcinoma was made, and decided for palliation.

Conclusion: Pancreatic tail cancer remains difficult and challenging to diagnose, despite the advances in technology. In our case, the pancreatic tail cancer extended to the transverse colon, which probably acted as a nidus for migration of intestinal bacterial flora to form pancreatic abscess. Clinicians should have a high index of suspicion of pancreatic cancer in a patient who presents with features of sepsis due to pancreatic abscess.

Methods: N/A
Results: N/A
Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Oral or Poster
ACG Research Grant Support: No
Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: No
FDA Approval: No
Designed Study: Investigator
Abstract Author: Investigator

AUTH DESIG: ACG Membership Status <font color="red">*</font>:
Mukul Bhattarai : ACG Non-Member
Pardeep Bansal : ACG Non-Member
David Diehl : ACG Non-Member

CT scan abdomen showing pancreatic tail mass invading to colon and spleen, also shown liver lesions.

IMAGE CAPTION: CT scan abdomen showing pancreatic tail mass invading to colon and spleen, also shown liver lesions.
AVERAGE SCORE: 4.5
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Somashekar Krishna: [No Comments]
Julia LeBlanc: [No Comments]
Girish Mishra: [No Comments]
Rayburn Rego: [No Comments]
The Importance of Monitoring Biliary Stents - A Rare Case of Streptococcal Anginosus Liver Abscesses Due to Stent-Related Biliary Obstruction

Taruna Bhatia

The Brooklyn Hospital Center

Taruna Bhatia : ACG Member
Jiten Kothadia : ACG Non-Member
Kinesh Changela : ACG Member
Mahesh Krishnaiah : ACG Non-Member
Sury Anand : ACG Non-Member

AVERAGE SCORE: 5
ABSTRACT BODY:
Purpose: Locally advanced mucosa associated lymphoid tissue (MALT) causing obstructive jaundice due to involvement of the common bile duct (CBD) is a particularly rare condition. In the literature, there are only 24 case reports of primary CBD lymphoma. To our knowledge, there are no case reports of recurrent locally advanced MALT presenting as biliary obstruction and diagnosed with single-operator cholangioscopy (Spyglass™, Boston-Scientific, USA). A 67-year-old male with a medical history of Crohn’s disease, duodenal MALT treated with chemotherapy, and prostate and bladder cancers, was admitted to the hospital with new onset jaundice. Liver tests showed a total bilirubin 25.6, direct bilirubin 20.5, alkaline phosphatase 414, AST 103, and ALT 9. MRI of the abdomen showed moderate-to-severe intra- and extra-hepatic biliary dilation and an obstructing mass at the level of the mid-to-distal common bile duct. The mass appeared to be encasing the common bile duct. ERCP was performed. Cholangiogram revealed a mid CBD stricture with a round filling defect causing obstruction and proximal biliary dilatation. For better assessment of the stricture and the filling defect, SpyGlass™ was introduced, revealing a mid-bile duct round, nodular mass with associated luminal reduction, ulceration and increased vascularity. SpyBite™ biopsies were obtained, and a fully-covered metal biliary stent placed with excellent drainage. SpyBite™ biopsies revealed lymphoid proliferation infiltrating the mucosa with immunohistochemistry stains compatible with MALT. The biliary obstruction with secondary jaundice resolved after the placement of the metal stent, and the patient is currently receiving chemo radiation.

Lymphoma involving the bile duct is rare, and it is commonly a manifestation of advanced disease. Biliary obstruction caused by lymphoma occurs in only 1-2% of all malignant strictures. Obstructive jaundice, weight loss, abdominal pain and fever are the most common symptoms upon presentation. At the time of diagnosis, low grade MALT lymphomas are usually localized and curable with local therapy. Lymphoma involving the bile duct is very difficult to diagnose preoperatively. As exemplified by our case, single-operator cholangioscopy can be used to diagnose biliary lymphoma at the same time of therapeutic ERCP.

Methods: N/A
Results: N/A
Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Poster Only
ACG Research Grant Support: No
Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: Yes
Extra Info: : Dr. Isaac Raijman, Boston Scientific, speaker
FDA Approval: No
Designed Study: Investigator
Abstract Author: Investigator

AUTH DESIG: ACG Membership Status <font color="red">^</font>: Mauricio Torrealba : ACG Non-Member
Manuel Berzosa : ACG Member
Isaac Raijman : ACG Member
(No Image Selected)
(no table selected)

AVERAGE SCORE: 4
REVIEWER FLAGS: (none)
Somashekar Krishna: An EUS guided FNA would have been easier. Prior studies have shown high sensitivity with bile duct wall thickness > 3mm and in this case there was a mass encasing the bile duct.

Julia LeBlanc: [No Comments]

Girish Mishra: [No Comments]

Rayburn Rego: [No Comments]
Purpose: Introduction: Autoimmune pancreatitis (AIP) is a pancreatic manifestation of IgG4-related sclerosing disease. In type 1 AIP, extrapancreatic organs may be involved synchronously or metachronously. One hallmark of type 1 AIP is elevated serum IgG4 level. We report a patient presenting with pancreatitis found to have multiorgan involvement with IgG4-related disease in the setting of normal serum IgG4.

Case: A 59-year-old male was seen in the gastroenterology clinic for complaint of abdominal pain for 4-5 months, worse with meals, associated with nausea, night sweats, and 20-pound weight loss in 3 months. He denied vomiting, diarrhea, hematemesis, melena, hematochezia. He quit smoking 3 years ago, alcohol 10 years ago. Past history: skin vasculitis treated with oral steroids 3 years ago. Two CT scan abdomen/pelvis in the last 4 months were unremarkable. Physical exam: tenderness in epigastrium, right upper quadrant. Laboratory value: lipase 1,322, amylase 384, BUN/creat 25/1.7, HB 12.2, alk phos 298, ESR >140, C-reactive protein 87.3, serum triglyceride 151. The patient was not on medication known to cause pancreatitis. He was treated with IV fluids, bowel rest, pain medication. MRI abdomen: diffuse pancreatic body enlargement, bilateral renal enlargement and enhancement. Further work up revealed ANA titer 1:80, positive rheumatoid factor, rest of autoimmune panel was negative. Total IgG 3359, IgM 79, IgA 183, IgE 40. IgG subclass levels were: IgG1 1,420, IgG2 953, IgG3 182, IgG4 40. At this point, considering multiorgan involvement with elevated total IgG, a kidney biopsy was obtained to confirm IgG4-related disease. Biopsy revealed lymphoplasmacytic infiltrate involving tubules with plasma cell staining for IgG4. Patient was started on oral prednisone with symptomatic improvement.

Discussion: The prevalence of type 1 AIP is 2-11% in patients with chronic pancreatitis. International consensus diagnostic criteria for AIP involves five features: imaging of pancreatic parenchyma and duct, serology, other organ involvement, histology of pancreas, response to steroid therapy. The number of IgG4+ plasma cells is more sensitive and specific than serum IgG4. Not all patients with type I AIP exhibit elevated serum IgG4 levels as demonstrated in our patient.

Methods: N/A

Results: N/A

Conclusion: N/A
MRI: abnormal foci of ill defined signal and enhancement in both kidneys, and pancreas.

**IMAGE CAPTION:** MRI: abnormal foci of ill defined signal and enhancement in both kidneys, and pancreas.

(no table selected)

**AVERAGE SCORE:** 3.25

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**
Somashekar Krishna: [No Comments]
Julia LeBlanc: [No Comments]
Girish Mishra: [No Comments]
Rayburn Rego: [No Comments]
Purpose: Introduction: Pancreatic cysts are a heterogeneous group of lesions that may be benign or malignant. It is accepted that true cysts occur as a result of developmental anomalies related to the sequestration of primitive pancreatic ducts.

Case presentation: A male patient, 57-years old, with previous history of hypertension and cerebrovascular disease (stroke and occlusion of the central retinal vein in 2005) was submitted to abdominal imaging for study of urinary complaints. The imaging study (CT abdominal later complemented by magnetic resonance image) revealed multiple cystic pancreatic formations with associated calcifications without wirsung dilatation or solid nodular lesions suggestive of malignancy. He also had multiple renal cysts and an unilocular cystic lesion suggestive of mesenteric cystic lymphangioma. These lesions were not previously known, neither the patient had symptoms suggestive of pancreatic disease. He was recently diagnosed with acute ischemic stroke in the left half of the medulla oblongata secondary to dissection of an aneurysm of the left vertebral artery (Wallenberg syndrome). There were multiple irregularities in the caliber of the branches of the circle of Willis with dilations and stenosis, setting a vascular pattern of vasculitic type. However, immunological study was negative, with no evidence of retinal abnormalities, including vasculitis.

Discussion: Pancreatic polycystic disease is a rare condition, usually asymptomatic, although it may present with nonspecific abdominal pain, vomiting, jaundice or pancreatitis. It may occur singly or in association with renal cysts, liver, central nervous system or retinal abnormalities. Bleeding, infection, rupture or obstruction of the cysts may develop, and treatment includes monitoring, drainage or resection.

Conclusion: We present a patient with dysontogenetic pancreatic cysts and no evidence of cystic lesions of the central nervous system. It is questionable whether this patient will have involvement of the central nervous system in the future.

**Methods:** N/A

**Results:** N/A

**Conclusion:** N/A

**CURRENT CATEGORY:** G. Clinical Vignettes/Case Reports

**CURRENT SUB-CATEGORY:** C. Pancreatic/Biliary

**PRESENTATION TYPE:** Poster Only

**ACG Research Grant Support:** No

**Supported by Industry Grant:** No

**Commercial Products or Services:** No

**Initiated Research:** Investigator

**Financial Relationships:** Not Applicable

**FDA Approval:** No

**Designed Study:** Investigator

**Abstract Author:** Investigator

**AUTH DESIG: ACG Membership Status <font color="red">*</font>/</font>:**

Eduardo Rodrigues-Pinto : ACG Non-Member
Pedro Pereira : ACG Non-Member
Guilherme Macedo : ACG Member

**IMAGE CAPTION:**

(no table selected)
AVERAGE SCORE: 4.25
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Somashekar Krishna: [No Comments]
Julia LeBlanc: [No Comments]
Girish Mishra: [No Comments]
Rayburn Rego: [No Comments]
Purpose: Introduction: Post-ERCP pancreatitis (PEP) is the most common complication of endoscopic retrograde cholangiopancreatography (ERCP), occurring in approximately 3.5% of cases. PEP with phlegmon is rarely observed in current clinical practice. We herein describe a case of severe PEP complicated by phlegmon formation presenting as acute pyelonephritis.

Case Presentation: A 31-year-old female with history of cholelithiasis and non-obstructive left kidney stone presented with acute left lower abdominal pain associated with fever, nausea, and vomiting. The patient underwent an uneventful elective ERCP with negative findings 1 day prior to this visit. On examination, she had SIRS with significant CVA tenderness. Labs showed a leukocytosis of 17,600, serum lipase of 1,686 unit/L, and contaminated urine. She developed hypotension shortly after admission. An abdominal CT demonstrated acute pancreatitis with phlegmonous changes and gas in the retroperitoneum. Abscessed fluid was also identified to extend inferiorly into the left pararenal spaces. Exploratory laparotomy was emergently performed and revealed pancreatic tail necrosis complicated by an early abscess formation. The patient went through the multiple sessions of debridement and drainage during 2 months of her hospitalization. Subsequently, the patient was safely discharged home.

Discussion: PEP with phlegmon formation is an extremely rare complication. In this case, extension of abscessed fluid to the left pararenal space perplexingly contributed to the typical manifestation of acute pyelonephritis. Early imaging is definitely crucial for appropriate, timely management. Hence, it is imperative for internists to be aware of common complications of ERCP, which could be presented in an uncommon fashion.

Methods: N/A
Results: N/A
Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Oral or Poster
ACG Research Grant Support: No
Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: No
FDA Approval: No
Designed Study: Investigator
Abstract Author: Investigator

AUTH DESIGN: ACG Membership Status <font color="red">*</font>:
Krittapoom Akrawinthawong : ACG Non-Member
Pornchai Leelasinjaroen : ACG Non-Member
Wuttiporn Manatsathit : ACG Non-Member

(Average Score: 3.5)
REVIEWS: (none)
REVIEWS RECOMMENDATION CODE DESCRIPTION: None
REVIEWS COMMENTS:
Purpose: A 55-year-old male with chronic HCV and recurrent pancreatitis previously attributed to remote alcohol use, was referred for endoscopic management of gallstone pancreatitis. He originally presented with acute epigastric pain and vomiting. Acute pancreatitis was diagnosed based on symptoms and presence of elevated amylase (300 U/L) and lipase (2800 U/L). Gallstone pancreatitis with choledocholithiasis was then suggested by direct hyperbilirubinemia (2-11.3 mg/dL). CT imaging suggested acute pancreatitis with intrahepatic and common bile duct (CBD) dilatation in the absence of pancreatic duct (PD) dilatation. Endoscopic retrograde cholangiopancreatography (ERCP) was attempted at the outside hospital but unsuccessful in cannulation, so the patient was transferred to our center. The retrograde cholangiogram demonstrated filling defects in the distal CBD consistent with choledocholithiasis. Coincidentally, the PD also opacified and is seen branching off a small common channel, consistent with an anomalous pancreaticobiliary junction (APBJ). Sphincterotomy with balloon sweep successfully extracted the stone. The patient’s clinical symptoms improved, and he was referred to surgery for prophylactic cholecystectomy. APBJ is a rare congenital anomaly defined as a junction of the pancreatic and bile ducts outside the duodenal wall, forming an unusually long common channel greater than 1.5 cm with an incidence of 0.03%. APBJs can stand alone without biliary ductal dilatation. More commonly, however, they are associated with choledochal cysts (particularly Type 1 and IVa). Over 90% of patients with Type I and IVa choledochocysts are known to have APBJ. Gallbladder cancer is highly associated with APBJ with a reported 8-24% incidence and is more frequently seen in cases without biliary dilatation (incidence 40-90%) compared with those with APBJ and biliary dilatation (~10%). In addition, APBJ with choledochal cysts carries high risks of cholangiocarcinoma (~50%). While APBJ is a rare cause of pancreatitis, 18-23% of adults have been reported to have acute or recurrent pancreatitis and up to 68% of children. Finally, APBJ is associated with pancreatic cancer (3%). The underlying etiology is thought to arise from altered pancreaticobiliary reflux (either direction) as a result of the distorted anatomy. APBJ is usually discovered incidentally and initial treatment should focus on the primary condition. It is noteworthy that despite the inevitable pancreaticogram, these patients are not at increased risk for post-ERCP pancreatitis. Ultimately, all patients with APBJ should be considered for prophylactic cholecystectomy, while those with associated choledochal cysts should be evaluated for cyst excision.

Methods: NA
Results: NA
Conclusion: N/A
Devi Rampertab: Some minor grammatical errors (verb tense incorrect in some places).

Key: Their take home point should have been more clear in the conclusion -- ie: Although history of alcohol abuse was thought to be the culprit for this patient's recurrent pancreatitis, it was actually the APBJ that was incidentally discovered on imaging that is the likely reason.

Selvi Thirumurthi: [No Comments]
Renu Umashanker: [No Comments]
James Vecchio: [No Comments]
Purpose: Introduction: Benign neoplasms of the duodenum are uncommon and only about 0.3-4.6% can be found via endoscopy. We present a rare case of Brunner’s gland hyperplasia arising from the duodenal bulb and causing biliary obstruction as a result of its intermittent mass effect on the ampulla of Vater. This is only the fourth case of Brunner’s gland hyperplasia associated with biliary obstruction that has been reported.

Case: A 69-year-old man presented with several episodes of right upper quadrant abdominal pain, diarrhea, and dark-colored urine over a 3-month period. Physical examination was unremarkable and laboratory investigation revealed elevated liver enzymes as follows: alanine aminotransferase 293 IU/L, aspartate aminotransferase 95 IU/L, alkaline phosphatase 225 IU/L, total bilirubin 2.3 mg/dL, and direct bilirubin 0.79 mg/dL. Hemoglobin and white blood cell count were marginally reduced and viral hepatitis serology, smooth muscle antibody, antinuclear antibody, and mitochondrial antibody were negative. Magnetic resonance imaging (MRI) of the abdomen identified a 3.5 x 1.5 cm ovoid-enhancing intraluminal mass in the second portion of the duodenum with no evidence of intra- or extrahepatic biliary duct dilatation. On upper endoscopy, a large pedunculated polyp measuring approximately 3 x 3 cm was noted in the duodenal bulb with abnormal overlying mucosa and prolapsing into the second portion of the duodenum. The homogeneous mass appeared to arise from the submucosal layer on endoscopic ultrasound, without further invasion into the mucosa. It had a thick stalk, which measured 1.5 cm in diameter. Endoscopic polypectomy was successfully performed and histopathologic examination confirmed a diagnosis of Brunner’s gland hyperplasia with no evidence of malignancy. At a 1-month follow-up visit, the patient’s symptoms had completely resolved and liver enzymes had returned to normal levels.

Discussion: Brunner’s gland hyperplasia is a rare benign condition and is usually of no clinical consequence. However, an unusual presentation with biliary obstruction can occur and poses a diagnostic challenge in the differential workup of obstructive jaundice. Resolution of this obstruction can be achieved via endoscopy or surgery depending on features of the polyp.
Polyp prolapsing into the second part of the duodenum; gross and endoscopic sonogram.

**IMAGE CAPTION:** Polyp prolapsing into the second part of the duodenum; gross and endoscopic sonogram.

(no table selected)

**AVERAGE SCORE:** 2.75

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**

Devi Rampertab: Very well written. Not new, but should still be included.

Selvi Thirumurthi: [No Comments]

Renu Umashanker: [No Comments]

James Vecchio: [No Comments]
TITLE: Single-operator Peroral Cholangioscopy (SpyGlass™) for Extraction of a Cystic Duct Stone in the Setting of Mirizzi’s Syndrome Post-remote Cholecystectomy

PRESENTER: Paul Benson

PRESENTER (INSTITUTION ONLY): Wake Forest School of Medicine

PRESENTER (COUNTRY ONLY): United States

ABSTRACT BODY:

Purpose: Introduction: Cystic duct and gallbladder neck stones are seen as a cause of biliary obstruction due to extrahepatic bile duct compression: “Mirizzi’s Syndrome.” Management of symptomatic cystic duct stones after cholecystectomy can be challenging often requiring surgical extraction. The SpyGlass™ Direct Visualization System provides an attractive option for endoscopic management of cystic duct stones.

Summary of Case: A 27-year-old female with history of remote cholecystectomy for symptomatic cholelithiasis presented with epigastric pain radiating to the right upper quadrant and back. Laboratory evaluation was consistent with cholestasis. MRCP showed a 9-mm stone at the confluence of the cystic and common hepatic ducts resulting in biliary and cystic ductal dilatation with surrounding inflammation (Figure 1).

Description of Intervention: ERCP was performed with biliary sphincterotomy and biliary stent placement after failed cannulation of the cystic duct. On repeat ERCP the cystic duct was successfully cannulated. There was a filling defect consistent with a 9-mm stone with proximal cystic duct dilatation and extravasation of contrast suggestive of a contained cystic duct leak. Following failed attempts of stone extraction using a balloon, cholangioscopy was performed using SpyGlass™. The stone was visualized and fragmented using electrohydrolitic lithotripsy (EHL; Figure 2). Balloon sweeps of the cystic duct successfully cleared the cystic duct of stone fragments.

Conclusion: Our case highlights the merits of using SpyGlass™ cholangioscopy for endoscopic removal of an obstructing cystic duct stone causing Mirizzi’s Syndrome. This non-surgical, safe, and effective modality should be considered when conventional ERCP has failed in managing complex ductular stones.

Methods: N/A

Results: N/A

Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports

CURRENT SUB-CATEGORY: C. Pancreatic/Biliary

PRESENTATION TYPE: Poster Only

ACG Research Grant Support: No

Supported by Industry Grant: No

Commercial Products or Services: No

Initiated Research: Investigator

Financial Relationships: No

FDA Approval: No

Designed Study: Investigator

Abstract Author: Investigator

AUTH DESIG: ACG Membership Status <font color="red">*</font>:

Paul Benson : ACG Member
John Evans : ACG Member
Jason Conway : ACG Member
Girish Mishra : ACG Member
Rishi Pawa : ACG Member

MRCP
SpyGlass™ Cystic Duct Stone

**IMAGE CAPTION:** MRCP SpyGlass™ Cystic Duct Stone

(no table selected)

**AVERAGE SCORE:** 4.5

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**
Devi Rampertab: well written, but definitely not novel. Many big centers are doing spyglass and this has been reported before.

Selvi Thirumurthi: [No Comments]

Renu Umashanker: [No Comments]

James Vecchio: [No Comments]
A 29-year-old man with no medical history presented to our hospital for evaluation of hematuria and was subsequently found to have abnormal liver function tests. The patient reported using intranasal ketamine daily. On evaluation, he stated that he developed increased urinary urgency, frequency, and dysuria over months. He had one episode of gross hematuria prior to presentation. There was no fever, abdominal pain, change in bowel habits, melena, or hematochezia. Physical exam was notable for a well-appearing man with a benign abdomen. There was no scleral icterus, hepatosplenomegaly, or jaundice. Liver function tests were found to be abnormal on routine blood work. Aspartate aminotransferase (AST) and alanine aminotransferase (ALT) were 75 and 100, respectively. Alkaline phosphate (ALP) was elevated at 285, but bilirubin levels were normal. Hepatitis A IgG and hepatitis B surface antibodies were positive. The remainder of the hepatitis serologies was unremarkable. A computed tomography (CT) scan was ordered and showed thickening of the urinary bladder wall. In addition, hepatomegaly and biliary ductal dilatation were seen, with the common bile duct (CBD) measuring 20 mm in diameter. An endoscopic ultrasound (EUS) was performed and revealed a CBD that was markedly enlarged to 19 mm with slight wall thickening. No intrinsic sludge or stones were noted. The liver, pancreas, gallbladder, and lymph nodes appeared normal. Both his genitourinary and hepatobiliary findings were felt to be secondary to ketamine use. He was discharged with urology and gastroenterology follow-up. Ketamine is an N-methyl-D-aspartate receptor (NMDA) antagonist that has been used for decades for induction and maintenance of anesthesia. A commonly abused street drug particularly in Asia, ketamine causes hallucinations and a dissociative experience. The drug is metabolized by the liver and secreted in bile and urine. Bladder dysfunction has been well reported in the literature as an adverse consequence of ketamine use. Its effects on the hepatobiliary system, however, are less clear and have been described in case series as ketamine-induced cholangiopathy. The exact pathophysiology is unknown. Several animal studies have postulated that ketamine may increase sphincter of Oddi tone, but this has not been demonstrated in humans. It is important for gastroenterologists to recognize this disease entity as misdiagnosis may cause unnecessary testing and procedures. Further study to determine the mechanism of disease and whether or not biliary dilatation resolves after cessation of ketamine use is needed. If changes of the biliary tree are permanent, these patients may need to be followed over time by a gastroenterologist.
AVERAGE SCORE: 4.25
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Devi Rampertab: Nothing novel here
Selvi Thirumurthi: [No Comments]
Renu Umashanker: [No Comments]
James Vecchio: [No Comments]
Purpose: A 52 year-old female with a history of morbid obesity presented with 2 days of abdominal pain, chest pain, and dyspnea. EKG and chest X-ray were unremarkable. CT PE protocol did not reveal a pulmonary embolism, but did show a large amount of hypoattenuating tissue in the epigastric area, consistent with severe lymphadenopathy. Patient was referred to our facility for further evaluation. On further questioning, patient endorsed intermittent abdominal pain for 2 years, about 1 year of early satiety, and 100-pound intentional weight loss. Physical exam was remarkable for tachycardia to the 120s, abdominal tenderness in the epigastric and right upper quadrant regions, and 1+ bilateral lower extremity pitting edema. Otherwise the patient was normotensive, anicteric, with clear lung sounds, without JVD; no lymphadenopathy was noted. Initial EKG, troponins, CBC, LFTs, lipase, and amylase were normal. Echocardiogram showed an ejection fraction of 35-40%. CT of the abdomen/pelvis was obtained and revealed diffuse lymphadenopathy including a 2.6 x 4.3 cm hypodensity near the celiac axis. This mass partially displaced an otherwise unremarkable pancreas. Gastroenterology was consulted to perform a biopsy. An EUS was performed. A large paraesophageal lymph node was biopsied. An irregular, 13 x 20 mm hypoechoic mass was identified and biopsied in the pancreatic head. Cytology of both biopsies revealed adenocarcinoma of the pancreas. Patient had a complicated hospital course that included massive thrombosis of bilateral iliac veins and IVC causing severe hypotension and acute renal failure. Patient was treated with heparin and IV fluids. Patient's hemodynamic and renal status improved and she received one dose of gemcitabine prior to discharge. We present an atypical presentation of pancreatic cancer with severe lymphadenopathy and no pancreatic lesion on cross-sectional imaging. This type of presentation can lead to a delay in diagnosis. Hypercoaguable state, associated with malignancy, can lead to severe complications. Trousseau’s syndrome is a well-recognized condition originally described as “unexpected, unusual, or migratory thrombosis.” Heparin is the treatment of choice for this condition.

Methods: N/A
Results: N/A
Conclusion: N/A

AUTH DESIG: ACG Membership Status <font color="red">^</font>: Edward Belkin : ACG Non-Member
Wahid Wassef : ACG Member
Devi Rampertab: very well written.

But not much new.

Selvi Thirumurthi: [No Comments]
Renu Umashanker: [No Comments]
James Vecchio: [No Comments]
A Case of Chronic Hepatobiliary Fascioliasis Mimicking Acute Choledocholithiasis: A Case Report and Review of Literature

Varun Takyar

University of Arizona Medical Center, United States

ABSTRACT BODY:

Purpose: Introduction: Hepatobiliary fascioliasis is a rare trematode-associated zoonotic infection. The disease is caused by Fasciola hepatica and rarely found in the United States. Here we present one such case that mimicked choledocholithiasis and a review of the literature of hepatobiliary fascioliasis cases in the United States.

Case: A 28-year-old Hispanic female presented to our hospital 1 week postpartum with a 2-day history of intermittent nausea, vomiting, and abdominal pain. She recently presented to the ER 1 month earlier with nonspecific abdominal pain and was diagnosed with symptomatic cholelithiasis. An elective cholecystectomy was scheduled post-partum. On current physical exam, she was afebrile and appeared icteric with right upper quadrant tenderness. Lab studies showed WBCs of 6.4 K/uL, AST of 117 Units/L, ALT of 182 Units/L, AP of 358 Units/L, total bilirubin of 3.7 mg/dL, and a direct bilirubin of 1.8 mg/dL. An abdominal sonogram revealed cholelithiasis and CBD dilation to 10 mm. To investigate the suspected biliary tract obstruction an ERCP was performed. The initial cholangiogram showed a CBD of 12 mm in diameter with several small filling defects. After a generous sphincterotomy, three liver flukes were extracted from the distal CBD. Repeat cholangiography revealed no filling defects. No stents were placed. Subsequent stool studies for ova and parasites and an ELISA test were sent and returned positive for Fasciola hepatica. The patient was diagnosed with chronic hepatobiliary fascioliasis. She was treated with 750 mg of triclabendazole orally for 2 days. She improved clinically and was discharged from the hospital. Repeat ova and parasite stool studies were all negative. She subsequently underwent an uncomplicated elective cholecystectomy as an outpatient and no flukes were found in the specimen. We searched PubMed and Medline for Fasciola hepatica in the United States and found 41 cases since the 1930s. Besides the 21 cases on the Hawaiian Islands, only three cases were local on mainland United States. Like our case, the rest were imported infections from endemic areas. Only four cases were described as being chronic hepatobiliary fascioliasis.

Conclusion: Fasciola hepatica is an extremely rare cause of biliary tract obstruction in the United States. It is a challenging diagnosis to make but in view of the large number of travelers and immigrants from endemic regions, a high index of suspicion should be maintained in patients with atypical presentations of choledocholithiasis. In addition, as seen in our case it can also be confused for biliary colic in pregnant women. The backbone of treatment remains clearance of bile ducts, classically with ERCP and antiparasitic medications.

Methods: N/A
Results: N/A
Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Poster Only
ACG Research Grant Support: No
Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: No
FDA Approval: Yes
Designed Study: Investigator
Abstract Author: Investigator

AUTH DESIG: ACG Membership Status:
Varun Takyar : ACG Non-Member
Bianca Afonso : ACG Member
Terence O'Keeffe : ACG Non-Member
AVERAGE SCORE: 2.5
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Devil Rampertab: very well written
not novel but very interesting
Selvi Thirumurthi: [No Comments]
Renu Umashanker: [No Comments]
James Vecchio: [No Comments]
Purpose: Case: An 80-year-old female with history of HTN, hyperlipidemia, and multiple prior TIA's, presented with complaints of weakness, abdominal discomfort, and several episodes of non-bloody, non-bilious vomiting starting while she was shoveling snow at home. She was recently switched to rivaroxaban. There were no reported episodes of prior supratherapeutic INRs, abdominal trauma, or alcohol use. Upon presentation, the patient was afebrile with stable vitals. Abdominal exam was unremarkable, as was the rest of the exam. There was a notable drop in Hb from 9.8 to 7.2 g/dL. Both amylase and lipase were normal. Non-contrast CT abdomen displayed evidence of pancreatic hemorrhage and hemoperitoneum, without clear evidence of pancreatitis. The patient was transfused with packed red blood cells and platelets. She was also given activated 1000 IU of profilnine SD (factor IX complex) for reversal of the rivaroxaban. On follow-up CT abdomen 1 month after discharge, a cystic lesion was noted in the tail of the pancreas, in close proximity to area of previous bleeding.

Discussion: Rivaroxaban is an orally available direct factor X inhibitor, recently approved by the FDA. Its primary benefit over prior forms of anticoagulation is its ability to provide convenient oral anticoagulation, without the need to monitor levels. Studies comparing this agent to older forms of anticoagulation have demonstrated increased risks for critical bleeding and need for transfusion, most commonly from the GI tract or intracranial hemorrhage. The lack of a clinically proven reversal agent has also been a cause for concern. While spontaneous bleeding when taking this medication may rarely occur, its occurrence in this patient with no history of trauma raised suspicion for underlying pathology. This suspicion was confirmed on the follow-up CT scan, which documented a pancreatic mass. This case is notable for a novel pancreatic source of major bleeding in a patient on rivaroxaban, as well as a clinically significant improvement upon administration of profilnine SD. Spontaneous pancreatic hemorrhage or hemoperitoneum while on rivaroxaban should raise suspicion for an underlying pancreatic pathology including pancreatic tumors.
Pancreatic Hemorrhage

**IMAGE CAPTION:** Pancreatic Hemorrhage

(no table selected)

**AVERAGE SCORE:** 3

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**

Devi Rampertab: [No Comments]
Selvi Thirumurthi: [No Comments]
Renu Umashanker: [No Comments]
James Vecchio: [No Comments]
Purpose: A 66-year-old male with a PMH significant for HTN, hyperlipidemia, iron deficiency anemia and BPH presented with mid-epigastric pain for two weeks. He reported worsening constipation and pain with eating during this time. There was no fever, chills, N/V and no alcohol use. Initial lab values showed amylase 104 U/L and lipase 171 U/L. Hemoglobin was 11.1 GM/dL and MCV 69.1 FL. CT of abdomen and pelvis revealed a 7.5 x 8.5-cm soft tissue mass at the level of the pancreatic head and body, worrisome for primary pancreatic neoplasm. In the liver, at least two enhancing lesions were seen. Bone scan showed tracer activity in the left sacroiliac joint, suggesting possible metastases. Additional lab values were checked, including CEA and CA 19-9, which were normal at 1.2 NG/ML and 12 U/mL, respectively. Subsequently, EGD with endoscopic ultrasound (EUS) and fine needle aspiration (FNA) revealed a large, heterogeneous, uncinate pancreatic mass. The lesion was mostly solid with some cystic areas, with suggestion of involvement of the SMA and SMV. FNA revealed neoplastic cells positive for vimentin stain, equivocal for pan-melanoma stain and negative for S100, cytokeratin AE1/AE3, CAM5.2, E-cadherin and TTF1 stains. This profile was consistent with high-grade malignant neoplasm favoring undifferentiated sarcoma. Immunohistochemistry stains showed that the tumor cells were negative for inhibin, EMA, CK-18, and synaptophysin. The decision was made at a tertiary referral cancer center to treat with initiation of gemcitabine and dicetaxel; a regimen for carcinoma with sarcomatoid features. The regimen has been well tolerated and the patient's abdominal discomfort has completely resolved.

Conclusion: Primary pancreatic sarcomas represent an exceedingly rare breed of pancreatic tumors which account for less than 0.1% of all pancreatic malignancies. According to literature, pancreatic sarcomas occur frequently in younger individuals, and the pancreatic caput is most commonly involved followed by the tail and the body. The origin of such tumors is often argued considering the rarity of the pancreas being the primary source. Clinically patients present with nonspecific complaints such as abdominal pain, nausea and vomiting. The presentation and diagnostic strategies are similar to those employed with more common pancreatic malignancies. Axial imaging complemented by EUS allowed appropriate staging and diagnosis of this lesion. EUS additionally aided in investigating the lesion's involvement with the gastric wall layers; an important consideration in light of the histology. Treatment regimens may be varied and considering the rarity of this neoplasm, consultation with tertiary referral cancer centers should be considered.

Methods: N/A
Results: N/A
Conclusion: N/A
Reza Akhtar: ACG Member
(No Image Selected)
(no table selected)
**AVERAGE SCORE:** 3.25
**REVIEWER FLAGS:** (none)
**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None
**REVIEWER COMMENTS:**
Devi Rampertab: PHENOMENAL!!!
Selvi Thirumurthi: [No Comments]
Renu Umashanker: [No Comments]
James Vecchio: [No Comments]
ABSTRACT BODY:

Purpose: Background: Patients with diabetic ketoacidosis (DKA) frequently present with abdominal pain often from metabolic acidosis, but potentially can have co-existing acute pancreatitis (AP), appendicitis, or gastrointestinal perforation. However, it is rare for acute pancreatitis to present as DKA. We report a case in a patient with no past medical history presenting with multiorgan failure and DKA in the setting of severe acute pancreatitis, which progressed into emphysematous pancreatitis. His diabetes resolved with the resolution of severe pancreatitis.

Case Report: We report a case of a 37-year-old male with no significant medical history who presented with multiorgan dysfunction syndrome, DKA, and acute pancreatitis. This patient had a prolonged hospital course with initial resolution of his acute pancreatitis; however, was later complicated by fevers, jaundice, and abdominal distension. Imaging revealed pancreatic necrosis. The patient was managed via medical therapy and underwent an ERCP for biliary decompression. Over the course of the year, his pancreatic necrosis and biliary obstruction resolved without surgical intervention. On 1-year follow-up, his diabetes also resolved.

Conclusion: We postulate that severe pancreatitis could have lead to dysfunction of beta cells, and hence decrease production of insulin, which resulted in DKA and masked coexisting AP. A high index of suspicion for acute pancreatitis should remain in patients with DKA who have severe abdominal pain, as the diagnosis of acute pancreatitis could impact the management of these patients.

Methods: N/A
Results: N/A
Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Poster Only
ACG Research Grant Support: No
Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: No
FDA Approval: No
Designed Study: Investigator
Abstract Author: Investigator

AUTH DESIG: ACG Membership Status <font color="red">*</font>
Nasir Akhtar : ACG Non-Member
Pardeep Bansal : ACG Member
David Diehl : ACG Member

IMAGE CAPTION:
(no table selected)
AVERAGE SCORE: 4.75
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Purpose: Introduction: A case of massive pleural effusion without ascitis secondary to a pancreaticopleural fistula (PPF) successfully treated with pancreaticoduodenal stenting is presented.

Case Description: A 34-year-old male presented to the emergency department with a 3-week history of dyspnea. Past medical history indicated alcohol-induced chronic pancreatitis. Physical examination was notable for diminished vesicular murmur and dullness on percussion of left lung. Chest X-ray revealed left-side massive pleural effusion, which was confirmed by pleural echography and contrast-enhanced CT of the chest. A black-colored pleural fluid was removed via chest drainage. The exudative pleural fluid had highly elevated amylase levels (>30 000 IU/L), in comparison to serum amylase (1082 IU/L). Both fluid culture and cytology were negative. Magnetic resonance cholangiopancreatography (MRCP) performed on day four revealed a new retroperitoneal pseudocyst (3.1 x 9 x 14.7 cm) communicating with the left pleural space through a 5-mm diaphragmatic fistula. No connection between the duct of Wirsung and the collection was identified. Initial treatment consisted of octreotide and gastrojejunal nutrition.

Endoscopic retrograde cholangiopancreatography (ERCP) was then performed to locate a connection with the pseudocyst. It was during the second attempt on day 20 that a connection was found with contrast extravasion to the retroperitoneal cyst. A pancreatic duct stent (7 french diameter) was inserted to cover the site of duct disruption. On day 34, MRCP revealed near complete resolution of the pseudocyst. The patient was released with enteral nutrition and octreotide without any signs of left pleural effusion re-accumulation.

Discussion: PPF are unusual and occur in 0.4-5% of patients with chronic pancreatitis. Very high amylase levels in pleural fluid support the diagnosis. MRCP is the non-invasive imaging tool of choice for visualizing anatomic relationships with peripancreatic collections. Conservative management with octreotide and parenteral nutrition for 2-3 weeks has traditionally been the first-line therapy recommended; nevertheless, a growing number of case reports suggest that successful closure of PPF with pancreatic duct stenting is feasible when duct anatomy is amenable to an endoscopic procedure. Observational data suggest that earlier invasive therapy could reduce hospital stay length when compared to the conservative strategy.

Conclusion: This case highlights the prompt recognition of PPF by a medical team and the early use of endoscopic pancreatic stenting with somatostatine analogue as a primary therapeutic option associated with rapid amelioration of patient condition.
Jean-Daniel Baillargeon : ACG Non-Member
Yannick Poulin : ACG Non-Member
(No Image Selected)
(no table selected)
**AVERAGE SCORE:** 3.75
**REVIEWER FLAGS:** (none)
**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None
**REVIEWER COMMENTS:**
Purpose: Extrahepatic sarcoidosis with granulomatous lymphnode involvement in porta hepatis is an extremely rare manifestation of sarcoidosis. So far no single case has been reported causing recurrent gastrointestinal bleeding secondary to extrahepatic sarcoidosis. This case report presents a 57-year-old woman who was diagnosed with sarcoidosis in 1998 when she was found to have uveitis and pulmonary nodules, subsequently treated with oral steroid. Eleven years later she presented to our clinic with nonspecific abdominal pain. CT abdomen showed pancreatic head mass which was thought to be malignant. She underwent exploratory laprotomy which showed soft tissue mass in porta hepatis encrouching portal vein. Biopsy showed noncaseating granulomatous lymphnode confirming sarcoidosis. Patient declined steroid therapy. One year later, she developed pruritis and obstructive jaundice. Repeat CT abdomen showed growth of porta hepatic mass. She subsequently underwent ERCP for biliary decompression, but ultimately required biliary bypass surgery. One year later, abdominal CT scan revealed that the mass had progressed and was now causing extrinsic obstruction of both portal vein and hepatic artery. Patient had subsequently developed portal hypertension which lead to recurrent gastrointestinal bleeding due to formation of jejunal varices at the site of biliary anastomosis. Initially, patient was treated conservatively with pulse dose steroid followed by maintenance high-dose steroid and mycophenolate mofetil which showed significant reduction in size of porta hepatic mass. However, she continued to have recurrent gastrointestinal bleeding and thus eventually required mesocaval shunt procedure to alleviate portal hypertension and to prevent recurrent gastrointestinal bleeding.

Methods: N/A

Results: N/A

Conclusion: N/A

AUTH DESIGN: ACG Membership Status <font color="red">^</font>

Digantkumar Paghdal : ACG Non-Member
John Rivas : ACG Member
Ronnie Pimentel : ACG Member
(No Image Selected)
(no table selected)

AVERAGE SCORE: 5

REVIEWSER FLAGS: (none)

REVIEWSER RECOMMENDATION CODE DESCRIPTION: None

REVIEWSER COMMENTS:

Devi Rampertab: Excellent description of case but no discussion.
Selvi Thirumurthi: Multiple typos/spelling errors
Renu Umashanker: [No Comments]
James Vecchio: [No Comments]
Purpose: A 42-year-old male with history of recent acute pancreatitis presented with abdominal pain and distension. Serum lipase was 7,136 unit/L. CT scan of the abdomen and MRCP showed pseudocysts in the head of the pancreas and marked ascites. Serum ascites albumin gradient was 0.6 gm/dL. Ascitic fluid amylase of 11,506 unit/L and lipase of 151,520 unit/L led to a diagnosis of pancreatic ascites. The ascites did not respond to conservative treatment: bowel rest, parenteral nutrition (TPN), diuretics, octreotide, and multiple paracentesis. Attempts to diagnose and treat a possible duct disruption with ERCP and stent placement were unsuccessful. By day 30 of admission, the patient was deconditioned and markedly hypoalbuminemic despite TPN. This made surgery a high-risk option. The patient was then referred for pancreatic irradiation. Low-dose pancreatic irradiation was approved by radiation oncology and the patient underwent CT simulation with the target volume being the entire pancreas. Radiation therapy included 550 centigray (cGy) in a single fraction with a 95% isodose line using 10 megavolt (MV) x-rays through a 3-field plan of two opposed laterals (11 x 7.6 cm) and an anterior-posterior field (10.8 x 18 cm). The mean dose to the right and left kidneys was only 110cGy and 160cGy, respectively. Paracentesis was not needed thereafter and by 6 weeks, only minimal ascites was noted on CT scan. The aim of irradiation is to effect reversible suppression of pancreatic secretion. This occurs within hours, and pancreatic function returns to normal within 1-3 weeks. The exact mechanism is unclear, but it is postulated that radiation inhibits intracellular synthesis of enzymes, inactivates enzymes already present, and decreases volume of pancreatic secretion allowing ductular leaks to close. The patient is asymptomatic on a general diet at 9-month follow-up. Repeat imaging has confirmed resolution of abdominal ascites. Low-dose pancreatic irradiation could be a treatment modality for pancreatic ascites in patients who are not surgical candidates and have failed conservative therapy. To our knowledge, the use of irradiation to treat pancreatic ascites has been described less than 10 times in the literature.

Methods: N/A

Results: N/A

Conclusion: N/A

AUTH DESIG: ACG Membership Status:

Ali Haider : ACG Non-Member
Asif Lakha : ACG Member
Sarosh Bukhari : ACG Member
Majid Mohiuddin : ACG Non-Member
Hymie Kavin : ACG Member
Timothy Laurie : ACG Member

IMAGE CAPTION: CT scan before and after irradiation and CT simulation before radiation treatment
AVERAGE SCORE: 3.5
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Purpose: Solid pseudopapillary neoplasm (SPN) of the pancreas is a rare tumor regarded as biologically malignant. Yet, even with metastasis, prognosis remains favorable, since complete surgical resection often results in definitive cure. We present here a case of SPN that has substantially grown in size, resulting in displacement of the stomach and localized metastasis to the liver.

A 42-year-old Hispanic female with a medical history of chronic constipation was admitted for generalized abdominal pain. Similar symptoms were present for the past nine years, which were medically managed with a proton pump inhibitor, calcium carbonate and ibuprofen. On admission, the patient complained of fatigue and nausea, but denied fever or chills. Social history was unremarkable, and the patient’s family history rendered risk factors for cancer, including multiple myeloma and thyroid carcinoma. Relevant surgical history includes an appendectomy and abdominal hernia repair. An abdominal computed tomography (CT) before and after intravenous contrast administration showed a heterogeneous soft tissue mass measuring 127.1 x 80.6 mm at the pancreatic head, subsequently causing displacement of the stomach. Multiple enhancing low density lesions were also seen within the right lobe of the liver.

On examination, she was mildly distressed. Her abdomen was non-distended with voluntary guarding, but without peritoneal signs. Bowel sounds were present, and rectal exam showed negative fecal occult blood test. Laboratory analyses were normal, including tumor markers alpha fetoprotein, CA 19-9 and carcinoembryonic antigen. Subsequent thoracic and pelvic magnetic resonance imaging (MRI) was negative for distant metastasis and suggested no evidence of lymphoproliferative involvement. On hospital day number three, CT-guided biopsy of the pancreatic and liver lesion confirmed the impression of a solid pseudopapillary neoplasm consistent with metastasis to the liver. Differentials had included neuroendocrine tumor and acinar cell carcinoma; both of which were ruled out via immunostaining. Esophagogastroduodenoscopy showed extrinsic mass effect along the greater curvature of the stomach with poor insufflation. The decision was made for surgical resection with debulking of the metastatic lesion.

This case demonstrates an example of a biologically malignant pancreatic neoplasm with good prognostic factors despite metastasis. Although presenting symptoms are generally nonspecific, suspicion for underlying neoplasm must be considered, since accurate diagnosis with histologic confirmation is important for definitive surgical resection. SPN remains a treatable pancreatic lesion.

Methods: N/A
Results: N/A
Conclusion: N/A
CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Poster Only
ACG Research Grant Support: No
Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: Not Applicable
FDA Approval: No
Designed Study: Investigator
Abstract Author: Investigator
AUTH DESIG: ACG Membership Status <font color="red">*</font>:
Benjamin Lee: ACG Non-Member
Alireza Tabesh: ACG Non-Member

(No Image Selected)
(no table selected)

**AVERAGE SCORE:** 3.75

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**
Devi Rampertab: [No Comments]
Selvi Thirumurthi: [No Comments]
Renu Umashanker: [No Comments]
James Vecchio: [No Comments]
Purpose: A 98-year old man with a past medical history of calculous gallbladder disease, sick sinus syndrome complicated by syncope, and hypertension presented to the emergency department complaining of weakness and melenaic stools for 1 day. Physical exam was remarkable for tachycardia; no abdominal tenderness was noted. Admission hemoglobin was 6.6 grams/dL (previously 11 grams/dL). EGD revealed a clean-based superficial antral ulcer; when the endoscope was advanced into the duodenum, a bleeding ulcer covered with a plaque was noted and injected with epinephrine. When the plaque was unroofed, purulent material was seen issuing from a suspected fistulous tract. CT scan demonstrated a gallbladder collapsed around a large gallstone with contiguous duodenal mural thickening. A second EGD with fluoroscopy confirmed a BEF between the duodenum and gallbladder. During the final EGD, performed due to continued bleeding, friable duodenal mucosa was successfully cauterized with argon plasma coagulation. Surgical intervention was deferred due to patient’s age, and the patient was discharged with no further transfusion requirements after completing a course of cefoxitin followed by ciprofloxacin and metronidazole. In this case it can be presumed that chronic cholecystitis originated secondary to an impacted gallstone that also impinged on the gallbladder wall adjacent to the duodenum. This likely caused sequential pressure necrosis associated with infection, purulent inflammation, and fistula formation. Ischemic-inflammatory-pressure duodenitis then developed and resulted in hemorrhage. Calculus gallbladder disease is thought to be the etiology of >90% of non-iatrogenic BEFs, with 54-76% of BEFs being cholecystoduodenal. In patients who are very elderly (>80 years of age) there is a natural hesitancy to intervene surgically in benign (calculous) gallbladder disease (asymptomatic or otherwise). However, a retrospective analysis of patients over 80 years of age with calculous gallbladder disease suggested that since the need for cholecystectomy (CCY) increases with age, and emergent CCY is associated with more complications and higher mortality than elective CCY, it may be prudent to pursue elective CCY earlier in the very elderly. As the vast majority of BEFs are asymptomatic and picked up incidentally, this case is unusual and may be seen increasingly as the population becomes more obese and older.
AVERAGE SCORE: 3.5
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
ABSTRACT BODY:

Purpose: An 84-year-old Caucasian female presented with nausea, vomiting, and abdominal pain. Four years previously, she had an episode of cholecystitis and cholelithiasis that was treated with antibiotics. She declined surgical therapy but was asymptomatic in the ensuing years. During the current illness, her abdomen was soft with mild palpable tenderness in the mid-epigastrium. Bowel sounds were normal and no masses were noted. Laboratory testing including CBC, electrolytes, liver enzymes, and amylase were normal. CT scan showed air in the biliary tree with distention of the duodenum and stomach. Jejunum and ileum were not dilated. Abdominal series showed air fluid levels in the stomach and duodenum, and air in the biliary tree, but no free air was noted. During upper GI endoscopy, the esophagus and stomach were normal; the duodenal bulb contained two ulcers and an ulcerated fistula that led to the gall bladder. Large stones were found in the gallbladder. Retained solid food was in the duodenal bulb. The second portion of the duodenum below the ampulla was obstructed by a large gallstone. The stone could not be removed via endoscopy. The patient underwent an exploratory laparotomy resulting in an enterolithotomy with fistula repair and cholecystectomy. An obstructing gallstone measuring approximately 5 cm was found at the ligament of Treitz. The patient made an uneventful recovery and was discharged home after 9 days. Bouveret’s syndrome is an uncommon complication of gall bladder disease resulting from passage of a gallstone through a cholecystoenteric fistula that causes a proximal bowel obstruction. It is a form of gallstone ileus resulting from an impacted gallstone in the duodenum or pylorus. Patients typically present with epigastric pain, nausea, and vomiting. The average age of a patient with the syndrome is 74.1 years of age (SD±11.1) and is more frequent in women (1.86 female/male ratio). Less than 0.5% of patients with cholelithiasis will develop gallstone ileus; however, in patients over 65 years of age it accounts for 25% of nonstrangulated bowel obstructions. Gallstone ileus only accounts for 1-4% of cases of intestinal obstruction. Of gallstone ileus cases, only 1-3% are Bouveret’s Syndrome. The majority of gallstones in the bowel impact at the ileoceacal junction. Rigler’s triad of gallstone ileus includes pneumobilia, small bowel obstruction, and a gallstone. CT scan will detect all three signs of Rigler’s triad in 78% of cases. Diagnosis of Bouveret’s Syndrome is made in 69% of cases by upper GI endoscopy. If removal is not possible endoscopically, enterolithotomy with or without cholecystectomy and fistula repair is the most common surgical therapy.

Methods: N/A
Results: N/A
Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
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Abstract Author: Investigator

AUTH DESIG: ACG Membership Status <font color="red">*</font>
John Dorsey : ACG Member
Michael Canty : ACG Member
(No Image Selected)
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AVERAGE SCORE: 3.25
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REVIEWER RECOMMENDATION CODE DESCRIPTION: None
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Devi Rampertab: [No Comments]
Selvi Thirumurthi: [No Comments]
Renu Umashanker: [No Comments]
James Vecchio: [No Comments]
Intrasplenic Pancreatic Pseudocyst: A Rare Complication of Acute Pancreatitis

Asim Shuja
St. Elizabeth's Medical Center, Department of Internal Medicine, Tufts University School of Medicine
United States

Purpose: Although rare (1-2%), splenic involvement secondary to acute pancreatitis can include hemorrhage, splenic rupture, or vascular injury. We present a case of intrasplenic pseudocyst, a rare complication of acute pancreatitis.

Case: A 46-year-old male presented with LUQ pain, nausea, and emesis 3 months after being diagnosed with acute pancreatitis secondary to alcohol ingestion. He was afebrile and on examination had LUQ tenderness without rebound. Labs included an amylase of 74, lipase of 41, and normal liver function tests; RUQ ultrasound and KUB were unremarkable. Contrast-enhanced CT scan of abdomen and pelvis revealed residual changes consistent with prior pancreatitis and an ill-defined 1-cm focal hypodensity in the tail of the pancreas, consistent with localized pancreatic necrosis vs. pseudocyst. He was treated conservatively and his symptoms subsequently resolved. Five months later (8 months after initial pancreatitis), the patient presented with similar complaints and a repeat CT scan demonstrated an interval progression of the pancreatic tail lesion with extension into the spleen. Endoscopic ultrasound (EUS) revealed changes suggestive of chronic pancreatitis, with a 2.7 x 2.8 cm thin-walled cystic lesion in pancreatic tail with extension into the spleen, highly suspicious for pseudocyst. EUS-guided fine needle aspiration (EUS-FNA) was then performed and 5 cc of turbid, viscous fluid was aspirated. Gram stain and culture were both negative, and cytology revealed rare WBCs and inflammatory cells without evidence of malignancy, consistent with a pancreatic pseudocyst. Patient remained asymptomatic and follow-up imaging after 3 months revealed complete resolution of the pseudocyst.

Discussion: Splenic complications from acute pancreatitis can be severe and should be closely followed with imaging studies. As with our patient, most patients can be managed conservatively, although interventions such as endoscopic drainage, splenectomy, or distal pancreatectomy can be indicated in some cases. We present a patient with a conservatively managed intrasplenic pseudocyst, a rare complication of acute pancreatitis.

References:

Methods: N/A
Results: N/A
Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Poster Only
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Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: Not Applicable
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Abstract Author: Investigator

AUTH DESIG: ACG Membership Status
Asim Shuja : ACG Non-Member
Ashley Davidoff : ACG Non-Member
Bhavesh Shah : ACG Member

Contrast enhanced CT scan of abdomen showing a cystic lesion in the pancreatic tail extending into the spleen (arrowhead).

IMAGE CAPTION: Contrast enhanced CT scan of abdomen showing a cystic lesion in the pancreatic tail extending into the spleen (arrowhead).
AVERAGE SCORE: 3.25
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Purpose: A 75-year-old male presented for the evaluation of obstructive jaundice. Computed tomography (CT) of the abdomen revealed a 3.4-cm enhancing mass in the distal common bile duct (CBD) with severe extrahepatic and intrahepatic dilation. Carbohydrate antigen 19-9 was normal at 24.1 U/mL. Endoscopic retrograde cholangiography (ERC) confirmed diffuse biliary dilation and a large filling defect in the mid-CBD with irregular ductal margins. However, no extrusion of mucin was seen at the papilla. Small clumps of soft tissue were extracted from the CBD in addition to stones and sludge. Microscopically, superficial fragments of intraductal papillary neoplasm were seen. Endoscopic ultrasound (EUS) demonstrated a localized CBD mass with malignant cells on fine needle aspiration. Whipple’s procedure was performed where a 3.5-cm pedunculated, polypoid mid-CBD mass was found with clear ductal margins and benign adjacent lymph nodes. Histological specimen showed intraductal tubulopapillary adenoma with high-grade dysplasia (HGD) and microscopic mucin. Intraductal papillary neoplasms of the bile duct (IPN-B) are very rare tumors. According to the WHO classification biliary epithelial tumors can be classified into benign adenomas and carcinomas. Intraductal papillary adenoma, also called as papilloma or papillomatosis, is one of the benign biliary epithelial tumors, seen in only 6% of all extrahepatic duct masses. These are characterized by numerous frond-like papillary infoldings from the lamina propria, consisting of slender fibrovascular stalks surrounded by columnar cells and have a high malignant potential. In a review of patients with biliary papillomatosis, Lee et al illustrated presence of papillary adenocarcinoma and mucinous carcinoma in 94% of the cases. Analogous to intraductal papillary mucinous neoplasm of the pancreas (IPMN-P), IPN-B secrete varying amounts of mucin and hence can also be called as intraductal papillary mucinous neoplasm of the biliary duct (IPMN-B). Most of the mucin is retained within the tumor; however, 24% of the cases produce excess mucin. Multiple modalities including cholangiography, EUS, and cholangioscopy are required to make the diagnosis. Optimal management strategy for IPMN-B has not been clearly defined in the literature. The 5-year survival rate in patients after tumor resection is 90%, 50%, 0%, and 58% with biliary papilloma, papillary-CC, non-papillary-CC and IPMN-P, respectively. We report a case of tubulopapillary adenoma with HGD in the CBD, which is a rare tumor and generally has a better prognosis as compared to the other biliary tumors. This case was unusual in that it was associated with a large biliary stone.

Methods: N/A

Results: N/A

Conclusion: N/A
Purpose: An otherwise healthy 24-year-old man presented with 2 weeks of jaundice, fatigue, weight loss, and a dry cough. He lived in an urban city in Ohio with his wife and children. He denied sick contacts. He worked as a cable technician, had no recent travel, and denied any animal or toxin exposure. He denied any use of alcohol, tobacco, or illicit drugs. He was afebrile and his exam was significant for jaundice and mild RUQ tenderness but was otherwise unremarkable. Admission labs revealed a total bilirubin 8.7 (direct bilirubin 5.2), AST 148, ALT 308, and alkaline phosphatase 256. CBC showed a mild leukocytosis. A RUQ ultrasound revealed intrahepatic and extrahepatic biliary ductal dilation with the common bile duct (CBD) measuring 14 mm without choledocholithiasis. A CT of the abdomen noted biliary ductal dilation, secondary to compression of the distal CBD by a soft tissue mass in the portacaval space. No obvious mass lesions were identified in the liver or pancreas. The patient was admitted and underwent endoscopic ultrasound. Multiple enlarged lymph nodes were identified in the periportal region, causing compression of the common bile duct and proximal ductal dilation. Fine needle aspiration was performed. Final cytology was consistent with granulomatous disease, with no evidence of malignancy. Stains and tissue culture for acid-fast bacilli and fungi were negative. Blood testing for TB, syphilis, Cryptococcus, HIV, CMV, EBV, and flow cytometry were unremarkable. Urine histoplasma antigen was negative, and fungal blood culture had no growth. However, fungal complement fixation and immunodiffusion were positive for histoplasmosis and PET scan showed abdominal, mediastinal, and hilar lymphadenopathy. Although final cytology failed to identify fungal organisms, the constellation of findings was felt to be consistent with disseminated histoplasmosis. The patient was started on itraconazole and underwent ERCP with temporary biliary stent. At his 4-week follow up, the patient reported improvement in all symptoms and his bilirubin returned to normal. Histoplasmosis (Histoplasma capsulatum) is a fungal infection that is common in the Ohio and Mississippi River Valley. It is often self-limited, but cases of disseminated histoplasmosis with GI involvement have been extensively reported. However, the dissemination to the periportal lymph nodes resulting in obstructive jaundice is extremely rare and this appears to be one of only two cases reported in the literature. While choledocholithiasis and malignancy are commonly thought of as sources of biliary obstruction in young patients, one should be mindful of rare fungal infections, especially in endemic areas.

Methods: N/A
Results: N/A
Conclusion: N/A

AUTH DESIGN: ACG Membership Status <font color="red">*</font>:
Bryan Kleinman : ACG Member
Brett Sklaw : ACG Member
Peter Muscarella : ACG Non-Member
Jonathan Walker : ACG Non-Member
(No Image Selected)
Purpose: Hemosuccus pancreaticus (HP) is a very rare cause of upper GI bleed where bleeding occurs through the pancreatic duct and exits through the ampulla of Vater into the duodenum. HP has several possible different etiologies. We herein describe a case of HP secondary to a splenic artery pseudoaneurysm. A 39-year-old female with a known history of chronic pancreatitis presented with two episodes of frank hematemesis 2 weeks apart requiring hospitalization. Esophagogastroduodenoscopy (EGD) was performed after each episode. No active bleeding or source of possible bleeding was identified. Given her history of recurrent pancreatitis and pancreatic pseudocysts, a CT scan of the abdomen with IV contrast was obtained and showed a large contrast-filled pseudoaneurysm in the body of the pancreas measuring 5.7 x 4.5 cm with no definite evidence of active extravasation. Angiography showed a large pseudoaneurysm arising from the splenic artery. Embolization of the splenic artery and of the collateral flowing from the pancreaticoduodenal artery into the splenic artery and pseudoaneurysm was performed successfully. Two months later, her hemoglobin was 12.5 g/dL, and repeat CT scan showed a significantly reduced pancreatic pseudocyst. Patient denied any melena or hematemesis since the embolization. HP is intermittent, making the diagnosis by EGD very difficult since actual bleeding from the ampulla is rarely seen. Blood flowing through the drainage passage coagulates and causes an obstruction; the hemorrhage will stop for days or weeks until this blood clot dissolves, then the hemorrhage resumes. It can easily be missed since abdominal imaging to detect pseudoaneurysms or other etiologies of HP is not part of the standard workup of upper GI bleed. Finally, physicians should suspect HP in the setting of intermittent upper GI bleed in patients with HP risk factors such as history of pancreatitis and pseudocysts.

Methods: N/A

Results: N/A

Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports

CURRENT SUB-CATEGORY: C. Pancreatic/Biliary

PRESENTATION TYPE: Poster Only

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Commercial Products or Services: No

Initiated Research: Investigator

Financial Relationships: Not Applicable

FDA Approval: No

Designed Study: Investigator

Abstract Author: Investigator

AUTH DESIG: ACG Membership Status <font color="red">*</font>:
Mustapha El-Halabi : ACG Non-Member
Nabil Mansour : ACG Non-Member
Said Chaaban : ACG Non-Member
William Salyers : ACG Non-Member
(No Image Selected)
(no table selected)

AVERAGE SCORE: 4

REVIEWER FLAGS: (none)

REVIEWER RECOMMENDATION CODE DESCRIPTION: None

REVIEWER COMMENTS:
Devi Rampertab: [No Comments]
Selvi Thirumurthi: [No Comments]
Renu Umashanker: [No Comments]
James Vecchio: [No Comments]
Intrahepatic Cholangiojejunostomy (Longmire Procedure) for Recurrent Bilioenteric Anastomotic Stricture with Hepatolithiasis

Takashi Mishima

Department of General Surgery, Chiba University Graduate School of Medicine

Japan

Purpose: Interventional procedure via percutaneous transhepatic route is often performed, as an initial treatment, in patients with benign bilioenteric anastomotic stricture. However, surgical management is required in most cases in which radiological intervention is unsuccessful. In this report, we describe a case of a 67-year-old woman with recurrent bilioenteric anastomotic stricture, accompanying bilateral hepatolithiasis after several times of transhepatic interventions. The patient underwent intrahepatic cholangiojejunostomy (Longmire procedure) and cholangioscopic lithotomy after resection of an atrophic left lateral segment resulting from hepatolithiasis. Although the damaged hilar bile duct had to be isolated and divided from the corresponding vasculature for reanastomosis, it was quite impossible due to severe inflammatory change at the hepatic hilus. We, therefore, anastomosed the intact biliary stump on the cut surface of the left lateral segment to the jejunal loop with a stent tube. The patient's postoperative course was uneventful, and she exhibited no evidence of cholangitis during follow-up period of 1 year after surgery. At present, the indications for intrahepatic cholangiojejunostomy for biliary obstruction are quite limited, but biliary surgeons should keep this procedure in mind at the time of biliary reconstruction for benign proximal bile duct stricture, particularly in cases of multiply operated hilum.

Methods: N/A

Results: N/A

Conclusion: N/A

Supported by Industry Grant: No

Commercial Products or Services: No

Initiated Research: Investigator

Financial Relationships: Not Applicable

FDA Approval: No

Designed Study: Investigator

AUTH DESIGN: ACG Membership Status *<font color="red">*<font>

Takashi Mishima: ACG Non-Member

Hiroaki Shimizu: ACG Non-Member

Masayuki Ohtsuka: ACG Non-Member

Atsushi Kato: ACG Non-Member

Hideyuki Yoshitomi: ACG Non-Member

Katsunori Furukawa: ACG Non-Member

Tsukasa Takayashiki: ACG Non-Member

Satoshi Kuboki: ACG Non-Member

Daiki Okamura: ACG Non-Member

Daisuke Suzuki: ACG Non-Member

Sakai Nozomu: ACG Non-Member

Masayuki Nakajima: ACG Non-Member

Masaru Miyazaki: ACG Non-Member

(No Image Selected)

(no table selected)
AVERAGE SCORE: 4.25
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Devi Rampertab: [No Comments][Selvi Thirumurthi: [No Comments][Renu Umashanker: [No Comments][James Vecchio: [No Comments]
Purpose: The occluded biliary expandable metallic stent (EMS) placed for postoperative stricture of bilioentero-anastomosis can be treated with percutaneous interventional procedures, but most EMSs eventually re-occlude after a certain period of time with sludge/stone or epithelial hyperplasia. The complete removal of EMS is, therefore, required for a good long-term outcome. Surgical procedures with EMS removal and re-bilioenteric anastomosis after resection of damaged bile ducts are usually complex and difficult, especially when the proximal end of the EMS is located at the second or more proximal biliary branch. In such cases, we have devised a new technique for complete EMS removal and more proximal hepatic duct resection by separating the liver parenchyma along the interlobar plane (anterior transhepatic hepatic approach). Liver transection is performed along the left side of the middle hepatic vein until good exposure of the hilar plate is obtained. The EMS is then extracted, together with resection of the dense/damaged intrahepatic ducts for re-biliary reconstruction. The anterior transhepatic approach may be a very useful procedure for approach to the second or more proximal biliary ducts without hepatic resection.

Methods: N/A
Results: N/A
Conclusion: N/A
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Devi Rampertab: [No Comments]
Selvi Thirumurthi: [No Comments]
Renu Umashanker: [No Comments]
James Vecchio: [No Comments]
Purpose: Introduction: Anomalies of the hepatobiliary ductal system are not uncommon. Accessory ducts are sometimes seen and rarely drain a large enough area of liver to cause significant obstruction. In a review of over 2,000 cases from nine studies, Berci et al reported 12% prevalence of anomalous biliary ducts. Puente et al reported a prevalence of 18.5% of congenital abnormalities of the biliary tract and 6.5% of anomalous hepatic ducts. We report a case of low insertion of an accessory left hepatic duct into the common bile duct (CBD), which is a rare anomaly with no reported cases in literature, and its significant obstruction from a pancreatic adenocarcinoma, stenting, and good outcome post-procedure.

Case Report: A 65-year-old woman with history of diabetes mellitus and hypertension who initially presented with abdominal pain and weight loss was found to have stage IV pancreatic head adenocarcinoma. Her CA 19-9 level was 16,667 at presentation. After failure of initial chemotherapy, patient was found to have elevated liver function tests (LFT) including elevated total bilirubin. CT imaging showed dilated CBD. MRCP done to delineate the pancreaticobiliary anatomy showed intra- and extrahepatic duct dilatation with aberrant biliary duct anatomy and dilated accessory left hepatic duct draining the lateral segments (2 & 3) of the left hepatic lobe, inserting directly into the common bile duct at a low insertion point just proximal to ampulla of Vater. This aberrant duct measured 6 mm. The common bile duct measured 11 mm. Endoscopic retrograde cholangiopancreatography (ERCP) was then performed with dilation of distal stenosis. Using the two guidewire technique, two 6 cm x 8 mm covered metal stents were placed in the common bile duct and the aberrant left hepatic duct. Good biliary drainage was established. Patient improved significantly within a few days from deeply jaundiced state to near normal. The LFT’s normalized over the next few weeks. Patient was subsequently able to resume chemotherapy treatments for control of disease progression. Patient continues to remain symptom-free as of this report at 9 months post-insertion of stents.

Discussion: Anatomical variants of the hepatobiliary tree can be clinically challenging for the endoscopists performing ERCP. An innovative ERCP was performed and two metallic stents were placed into the main bile duct and the accessory left hepatic duct. Our success with bilateral biliary drainage with double metallic stents in improving the quality of life shows that this innovative intervention should be considered in patients with anomalous biliary anatomy.

Methods: N/A
Results: N/A
Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
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FDA Approval: No
Designed Study: Investigator
Abstract Author: Investigator

AUTH DESIG: ACG Membership Status <font color="red">*</font>
Manpreet Singh : ACG Member
Irfan Hisamuddin : ACG Member
Rohit Singhania : ACG Member
(No Image Selected)
(no table selected)
AVERAGE SCORE: 3.75
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Purpose: A 69-year-old female veteran with 10-pound weight loss in past month initially presented from clinic with elevated liver tests and jaundice that had been present for 3 weeks. On exam, she was jaundiced, and the liver, gallbladder, and spleen were not palpated. Lab results included ALT 65 U/L, AST 55 U/L, alkaline phosphatase of 284 U/L, total bilirubin 18.90 mg/dL. Her direct bilirubin measured 8 days prior to admission was noted to be 5.20 mg/dL (normal 0-0.4 mg/dL). Serum showed strong presence of cold agglutinins with direct coombs showing positive antihemophilic globulin (AHG) D and C3d, and negative anti-IgG. LDH was elevated at 1015 U/L, haptoglobin was low at <5.83 mg/dL, and reticulocyte count was elevated at 0.1900. MRI abdomen identified a 2-2.2 cm pancreatic head mass and EUS-FNA pathology confirmed pancreatic adenocarcinoma. ERCP and biliary stenting x 2 failed to resolve the jaundice. PTC with external-internal biliary drainage was equally ineffective. The stents did not fail throughout the hospitalization. The patient continued to have extreme elevations of total bilirubin, reaching a maximum of 51.40 mg/dL and stabilizing near 50.00 mg/dL. Surgical intervention was not possible, so she was offered plasmapheresis to reduce the bilirubin levels; however, she declined to undergo the procedure. She continued to deteriorate clinically and succumbed to multiorgan system failure. A request for autopsy was denied by family. Cold agglutinin disease (CAD) can also be associated with increased bilirubin due to its association with hemolysis. CAD, found in 16-32% of autoimmune hemolytic anemia (AIHA) cases, is usually present in lymphoid malignancies, but rarely present with solid tumors (3,4). In our case, the patient did have CAD because of the presence of cold agglutinins, elevated total and direct bilirubin, low haptoglobin, increased reticulocyte count, increased LDH, and positive DAT. The pancreatic mass was a source, but other potential causes such as hepatitis, syphilis, and neonatal diseases were ruled out. In addition, she had no signs of an infection, since her blood cultures were negative, and the CXR did not demonstrate lung consolidation. In conclusion, the mechanism of the extreme hyperbilirubinemia in adults must be identified and therapy towards the etiologic entity must begin promptly.

Methods: N/A
Results: N/A
Conclusion: N/A
REVIEWER COMMENTS:
Purpose: Pancreatic cancer is the fourth most common cause of cancer death in the United States. The strongest risk factors are increasing age (median age 72 years), male gender, and smoking. Symptoms are often nonspecific, with abdominal pain being the most common presentation. Pancreatic cancer is often advanced at the time of diagnosis. There are few reported cases of pancreatic cancer occurring during pregnancy. We present a rare case of a pregnant woman who was diagnosed with metastatic pancreatic cancer during her third trimester. A 34-year-old G1P0 woman presented at 26 weeks gestation with abdominal pain. Her pain was preceded by nausea, rare vomiting, and transient loose stool. Her past medical history was significant for a cholecystectomy for symptomatic gallstones. Physical examination was remarkable for stable vital signs, normoactive bowel sounds, and a gravid, tender abdomen. The laboratory studies showed elevated transaminases (AST 68 U/L, ALT 100 U/L), alkaline phosphatase (227 U/L), and lipase (364 U/L). The serum bilirubin was normal. Abdominal ultrasound revealed diffuse dilatation of the common bile and pancreatic ducts. MRCP showed pancreatic head fullness and dilated main pancreatic duct. She opted to avoid endoscopic evaluation until after delivery and was therefore discharged home with symptomatic treatment. One week following discharge she returned with recurrent abdominal pain and nausea. A repeat ultrasound showed worsening bile duct dilatation. A repeat MRCP confirmed increased bile duct dilatation and new scattered liver lesions along peripancreatic lymphadenopathy. Endoscopic ultrasound (EUS) demonstrated a 3.8 x 2.3 cm pancreatic head mass with encasement of superior mesenteric vein. Fine needle aspiration of the mass confirmed pancreatic adenocarcinoma. Palliative biliary stenting was performed due to new onset jaundice. The caesarean section using a Pfannenstiel incision was performed when laparoscopic visualization showed unresectable pancreatic head mass with regional lymphadenopathy and metastatic liver lesions. The patient opted for supportive care and was discharged with home hospice. This is a rare case of metastatic adenocarcinoma of the pancreas occurring during pregnancy. There are only 15 cases in the literature with variable symptoms reported at presentation. Diagnosing pancreatic cancer during pregnancy can be challenging. Typical diagnostic modalities may be hampered by pregnancy or may pose maternal or fetal risks. Although rare, a high index of suspicion must be maintained for occult pancreatic malignancy when a pregnant woman has unexplained symptoms.

Methods: N/A

Results: N/A

Conclusion: N/A
AVERAGE SCORE: 2.75
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Purpose: Introduction: Groove pancreatitis is a rare segmental form of chronic pancreatitis characterized by the fibrous scar at the “groove” between the head of pancreas, duodenum, and common bile duct (CBD). Classic patients are alcoholic middle-aged men. We describe groove pancreatitis in a young man who presented with abdominal pain.

Case Presentation: A 35-year-old man with history of chronic alcoholic pancreatitis presented with worsening epigastric abdominal pain with vomiting over the past few months as well as unintentional weight loss of 25 pounds. He denied alcohol use in the past 4 months. He was admitted at an outside hospital with these symptoms 2 days prior to this visit and had esophagogastroduodenoscopy (EGD) performed, which showed dilated duodenum and mild gastritis. Biopsies demonstrated the reactive changes. Physical examination revealed mild tenderness at epigastrium. Lipase was 86 unit/L and amylase was 34 unit/L. CT scan of the abdomen revealed a 1-cm ovoid hypodensity lesion at the lateral aspect of pancreatic head with dense strands toward duodenum (Image 1). Magnetic resonance cholangiopancreatography (MRCP) demonstrated fluid signal in the lesion in T1 images with slight hyperdensity in T2 weight sequence (Image 2). There was no biliary stone or bile duct dilatation. The CT and MRCP findings are consistent with groove pancreatitis. He was treated with conservative treatment, however abdominal pain was not improved. Surgery was consulted for considering the definitive treatment with pylorus-preserving pancreaticoduodenectomy.

Discussion: Groove pancreatitis is a rare form of chronic pancreatitis characterized by extensive fibrous scar in the “groove” between the head of pancreas, duodenum, and common bile duct. Clinical features are similar to the usual chronic pancreatitis but emesis tends to be more pronounced. Amylase and lipase are usually normal. Diagnosis is made by clinical features and typical imaging findings. Classic CT scan findings are hypodensity mass between pancreatic head, dense stranding, and thickening of duodenal wall. MRCP typically shows hypodensity mass on T1 weighed image, which is slightly hyperdense on T2-weighted images. EGD usually reveals stenosis of duodenum with thickening of mucosa. Conservative treatment for the chronic pancreatitis is the treatment of choice, though it is usually not very effective. Whipple operation is the second-line treatment for refractory cases. Three-fourths of the patients are pain-free after the surgery.

Methods: N/A
Results: N/A
Conclusion: N/A
AVERAGE SCORE: 3.25
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Purpose: Introduction: Hypertriglyceridemia is one of the common causes of acute pancreatitis. However, specific treatments have not been well studied. We described successful treatment of hypertriglyceridemia-induced acute pancreatitis (HTGP) with and without necrosis in young patients with combination therapy of insulin and heparin. Case Presentation: Case one is a 27-year-old man and case two is a 36-year-old woman. They both have hypertriglyceridemia with recurrent HTGP secondary to poorly-controlled diabetes mellitus type II. They had cholecystectomy several years prior and denied alcohol use. Lipase levels were 9,617 mg/dL and 5,242 U/L, respectively. Triglyceride level was 5,250 mg/dL in case one and 3,572 mg/dL in case two. CT scan of the abdomen showed edematous pancreas with 45% necrosis mostly at the pancreatic body in case one, but showed only edematous pancreas without necrosis or fluid collection in case two. Conservative treatments for acute pancreatitis were started (nil per mouth, aggressive intravenous fluid hydration, and pain control). Continuous intravenous insulin infusion with hourly titration to achieve goal blood sugar of 120-180 mg/dL and heparin 5,000 units delivered subcutaneously every 8 hours were also initiated. Surgical team was consulted in case one, but with clinical and biochemical improvement, he was deemed not requiring surgical intervention. Significant clinical improvement was observed 48-72 hours after treatment in both cases. They were discharged after 8-day and 4-day hospitalization, respectively, with fenofibrate as a long-term therapy for hypertriglyceridemia. Discussion: Hypertriglyceridemia is the third most common cause of acute pancreatitis. Pathophysiology is thought to be from breakdown of triglyceride into toxic free fatty acid causing acute inflammation. Several specific treatment modalities have been tried in case reports and case series. In our cases, we use continuous intravenous infusion of insulin and subcutaneous porcine heparin 5,000 units every 8 hours. Significant biochemical improvements were observed within 24 hours preceding clinical improvements. Combination therapy of insulin and heparin was effective in both of our patients with acute necrotic pancreatitis (case one) and acute interstitial edematous pancreatitis (case one). Serum triglyceride level, lipase level, and anion gap were higher in case one. However, rate of decreases in these markers were comparable after the therapy.

Methods: N/A
Results: N/A
Conclusion: N/A
**REVIEWER COMMENTS:**

Devi Rampertab: [No Comments]  
Selvi Thirumurthi: [No Comments]  
Renu Umashanker: [No Comments]  
James Vecchio: [No Comments]
Purpose: Introduction: Primary Non-Hodgkin’s lymphoma (NHL) of the common bile duct (CBD) is a rare disease that usually presents with obstructive jaundice. We present the case of a patient who developed painless jaundice and a biliary stricture suspicious for cholangiocarcinoma. He underwent a pancreaticoduodenectomy (Whipple procedure). Post-surgical pathology of bile duct was diagnostic of extranodal mucosa-associated lymphoid tissue (MALT) lymphoma.

Case presentation: A 63-year-old male with a history of arthritis, hypertension, COPD, and coronary artery disease was admitted with obstructive jaundice. The preoperative abdominal MRI showed soft tissue prominence around the mid and distal portions of the CBD. This area restricted on the diffusion weighted phase and was concerning for cholangiocarcinoma. The patient underwent a Whipple procedure. Post-surgical pathology from the stricture revealed a dense, nodular infiltrate of small lymphoid cells. These cells were strongly positive for CD45, CD20, PAX5, and BCL2. Many of them expressed kappa light chain with fewer lambda positive cells. The morphologic and immunophenotypic features were diagnostic of low-grade B-cell lymphoma. The lack of CD10 and BCL6 positivity did not favor follicular lymphoma. The low-grade cytologic features of the cells and presence of disrupted expanded follicular dendritic cells favored extranodal MALT lymphoma. In the absence of systemic disease, this represented a primary biliary MALT lymphoma.

Discussion: Primary bile duct lymphomas are extremely rare. Most of them are diffuse large B-cell lymphomas. However, some are extranodal marginal zone B-cell lymphomas (as in our case) or follicular lymphomas. Only a few cases of primary MALT bile duct lymphomas have been described. Primary bile duct lymphomas account for less than 1% of all extranodal lymphomas. They typically present with obstructive jaundice. Clinical and radiological features are similar to extrahepatic cholangiocarcinomas. There are no standard treatments given the rarity of the disease. Multiple, deep biopsies from the suspected lesion are necessary for definitive diagnosis. Complications of curative surgery for biliary lymphomas, such as bile leak, hemorrhage, and cholangitis, are associated with a high morbidity rate of 13-42%. Primary NHL of the extrahepatic bile duct should be considered in the differential diagnosis when a patient with obstructive jaundice presents with discrepant imaging findings on CT or MRI and ERCP. An accurate histopathologic diagnosis and surgical resection, if feasible, combined with chemotherapy with or without radiotherapy may be the approach to offer a chance for cure.

Methods: N/A
Results: N/A
Conclusion: N/A
Farshad Aduli : ACG Member
Daniel Borja-Cacho : ACG Non-Member
(No Image Selected)
(no table selected)
**AVERAGE SCORE:** 2
**REVIEWER FLAGS:** (none)
**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None
**REVIEWER COMMENTS:**
David Hass: [No Comments] Charlene Le Pane: [No Comments] Renee Young: [No Comments] Rowen Zetterman: [No Comments]
Purpose: Introduction: Neurofibromatosis type 1 (NF 1) is an uncommon autosomal disorder associated with an increased risk of tumors, especially neurofibromas. Severe hypercholesterolemia with a total serum cholesterol level greater than 1,000 mg/dL is extremely rare but has been described as a result of biliary obstruction. We present a patient with NF 1 and severe hypercholesterolemia in the setting of obstructive jaundice from a porta hepatis lesion that resolved with successful biliary decompression.

Case: A 59-year old male presented with a 3-month history of epigastric pain, pruritus, jaundice, and weight loss of 15 lbs. On clinical examination, he was icteric and had an enlarged non-tender liver. He met the criteria for NF 1 with multiple skin fibromas, >10 café-au-lait spots >1.5 cm in diameter, and extensive axillary freckling. Lab tests revealed a total bilirubin (T.bili) of 18.6 mg/dL, direct bilirubin of 12.8 mg/dL, alkaline phosphatase of greater than 1,650 IU/L, and severe hypercholesterolemia with serum total cholesterol >1,000 mg/dL and LDL >1,000 mg/dL. On abdominal imaging, a 4.5 x 5 x 3.4 cm soft tissue mass was noted in the porta hepatis with marked intra- and extrahepatic biliary duct dilatation and abrupt occlusion of the mid common bile duct (CBD). ERCP revealed a long 5-6 cm proximal CBD stricture (Image 1). A self-expanding metal stent (SEMS) was deployed across the stricture to relieve the obstruction. Following ERCP with SEMS placement, the patients T.bili decreased to 2 mg/dL, along with a decrease in the patient’s total cholesterol to 438 mg/dL and LDL to 303 mg/dL. Endoscopic ultrasound with FNA of the porta hepatis mass revealed cytology consistent with a neurofibroma.

Discussion: NF 1 is caused by a defect in the NF-1 gene, a tumor suppressor gene on chromosome 17q11.2. Neurofibromas are an extremely rare cause of obstructive jaundice. The exact mechanism of hypercholesterolemia in obstructive jaundice is not known but a defect in hepatic lipase and hepatic cholesterol synthesis has been hypothesized. Of note, hypercholesterolemia occurring in the setting of obstructive jaundice responds well to relief of the obstruction and not to medical therapy. This is the first report of a neurofibroma leading to biliary obstruction and severe hypercholesterolemia which resolved after biliary decompression.
Fluoroscopic image showing proximal CBD stricture;
Endoscopic image showing SEMS

AVERAGE SCORE: 2.67
REVIEWER.Flags: (none)
REVIEWER.RECOMMENDATION CODE DESCRIPTION: None

REVIEWER COMMENTS:
David Hass: [No Comments]
Charlene Le Pane: [No Comments]
Renee Young: [No Comments]
Rowen Zetterman: [No Comments]
Purpose: Very few case reports of acute suppuration of the pancreatic duct (ASPD), an infectious process similar to ascending cholangitis have been described. In ASPD, pancreatic obstruction results in the development of infection, SIRS, and pus within the pancreatic duct (PD). Here we report a case of ASPD successfully treated with emergent ERCP. A 33-year-old female with history of acute recurrent pancreatitis, likely secondary to tropical pancreatitis, presented with severe epigastric pain radiating to the back and nausea. She denied alcohol consumption, smoking, illicit, herbal, or prescription drug use. She reported multiple episodes of pancreatitis in the past and had previously undergone ERCP and cholecystectomy at an outside hospital. Ultrasound of the abdomen demonstrated CBD dilatation of 7 mm, consistent with post-cholecystectomy state. CT scan of the abdomen (PO and IV contrast) revealed acute pancreatitis, diffuse pancreatic atrophy, and ductal dilatation with obstruction due to a soft tissue lesion within the distal duct. Labs revealed normal pancreatic enzymes and an indirect hyperbilirubinemia (1.6/0.2). The patient was clinically stable upon admission and treated with bowel rest, pain management, and aggressive IV hydration. Within 24 hours she developed leukocytosis, hypotension, fever, and chills. Emergent ERCP was performed. The ampulla appeared edematous and a previous sphincterotomy was noted. The CBD was cannulated, “clean” bile emanated, and cholangiogram did not reveal biliary obstruction. After pancreatic ductal cannulation, copious pus emanated from the orifice. A pancreaticogram revealed diffuse PD dilatation and multiple filling defects, consistent with stones. A plastic single pigtail stent was placed traversing the ampulla and PD filling defects. Initially, pus drained from the stent, followed by clear pancreatic fluid. The patient rapidly improved over the following 24 hours. Prior to discharge, she underwent ERCP with pancreatic ductal sphincterotomy, stone extraction, and pancreaticogram, which revealed no further filling defects. ASPD is a rare and potentially fatal infectious complication of pancreatic ductal obstruction with few cases reported in the English literature. The paucity of this condition makes it an unusual diagnosis that should be considered in patients with AP who develop early clinical decompensation. As in this case, emergent ERCP and PD decompression is essential in the successful treatment of ASPD.

Methods: N/A
Results: N/A
Conclusion: N/A
AVERAGE SCORE: 2
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
David Hass: [No Comments] Charlene Le Pane: [No Comments] Renee Young: [No Comments] Rowen Zetterman: [No Comments]
Pancreatic Arteriovenous Malformation as a Rare Cause of Acute Pancreatitis

Shunya Onoue
Shimada Municipal Hospital Division of Gastroenterology and Hepatology, Japan

Purpose: Introduction: Pancreatic arteriovenous malformation (PAVM) is a rare disease with various clinical manifestations. In most cases, the condition is congenital. Acquired etiology includes tumors, inflammation, trauma, and complication of pancreatic transplantation. Some patients with PAVM are asymptomatic, but others present with conditions such as gastrointestinal bleeding and pancreatitis.

Case Report: A 56-year-old man was admitted to our hospital with a 1-week history of epigastralgia, back pain, and appetite loss. He was incidentally diagnosed 8 years ago as having PAVM by medical checkup. His past medical history included hypertension and hyperlipidemia, but he had no past history of trauma, abdominal surgery, or other congenital abnormalities. On physical examination, his abdomen was soft and flat, and epigastric tenderness was noted without muscular guarding or rebound tenderness. There were no signs of portal hypertension. The laboratory data on admission disclosed the following values (normal reference range is given in parentheses): leukocyte count 14,800 /mm$^3$ and C-reactive protein 14.11 mg/dL (<0.3 mg/dL). Serum amylase and serum lipase were elevated to 319 IU/L (25-115 IU/L) and 136 IU/L (17-57 IU/L), respectively. Computed tomography (CT) scan revealed a well-enhanced mass lesion in the head of the pancreas with early enhancement of the portal vein in the arterial phase. The lesion involved the main trunk of the portal vein, which showed abnormal narrowing. CT also revealed findings of acute pancreatitis such as segmental enlargement of the pancreatic head and abnormal density of peripancreatic fat. On selective angiography, mesenteric angiogram and celiac angiogram demonstrated a racemose vascular network with early portal vein opacification around the mesenteric root and gastroduodenal artery. All these imaging findings were consistent with a diagnosis of PAVM. Since conservative treatment for pancreatitis was not effective, he underwent pancreatectoduodenectomy. Histopathologic examination confirmed the diagnosis of PAVM. His postoperative course was uneventful, and he remains asymptomatic to date.

Discussion: PAVM is a rare disease. The diagnostic findings include racemose vascular networks and multiple feeding vessels with early portal vein opacification in the early arterial phase. Gastrointestinal bleeding is the most common presenting symptom of PAVMs, but those can be a rare cause of acute pancreatitis. We presumed by analogy to brain AVM that ischemic injury due to steal phenomenon may have contributed to the etiology of acute pancreatitis in the patient. Gastroenterologists should be aware of PAVM as a rare cause of acute pancreatitis.

Methods: N/A
Results: N/A
Conclusion: N/A

AUTH DESIG: ACG Membership Status <font color="red">*</font>:
Shunya Onoue : ACG Non-Member
Muneji Morishita : ACG Non-Member
Masahiro Matsushita : ACG Member
Hirokazu Kanayama : ACG Non-Member
Masahiko Takahashi : ACG Non-Member
Hiroyuki Mabuchi : ACG Non-Member
Kohei Ishibashi : ACG Non-Member
Kazuyasu Kamimura : ACG Non-Member
Kazufumi Kimura : ACG Non-Member
(No Image Selected)
(no table selected)

**AVERAGE SCORE:** 3.67

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**
David Hass: [No Comments][Charlene Le Pane: [No Comments][Renee Young: [No Comments][Rowen Zetterman: [No Comments]
Purpose: A 47-year-old man with a history of diabetes mellitus and acute pancreatitis came to the emergency department complaining of 2 days of upper abdominal pain radiating to the back. His physical examination revealed mild abdominal distention and epigastric tenderness. His first episode of acute pancreatitis was 3 years before and he had a second bout 3 months prior to this presentation. He reported remote alcohol consumption but none in the preceding year. Biochemical testing showed an elevated lipase of 271 U/L with normal liver enzymes. CT scan of the abdomen was consistent with acute pancreatitis without any evidence of chronic pancreatitis. Hepatobiliary ultrasound was normal. He underwent a EUS, which revealed extrinsic compression of the second part of duodenum with circumferential pancreatic tissue, heterogeneous parenchyma in the region of the pancreatic head, and non-dilated pancreatic duct (PD). He subsequently underwent ERCP and pancreatography showed a C-loop duct suggestive of annular pancreas. The patient then underwent a laparotomy, at which time the diagnosis of annular pancreas was confirmed and a pylorus-preserving Whipple’s procedure was done. He was discharged 2 weeks later and has been symptom free at 4-month post-operative follow-up. Annular pancreas is a congenital anatomic anomaly which often reveals itself in adult life. It is associated with a wide spectrum of clinical presentations in adults including abdominal pain, gastric outlet obstruction, as well as pancreatitis and pancreatic malignancy. Abdominal pain is the most common symptom and nearly 20% of patients present with acute pancreatitis. Pancreatitis due to annular pancreas is usually confined to the annulus and to the adjoining pancreatic head, sparing the body and tail of the gland. Although it has been reported in children before, this is the first reported case of recurrent acute pancreatitis in an adult with annular pancreas. Existing evidence favors intestinal bypass procedures for patients presenting with duodenal obstruction and proscribes surgical resection of the annulus, citing a higher incidence of pancreatic fistula. However, a therapeutic dilemma exists in patients presenting with pancreatitis without intestinal obstruction. Conservative management often provides temporary relief but does not eliminate the risk of future attacks, chronic pancreatitis, and pancreatic malignancy. A pylorus-preserving Whipple’s procedure appears to be intuitively appropriate in this setting. Although current experience denounces resection, the authors believe that additional studies are needed to identify patient characteristics and clinical scenarios where the benefits of annular resection may outweigh the risks.

Methods: N/A
Results: N/A
Conclusion: N/A

AUTH DESIGN: ACG Membership Status <font color="red">*</font>:
Shounak Majumder : ACG Member
Nikhil Kapila : ACG Non-Member
Colin Swales : ACG Non-Member
(No Image Selected)
(no table selected)
AVERAGE SCORE: 4.67
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
David Hass: [No Comments] Charlene Le Pane: [No Comments] Renee Young: [No Comments] Rowen Zetterman: [No Comments]
Purpose: To identify pancreatogastric fistula as a rare complication of necrotizing pancreatitis presenting as hematemesis and melena.

Case: A 48-year-old male with history of alcohol abuse presented with severe epigastric pain for 5 days. He also reported six episodes of hematemesis and associated melena which started 24 hours prior to presentation. He denied fever or chills. On admission, he was hypotensive (96/62), tachycardic (107), afebrile (98.3 F) with epigastric tenderness and maroon stool in rectal vault. Hbg dropped from 7.7 g/dL to 4.8 g/dL. WBC count was 22.1 K/mm$^3$ and lipase was 16 U/L. A CT scan showed chronic pancreatitis and pancreatic pseudocyst abating the stomach. EGD showed clotted blood in the entire stomach but no site of active bleeding was identified. A large fistula leading to pseudocyst was found in the cardia noted to be draining pus and debris. The cyst was accessed by the gastroscope for possible irrigation and debridement. However, bleeding of arterial nature appeared from within the cyst that could not be stopped despite epinephrine injections and the procedure was aborted. A tagged RBC scan showed no evidence of active bleed suggesting that bleeding had ceased. In the absence of active bleed and ongoing necrotizing and inflammatory process emergent surgical intervention was deferred and he was monitored in the ICU. His Hbg remained stable requiring no further transfusions. Patient was pain-free and tolerating regular diet at day 3 of hospitalization. A CT was done that showed reduction of cyst size to less than half within a week of initial presentation.

Discussion: Fistula formation is one of the most feared complications of pancreatitis. Secondary to close proximity, fistula in most cases connects the pseudocyst to either the transverse colon or splenic flexure, but in our patient, it formed between a pseudocyst and the stomach. A study by G.G. Tsiotos, et al evaluating the incidence of fistula formation following necrotizing pancreatitis showed that none of the 64 patients had gastropancreatitic fistula prior to surgery. The inflammatory process which results in fistula formation can also lead to vascular invasion and in the presence of communication with GI lumen and the patient can present with hematemesis and melena, which can be misleading. Fistula by providing a drainage path can facilitate healing.

Methods: N/A
Results: N/A
Conclusion: N/A

AUTH DESIG: ACG Membership Status <font color="red">^</font>:
Salman Nusrat : ACG Non-Member
Muhammad Khan : ACG Non-Member
Faiz Shakir : ACG Non-Member
Ralph Guild : ACG Member

Fistulous tract between pancreas and stomach on CT and endoscopy.

IMAGE CAPTION: Fistulous tract between pancreas and stomach on CT and endoscopy.
(no table selected)
AVERAGE SCORE: 4
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
David Hass: [No Comments]
Charlene Le Pane: [No Comments]
Renee Young: [No Comments]
Rowen Zetterman: [No Comments]
Pancreatic Adenocarcinoma Presenting as S. bovis Subtype II/1 Bacteremia

Izabela Postacchini

Advocate Lutheran General Hospital, Department of Internal Medicine

United States

Purpose: An 81-year-old female with a medical history of hypertension and atrial fibrillation presented with 1 week of intermittent right upper quadrant abdominal pain associated with fever and chills. The patient reported a 40-pound unintentional weight loss over the past year. Two weeks prior to admission, the patient had nausea and vomiting and underwent an unremarkable esophagogastroduodenoscopy and colonoscopy at an outside hospital. On admission, the patient met criteria for a systemic inflammatory response. CT scan of the abdomen and subsequent MRCP showed a common bile duct measuring 1.7 cm and a 4 x 3 cm mass in the head of the pancreas. Endoscopic ultrasound guided fine needle aspiration revealed adenocarcinoma. Blood cultures returned positive for S. bovis subtype II. Streptococcus bovis is a gram positive cocc found in 2.5-15% of the general population. Due to many recent taxonomy changes, S. bovis is now divided into: S. gallolyticus, with the subspecies gallolyticus (formerly S. bovis subtype I), S. infantarius (formerly S. bovis subtype II/1), and S. pasteurianus (formerly S. bovis subtype II/2). Subtype I is most common and usually associated with infective endocarditis, while subtype II is less common and associated with biliary tract disease. Twenty one studies have concluded 25-80% of patients with S. bovis bacteremia have colorectal tumors. After extensive review of the literature and to the best of our knowledge, this is the eighth case of S. bovis bacteremia associated with pancreatic carcinoma. S. bovis is associated with a myriad of systemic infections (e.g., infective endocarditis, meningitis, osteomyelitis, cholangitis, spontaneous bacterial peritonitis), inflammatory bowel disease, diverticulosis, and malignancies within the gastrointestinal, gynecological, and hematopoietic systems. In 1951, the first case of S. bovis was reported in a patient who underwent sigmoid adenocarcinoma resection and developed infective endocarditis. Proposed pathophysiological mechanisms include S. bovis’ ability to cause cytokine-dependant inflammation, utilize advanced adhesion properties, act as paraneoplastic promoter, and induce uncontrolled cellular proliferation. A retrospective study of 45 patients with S. bovis bacteremia concluded only 41% patients underwent colonoscopy. Of those, 39% had colon cancer, 7% had invasive colorectal carcinoma, eight patients had malignant lesions within the GI tract, and five patients had extraintestinal malignancies. This is a rare case of pancreatic cancer presenting with S. bovis subtype II/1 bacteremia.

Methods: N/A
Results: N/A
Conclusion: N/A

G. Clinical Vignettes/Case Reports
C. Pancreatic/Biliary
Poster Only
No
No
Investigator
No
Investigator
ACG Non-Member
ACG Non-Member
ACG Member
ACG Non-Member

AUTH DESIG: ACG Membership Status <font color="red">*</font>:</font>
Izabela Postacchini : ACG Non-Member
Mark Postacchini : ACG Non-Member
Baseer Qazi : ACG Member

AVERAGE SCORE: 2.33
Purpose: Background: Urgent ERCP for patients admitted with acute ascending cholangitis to the intensive care unit (ICU) may be delayed by the availability of fluoroscopy, anesthesia support, or an operating room (OR).
Aims: To study 1) the feasibility of urgent bedside ERCP without fluoroscopy in critically ill patients with suspected acute ascending cholangitis; and 2) the clinical and endoscopic outcomes of such patients who underwent urgent bedside ERCP in the ICU without fluoroscopy at our institution.

Methods: Retrospective case series at a single tertiary academic medical center from December 2007 to June 2012.
Inclusion criteria: adult patients with suspected acute ascending cholangitis; bedside ERCP in the intensive care unit.
Exclusion criteria: use of fluoroscopy; patients who had the index ERCP in the endoscopy unit or operating room. The medical record was reviewed and demographic, clinical, and endoscopic data were collected.

Results: Eight patients were identified. Demographics: mean age 67 (range: 38-100; SD±20.4); 75% male. Clinical characteristics: GI bleeding and hemobilia was an additional indication in 50%; organ failure was present in 50% and septic shock and use of vasopressor medications in 25%. Endoscopic outcomes: ERCP with endoscopic stent placement was therapeutically successful in five of six (83%) patients with normal anatomy but failed in the two patients with surgically altered anatomy. Endoscopic hemostasis was successful in three out of four (75%) patients with bleeding. Cannulation of the bile duct without fluoroscopy was facilitated by previous sphincterotomy in three patients. Rescue ERCP with fluoroscopic support was required in one patient and was successful. No patient required rescue percutaneous or surgical intervention. Clinical outcomes: of the five eligible patients, none underwent cholecystectomy due to comorbidities. There was no post-ERCP acute pancreatitis or other procedure-related morbidity in the patients who underwent successful bedside ERCP in the ICU; 7-day mortality was zero and all patients were discharged from hospital.

Conclusion: Urgent bedside ERCP with stent placement without fluoroscopy in the ICU is a feasible and effective option in patients with suspected acute ascending cholangitis, particularly in those with a previous sphincterotomy. ERCP without fluoroscopic support may not be feasible in patients with altered anatomy.
Gerard Isenberg : ACG Member
John Dumot : ACG Member
Amitabh Chak : ACG Member
(No Image Selected)
(no table selected)

AVERAGE SCORE: 4
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None

REVIEWER COMMENTS:
David Hass: [No Comments] Charlene Le Pane: [No Comments] Renee Young: [No Comments] Rowen Zetterman: [No Comments]
Purpose: Background: The ACG/ASGE Quality in Endoscopy Taskforce recognizes that adverse events are inherent in the performance of ERCP and calls for continuous quality improvement in ERCP programs. Sphincterotomy, a part of the ERCP core curriculum for trainees, may be associated with bleeding complications. Aims: To study factors associated with post-sphincterotomy bleeding (PSB) during advanced endoscopy fellowship training.

Methods: Retrospective case series at a tertiary academic center. Patients who underwent ERCP in the academic year 2011-2012 were identified. Cases complicated by PSB were included. Clinical and endoscopic variables were collected. Factors associated with bleeding were explored.

Results: Three hundred and fifty ERCP procedures were reviewed. Eleven PSB cases were identified. Demographics: 64% female; mean age 63; 73% inpatients. Clinical characteristics: jaundice was the most frequent indication (45%); coagulopathy was present in 27%; 55% were on antiplatelet and/or anticoagulant agents; 27% required ICU stay; rebleeding occurred in two patients (18%); mean number of packed red blood cell units transfused was two; mean hospital stay was 6 days. Technical characteristics: pre-cut needle knife sphincterotomy was performed in 45%; a trainee participated in 91% of PSB cases and in 100% of bleeding cases involving a needle knife; 73% of bleeding cases occurred in the first 6 months of the academic year; immediate bleeding occurred in 55%. Initial endoscopic hemostasis was successful in all cases, and involved epinephrine injection monotherapy in 4 of 11 patients (36%); epinephrine injection and heater probe therapy in four patients (36%); epinephrine injection and clip placement in one patient (9%); and triple combination therapy with epinephrine injection, heater probe, and clip placement in two patients (18%). One of two patients with rebleeding was treated with epinephrine injection and heater probe therapy, and the other patient with epinephrine injection, heater probe, and clip placement. Rescue IR intervention was required in one patient but failed. Hemostasis was achieved on third endoscopy with temporary biliary stent placement. Biliary cannulation and therapeutic ERCP intervention was successful in 100%.

Conclusion: The performance of pre-cut needle knife sphincterotomy was a frequent technical factor in post-sphincterotomy bleeding during 1 year of advanced endoscopy training. This technique remains a high-risk procedure. The use of needle knife sphincterotomy by trainees warrants careful monitoring and the development of effective training methods to teach this technique.

Methods: N/A

Results: N/A

Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports

CURRENT SUB-CATEGORY: C. Pancreatic/Biliary

PRESENTATION TYPE: Poster Only

ACG Research Grant Support: No

Supported by Industry Grant: No

Commercial Products or Services: No

Initiated Research: Investigator

Financial Relationships: Not Applicable

FDA Approval: No

Designed Study: Investigator

Abstract Author: Investigator

AUTH DESIG: ACG Membership Status <font color="red">*</font>:

Constantinos Anastassiades : ACG Member
Aditi Saxena : ACG Member
Wajeed Salah: ACG Member
Ashley Faulx: ACG Member
Gerard Isenberg: ACG Member
John Dumot: ACG Member
Richard Wong: ACG Member
Amitabh Chak: ACG Member
(No Image Selected)
(no table selected)

AVERAGE SCORE: 4.33
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None

REVIEWER COMMENTS:
David Hass: [No Comments]
Charlene Le Pane: [No Comments]
Renee Young: [No Comments]
Rowen Zetterman: [No Comments]
Purpose: Introduction: Vascular complications of recurrent acute or chronic alcoholic pancreatitis are well-known, including extrahepatic portal venous system thrombosis (EPVST), which occurs at a rate of approximately 13% in this population. The splenic vein is the most commonly affected site in these vascular complications, with the portal and superior mesenteric veins being less common. Prognosis of patients with EPVST depends on early diagnosis and prompt treatment with anticoagulation. Here we present two cases of patients presenting with EPVST, one in the portal vein and one in the splenic vein, illustrating the manifestations and the course of these important clinical entities.

Case 1: A 48-year-old, alcoholic, HIV-positive male presented with epigastric pain, severe epigastric tenderness, and nausea. He had a history of admissions for acute alcoholic pancreatitis. Initial bloodwork showed evidence of hemoconcentration with elevated amylase and lipase levels suggestive of acute pancreatitis. Abdominal CT scan showed pancreatic inflammation with portal vein thrombosis (Figure 1). The patient was started on therapeutic anticoagulation and treated with aggressive fluid hydration with pain management. The patient improved symptomatically and repeat CT scan 8 weeks later showed resolution of portal vein thrombosis.

Case 2: A 37-year-old alcoholic male with multiple past admissions for recurrent pancreatitis presented with epigastric pain, mild epigastric tenderness, nausea, and vomiting for 2 days. Initial labs showed minimal elevations in pancreatic enzyme levels. Abdominal CT scan revealed pancreatic inflammation and calcification with splenic and right common iliac vein thrombosis (Figure 2). Therapeutic anticoagulation was started with significant improvement in the patient’s clinical condition.

Conclusion: Despite being a well-known complication of recurrent acute or chronic alcoholic pancreatitis, the exact mechanism(s) causing venous thrombosis in this patient population is unclear. Venous stasis, spasm, and mass effects from inflamed pancreas are three of the possible causes. Prompt treatment with therapeutic anticoagulation is essential to prevent complications such as chronic portal vein thrombosis, portal venous hypertension, mesenteric ischemia, and infarction. The optimal duration of anticoagulation remains unknown and warrants further study.

AUTH DESIG: ACG Membership Status <font color="red">*</font>:
Viral Patel : ACG Non-Member
Jalpaben Patel : ACG Non-Member
Mojgan Afshari : ACG Non-Member
Kelly Cervellione : ACG Non-Member
Asit Mehta : ACG Non-Member
Title: Obstructive Jaundice as the Initial Manifestation of Hodgkin’s Lymphoma

Purpose: Case Report: A 61-year-old man presented with 3 weeks of painless jaundice along with non-bilious, non-bloody vomiting. There was no fever, weight loss, altered bowel habit, or bleeding in stools. His exam was positive for scleral icterus and bilateral axillary and inguinal lymphadenopathy.

Labs were: WBC 15k/µL, platelet 630k/µL, hemoglobin 14 g/dL, total bilirubin 9.4 mg/dL, indirect bilirubin 2.5 mg/dL, ALP 816 U/L, AST 88 U/L, ALT 65 U/L, GGT 188 U/L, and normal creatinine. CT abdomen was done, which showed multiple moderately enlarged peri-aortocaval, periportal, mesenteric, bilateral iliac chain, and inguinal nodes concerning for lymphoma. The periportal lymphadenopathy at the hepatic hilum caused extrinsic CBD obstruction with moderate intrahepatic and extrahepatic biliary dilatation. An ERCP attempt to place stent and get biopsies failed. An axillary lymph node biopsy showed multiple Reed-Sternberg cells against a background of small lymphocytes and occasional histiocytes with morphologic features of the nodular sclerosis subtype of classical Hodgkin lymphoma. Immunohistochemical stains confirmed a diagnosis of Hodgkin lymphoma. Patient was managed with steroids and cyclophosphamide due to hyperbilirubinemia with regression of tumor load and improvement in LFTs. He did not require a PTC to relieve the obstruction.

Discussion: Hodgkin lymphoma (HL) accounts for approximately 10% of all lymphomas and approximately 0.6% of all cancers diagnosed in the developed world annually. Hodgkin lymphoma can present with asymptomatic lymphadenopathy or with systemic symptoms including fever, night sweats, and weight loss. Jaundice is rarely a presenting symptom for Hodgkin lymphoma. Hodgkin lymphoma can cause jaundice due to autoimmune hemolytic anemia, liver infiltration, CBD obstruction, paraneoplastic cholestasis, and vanishing bile duct syndrome. CBD obstruction is more commonly seen with non-Hodgkin lymphoma than with Hodgkin lymphoma. ERCP-guided stenting is useful in cases of compression due to mass effect but may not be possible in all cases. Although with hepatic failure chemotherapy may be challenging to dose but still is recommended as it can lead to regression of mass and improvement of liver function as seen in this patient.

Methods: N/A
Results: N/A
Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Poster Only
ACG Research Grant Support: No
Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: Not Applicable
FDA Approval: No
Designed Study: Investigator
Abstract Author: Investigator

AUTH DESIG: ACG Membership Status:
Sweta Kochhar : ACG Member
Meghana Bansal : ACG Non-Member
Abhishek Agarwal : ACG Non-Member
(No Image Selected)
(no table selected)

AVERAGE SCORE: 4
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None

REVIEWER COMMENTS:
David Hass: [No Comments] Charlene Le Pane: [No Comments] Renee Young: [No Comments] Rowen Zetterman: [No Comments]
Purpose: Case Report: A 42-year-old woman presented with a 6-month history of epigastric pain. The pain was described as dull, deep, intermittent, non-radiating, and aggravated with food intake. She denied any dysphagia, weight loss, or change in bowel habits. She had a history of hypertension and denied alcohol use. On examination she was afebrile and hemodynamically stable. General examination did not reveal any pallor, icterus, edema, or lymphadenopathy. Abdomen was soft, non-tender, and without any obvious masses or clinical evidence of free fluid. Laboratory investigations showed normal electrolytes and creatinine. Liver profile, amylase, and lipase were also normal. An EGD revealed few columns of esophageal varices with normal stomach and CLO test was negative. A CT scan demonstrated a 3.7 x 5.1 cm soft tissue mass in the region of the hepatic hilum and pancreatic head with diffuse peribiliary enhancement. The mass encased right hepatic artery. Thrombosis of portal and splenic vein was also noted. The mass was re-identified on an endosonogram and was found to be highly vascular. Celiac and aortopulmonary nodes appeared normal. Two attempted FNA were non-diagnostic. The patient underwent a laparotomy which revealed a spongy mass that could not be excised due to close proximity to major vascular structures. Biopsies obtained resulted in brisk venous bleeding. Histological analysis showed both thick- and thin-walled vascular structures of different sizes. No pancreatic tissue was identified in the specimen as confirmed by lack of staining for cytokeratin on immunohistochemistry. Positive staining with smooth muscle actin and lack of receptors for D 240 confirmed presence of blood vessels without lymphatics. Hence, a diagnosis of pancreatic arteriovenous malformation (AVM) was made.

Discussion: Pancreatic AVM is a rare entity which can be congenital or acquired. Most patients remain asymptomatic, but some have abdominal pain or repeated gastrointestinal bleeding. Advances in imaging and the use of angiography have resulted in precise diagnosis of this condition. The most frequently involved region is the head, followed by the body and tail. Pancreatic AVM can grow enough to even cause portal hypertension. Management can be challenging. Complete surgical resection is desirable but not always possible and presence of multiple feeding arteries makes embolization tough, like in our patient. Therefore, it is important to diagnose this condition at an early stage before portal hypertension develops so that definitive treatment can be offered.

Methods: N/A
Results: N/A
Conclusion: N/A
(no table selected)

**AVERAGE SCORE:** 4.33

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**
- David Hass: [No Comments]
- Charlene Le Pane: [No Comments]
- Renee Young: [No Comments]
- Rowen Zetterman: [No Comments]
Purpose: Background: Sclerosing cholangitis is a chronic progressive inflammation of medium and large bile ducts both intra- and extrahepatic, resulting in permanent fibrosis and stricture of biliary tree. Primary sclerosing cholangitis (PSC) is known to complicate patients with inflammatory bowel disease; however, it is idiopathic in 50-90% of cases. On the opposite side, secondary sclerosing cholangitis (SSC) is always associated with specific etiology such as chronic pancreatitis, AIDS-related cholangiopathy, intraductal stones, etc.

Case: We report a 69-year-old female with history of recurrent uterine papillary serous carcinoma with metastatic carcinomatosis status post-three cycles of chemotherapy consisting of carboplatin and paclitaxel, who presented to our hospital with painless progressive jaundice. Laboratory work-up revealed a total bilirubin of 7.1 mg/dL, direct bilirubin of 4.4 mg/dL, alkaline phosphatase of 527 units/L, aspartate transaminase of 248 units/L, and alanine transaminase of 458 units/L. Serum and urine electrophoresis revealed no hypergammaglobulinemia, and both P-ANCA and C-ANCA were negative. Abdominal ultrasound and computerized tomography scan showed dilated intrahepatic biliary system without stones or masses. Endoscopic retrograde cholangiopancreatography was subsequently performed which revealed multiple intrahepatic segmental strictures and dilations consistent with sclerosing cholangitis (Image 1). The patient did not have any history of inflammatory bowel disease. Considering the absence of other risk factors of PSB along with the recent history of chemotherapy, the diagnosis of chemotherapy-induced SSC was rendered.

Discussion: SSC is a known complication of intrahepatic arterial infusion of chemotherapy such as 5-fluorouracil, flouxuridine, and mitomycin C. Yet, only one case of SSC from intravenous chemotherapy has been reported in the literature. We believe that chemotherapy-induced ischemia of biliary tract is the possible cause of SSC in this patient.

Methods: N/A
Results: N/A
Conclusion: N/A

AUTH DESIG: ACG Membership Status <font color="red">^</font>:
Hussein Al-hamid : ACG Non-Member
Wuttiporn Manatsathit : ACG Non-Member
David Sosnoff : ACG Non-Member
Mohamed Barawi : ACG Non-Member

(Image 1) Endoscopic retrograde cholangiopancreatography demonstrating multiple intrahepatic segmental strictures and dilations.

IMAGE CAPTION: (Image 1) Endoscopic retrograde cholangiopancreatography demonstrating multiple intrahepatic segmental strictures and dilations.

AVERAGE SCORE: 4
Purpose: Acute pancreatitis is uncommon in systemic lupus erythematosus (SLE). Pancreatitis in SLE patients may be secondary to common causes like alcohol and gallstones, but may also be associated with active SLE inflammation. When recognized early and properly treated with IV steroids and hydration, the clinical course may be benign, as exemplified in the following report. A 21-year-old woman with history of SLE and stage IV lupus nephritis, treated with 10 mg of daily oral prednisone and IV cyclophosphamide pulsed doses every 6 months, was admitted to the Sergio Bernales National Hospital ICU (Lima, Peru), complaining of worsening epigastric pain radiating to the back, nausea, and bilious vomiting for 1 week. She denied prior cholelithiasis, alcohol use, or recent medication changes. Her last dose of cyclophosphamide was 6 months prior to presentation. On examination, the patient was tachycardic with heart rate of 110 per minute and normotensive. Her abdomen was slightly distended; the epigastrium was tender to deep palpation without signs of peritoneal irritation. Laboratory results demonstrated 20,870 white blood cells/mL (92% segmented, 1% bands), creatinine of 2.26 mg/dL, amylase of 750 U/L, lipase of 1038 U/L, decreased complement C3 and C4 and elevated dsDNA antibody. Liver chemistries, calcium, lactic acid, triglycerides, and IgG4 were normal with an undetectable alcohol level. Ultrasound did not show cholelithiasis, CBD dilation, or biliary sludge; CT of the abdomen showed pancreas head stranding with uniform enhancement, consistent with inflammation and interstitial pancreatitis. Despite supportive treatment with NPO, IV fluids, opiates, and anti-emetics, her clinical condition deteriorated, prompting the use of IV methylprednisolone. Clinical symptoms rapidly improved and pancreatic enzymes began to decrease on the subsequent day. She completed 1 week of IV steroids and then was transferred to the medical floor with plan to complete an oral steroid taper. She was discharged with complete resolution of symptoms and biochemistries at 2 weeks. A variety of explanations have been proposed for the mechanisms of steroid benefit in the treatment of SLE pancreatitis; recent series suggest vasculitis, anti-pancreatic antibodies, and T-cell infiltration are at play. The astute clinician should be aware of the entity of SLE-pancreatitis and the utility of steroids in its resolution.

Methods: N/A
Results: N/A
Conclusion: N/A
Uncommon Cause of Acute Pancreatitis in Pregnancy

Anjana Sathyamurthy

University of Missouri Columbia, Department of Internal Medicine

Acute pancreatitis (AP) is rare in pregnancy. We describe a case of a patient who presented with AP that quickly resolved after delivery of the fetus.

Case Summary: A 31-year-old G2P1 patient with a history of cholelithiasis, status post-cholecystectomy, and recurrent acute pancreatitis, status post-ERCP with sphincterotomy, presented to the hospital during her 36th week of pregnancy with a 4-day history of boring left upper quadrant abdominal pain, with radiation to her back that was exacerbated by eating and associated with nausea and loose, foul-smelling stools. Her history was negative for use of over-the-counter and herbal medicines, abdominal trauma, smoking, alcohol consumption, or a family history of pancreatitis. Physical exam revealed a non-tender gravid abdomen. Admission labs were notable for amylase 291 U/L, lipase 794 U/L, alkaline phosphatase 149 U/L, and WBC count 14.2 K/mL. Abdominal ultrasound demonstrated a common bile duct width of 2-3 mm and no intrahepatic biliary dilation. MRCP showed a new, slight, focal dilation of the pancreatic duct in the pancreatic tail region, which was also seen 6 weeks later on endoscopic ultrasound. She was managed with IV fluids and bowel rest. Her symptoms improved, but with every oral challenge she became symptomatic again and her amylase and lipase increased. Because she had essentially not eaten since admission and her obstetrician felt that delivery would be safe, the patient underwent C-section 7 days into her hospitalization. Shortly following delivery, the patient's symptoms resolved and her amylase and lipase rapidly approached normal limits.

Discussion: Acute pancreatitis (AP) is rare during pregnancy and usually due to gallstones, alcohol consumption, hypertriglyceridemia, or idiopathic. The clinical presentation of AP is the same for both pregnant and non-pregnant patients. Management is the same as well, which includes bowel rest, IV fluids, and treatment of the underlying cause if one exists. Our patient presented with AP of unknown etiology during her 36th week of pregnancy. Her symptoms resolved and her amylase and lipase levels decreased when she was NPO; however, her abdominal pain returned and her pancreatic enzyme levels quickly increased each time her diet was restarted. The patient became asymptomatic and her lab abnormalities abated following delivery of the fetus, which suggests that extrinsic compression of the pancreatic duct by the gravid uterus may have triggered her bout of AP.

Methods: N/A
Results: N/A
Conclusion: N/A
AVERAGE SCORE: 4.67
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
David Hass: [No Comments] | Charlene Le Pane: [No Comments] | Renee Young: [No Comments] | Rowen Zetterman: [No Comments]
We report a case of diverticular and splenic abscess in a 51y.o. Male presenting with left sided chest pain and hemoptysis.

Case:
51-year-old Caucasian male with a history of alcoholism and diverticulitis presented to the hospital with complaints of left sided chest pain and cough for 4-5 days duration. He had one day history of hemoptysis as well. CT chest(fig.1) showed a large splenic abscess centered in the splenic parenchyma with subphrenic extension. Also visualized was a left pleural effusion which appeared directly contiguous with the abscess. CT abdomen showed a large pericolonic abscess secondary to diverticulitis. Physical exam showed the patient to be afebrile with stable vital signs, tender left upper quadrant, and coarse breath sounds in left lower lobe. Initial labs were essentially within normal limits.

Discussion
Splenic abscess is a rare entity with frequency of 0.14-0.7% in autopsy series. It may lead to life-threatening hemorrhage, erosion into hilar vessels, rupture into the peritoneal cavity, leading to diffuse peritonitis. Clinical manifestations may include left upper quadrant abdominal pain, fever, nausea, vomiting and anorexia. Our patient presented with chief complaint of left sided chest pain and hemoptysis leading our initial differential towards cardiopulmonary etiology. Diagnosis was made when imaging studies were performed. Therefore this case suggests that clinical presentation for splenic abscess can be nonspecific.

Diverse etiologies have been discussed in literature which includes infective endocarditis with systemic embolization. Also, hematogenous spread from infective focus elsewhere in the body such as pancreatitis, diverticulitis, retroperitoneal and subphrenic abscess. In this case, we suspect splenic abscess resulting from hematogenous spread from antecedent diverticulitis.

Our patient initially had percutaneous drainage placed but due to clinical deterioration, splenectomy was performed. Due to narrow therapeutic window and high mortality with delayed treatment, we hope to bring this rare entity to the attention of most clinicians.

Methods: N/A
Results: N/A
Conclusion: N/A
Shyamal Bose : ACG Member

Fig 1

**IMAGE CAPTION:** Fig 1
(no table selected)

**AVERAGE SCORE:** 4

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**
David Hass: [No Comments] Charlene Le Pane: [No Comments] Renee Young: [No Comments] Rowen Zetterman: [No Comments]
Ampullary Neuroendocrine Tumor: A Rare Cause of Recurrent Abdominal Pain

Preparer (Institution Only): Harbor Hospital
Preparer (Country Only): United States

Purpose: Ampullary neuroendocrine tumor (ANET) is a rare GI malignancy, representing less than 1% of GI neuroendocrine tumors and less than 2% of ampullary tumors. 139 ANET cases have been reported in the SEER database. Our Patient: A 21-year-old Vietnamese man complained of 6 years of non-specific, intermittent upper abdominal pain. Physical examination revealed mild epigastric and right upper quadrant tenderness. Laboratory evaluation was normal, including liver function tests and pancreatic enzymes. An EGD revealed a nodular ampullary mass with normal overlying mucosa. Mucosal biopsies were normal. EUS revealed a 1.5 cm hypechoic heterogeneous ampullary mass and FNA revealed cells containing uniform, rounded nuclei with speckled chromatin consistent with a well-differentiated neuroendocrine tumor. Radiographic imaging for metastatic disease was unremarkable, and serum chromogranin A, gastrin, 24-hour urine HIAA levels were normal. Conventional treatment often is a pancreaticoduodenectomy, however, in this case a transduodenal ampullectomy was performed. Pathology confirmed a well-differentiated neuroendocrine tumor (WHO grade 1) with clear 2 mm margins, without lymphovascular or perinueral invasion. Further characterization psammoma calcifications, positive immunoreactivity for somatostatin, CD8/18, chromogranin A, synaptophysin, and focal positivity of s100 and Ki67 (<1%). Of note, the sample was negative for c-KIT, gastrin, CD34 and CD68. The patient’s recovery was uneventful and he is symptom and disease free at 18 months. Discussion: ANET are rare tumors and only one-quarter of such patients present with abdominal discomfort. Because ANET are rare, biological behavior and prognosis is controversial. Traditional treatment is often a pancreaticoduodenectomy; however local and endoscopic resections have been successful. Conclusion: ANET are a rare cause of recurrent abdominal pain, and local exision of small ANETs can be an alternative, less morbid treatment for young patients.

Methods: n/a

Results: n/a

Conclusion: n/a

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary

Presentations Type: Poster Only

ACG Research Grant Support: No

Supported by Industry Grant: No

Commercial Products or Services: No

Initiated Research: Investigator

Financial Relationships: No

FDA Approval: No

Designed Study: Investigator

Abstract Author: Investigator

AUTH DE SIG: ACG Membership Status <font color="red">*"</font>: Andrew Ofosu : ACG Non-Member
Armando Sardi : ACG Non-Member
Lakshmi Potakamuri : ACG Non-Member
Lisa Turnbough : ACG Non-Member
Sanjay Jagannath : ACG Member

Image Caption:
(no table selected)

Average Score: 3.33

Reviewer Flags: (none)

Reviewer Recommendation Code Description: None
REVIEWER COMMENTS:
David Hass: [No Comments] Charlene Le Pane: [No Comments] Renee Young: [No Comments] Rowen Zetterman: [No Comments]
ABSTRACT BODY:

Purpose: 72 year old woman with past history of laparoscopic cholecystectomy 10 years ago presented with a 6 month history of intermittent right upper quadrant abdominal and flank pain without association with food intake. She denied fever and weight loss. Physical examination revealed erythema and tenderness in the right lateral aspect of the upper abdomen. Labs were unremarkable. Computed tomography (CT) of the abdomen showed a complex 21x5.8x8.8cm perihepatic fluid collection with internal septations, which fistulized through the abdominal wall and formed a 5.6x2 cm subcutaneous fluid collection in the right flank. HIDA scan and MRCP ruled out bile leak. Ultrasound guided drainage of the abscess drained thick, greenish fluid. The patient was empirically started on ceftriaxone and metronidazole. Bacterial and fungal cultures as well as PPD, echinococcus and entamoeba serology were all negative. Cytology revealed proteinaceous material with few inflammatory cells and many degenerated structures, suspicious for, yet not definitive of, echinococcus cyst. Patient received a 6 week course of albendazole and PAIR procedure (puncture, aspiration, injection and re-aspiration) was performed with no improvement in symptoms. Repeat CT scan showed persistence of the abscess. An exploratory laparotomy was performed with 500ml of fluid drained and evacuated twenty eight gallstones, confirmed by pathology, from the cavity. The fluid cultures were again negative. Repeat CT scan performed a month after the surgery showed near complete resolution of the abscess.

Gallbladder perforation during laparoscopy cholecystectomy can result in spillage of gallstones into the peritoneal cavity, which may lead to the development of intra-abdominal abscesses that are easily misidentified as tumors or parasitic infections on radiography due to their similar appearance. The rarity and chronicity of this problem makes the diagnosis very challenging. Treatment requires exploratory laparotomy to remove all dropped gallstones. Less invasive procedures such as percutaneous drainage are effective for resolving acute symptoms, but allow recurrence of abscess. Most patients get a short course of antibiotics based on fluid cultures that typically reveal E. coli, Klebsiella pneumoniae and Enterococcus. Interestingly, in our patient, the cultures were negative, suggesting that the development of the abscess was secondary to foreign body reaction to the dropped gallstones. Our case illustrates the importance of considering dropped gallstones in the differential diagnosis of intra- or extraperitoneal abscesses in any patient with a history of laparoscopic cholecystectomy, regardless of the time elapsed since surgery.

Methods: N/A

Results: N/A

Conclusion: N/A
AVERAGE SCORE: 2.33
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
David Hass: [No Comments]
Charlene Le Pane: [No Comments]
Renee Young: [No Comments]
Rowen Zetterman: [No Comments]
ABSTRACT BODY:

Purpose: A 49-year old man presented with dark urine, epigastric discomfort & 20 pounds weight loss in three months. Past medical & family history was unremarkable. He denied alcohol use. On examination, he was afebrile & hemodynamically stable, but was diffusely jaundiced with moderate epigastric tenderness. Total bilirubin/direct bilirubin 29.3/15 mg/dL, AST/ALT 341/311 U/L, alkaline phosphatase/GGT 1928/944 IU/L, CA-19-9 >1500. Ultrasound revealed a 20 mm Common Bile Duct (CBD) & gallbladder sludge. A Computed Tomography (CT) revealed severe dilation of intra & extrahepatic bile ducts with tapering into the head of pancreas (HOP), mild prominence of the HOP without obvious mass lesions. Differential diagnosis of malignancy, autoimmune pancreatitis/cholangiopathy were considered.

Endoscopic ultrasound (EUS) revealed dilated CBD (19 mm); dilated cystic duct (CD) 10 mm with low insertion. A single, round, hyperechoic defect (15mm) with acoustic shadowing was noted in the distal CD causing extrinsic compression of the CBD at the level of HOP without any evidence of HOP mass lesion. Endoscopic retrograde cholangiopancreatography (ERCP) revealed non-dilated pancreatic duct, 15mm oval filling defect in the CD causing distal CBD compression. After a biliary sphincterotomy & selective cannulation of CD, a large stone was removed using a basket. Post-procedure there was a significant improvement in liver function tests, CA 19-9 down-trended & eventually normalized in six weeks.

Discussion: Obstructive jaundice, weight loss & high levels of CA 19-9 along with radiologic findings of CBD narrowing are highly suggestive of pancreaticobiliary malignancy. However, benign disorders such as cholelithiasis, choledocholithiasis & autoimmune process should be considered in the differential diagnosis. This case represents typical presentation of Mirrizzi’s syndrome Type 1B. EUS is a valuable tool for accurate diagnosis of distal biliary pathology. ERCP with stone extraction from the cystic duct is safe & effective. Elevated levels of CA 19-9 usually point to a neoplastic phenomenon, however one must thoroughly rule out benign causes.

Methods: N/A
Results: N/A
Conclusion: N/A
REVIEWER RECOMMENDATION CODE DESCRIPTION: None

REVIEWER COMMENTS:
David Hass: [No Comments]|Charlene Le Pane: [No Comments]|Renee Young: [No Comments]|Rowen Zetterman: [No Comments]
Purpose: A 54-year-old man was referred to our outpatient gastroenterology clinic for several weeks of upper abdominal pain. He had a history of acid reflux and Barrett’s esophagus, but his symptoms were well-controlled on a proton pump inhibitor. For three weeks prior to presentation, he experienced dull epigastric abdominal pain that was at times severe. The pain did not radiate to the back and had no definite relation to food. His weight was stable, and he had not experienced similar symptoms in the past. There was no change in bowel habits. History revealed that he consumed 3-4 alcoholic drinks a night. Physical exam was notable for a well-appearing man with a benign abdomen. There was no epigastric tenderness to palpation, scleral icterus, hepatosplenomegaly, or jaundice. Blood studies, including liver function tests, were normal except for a minimally elevated lipase of 59 U/L. Abdominal ultrasound revealed fatty infiltration of the liver. An esophagogastroduodenoscopy (EGD) was then performed and notable for erythema and edema of the duodenal bulb. The remainder of the examination was unremarkable. A subsequent computed tomography (CT) scan of the abdomen displayed inflammation of the pancreaticoduodenal groove with associated ill-defined appearance of the head of the pancreas. The patient’s abdominal pain was attributed to groove pancreatitis. His symptoms improved with conservative management and cessation of alcohol use.

First described in Germany in 1973, groove pancreatitis is a chronic pancreatitis that affects the region between the pancreatic head, duodenum, and common bile duct (CBD), also known as the groove area. The exact incidence of this condition is unknown, but most patients with groove pancreatitis are men aged between 40-50 years with a history of alcohol abuse. The pathogenesis is also unclear, but it has been postulated that duodenal stenosis, obstruction of the minor papilla, and Brunner’s gland hypertrophy may play a role. Clinical presentation and laboratory findings are similar to chronic pancreatitis, but nausea, vomiting, and weight loss are often more severe in groove pancreatitis. Prognosis varies widely. Conservative measures such as cessation of alcohol, initiation of pain control, and pancreatic rest can lead to resolution of symptoms. Surgery, however, may be required in the set of patients who fail to improve. Additionally, distinguishing between groove pancreatitis and adenocarcinoma of the head of the pancreas or autoimmune pancreatitis may be problematic. Clinicians must thus be aware of this disease entity since surgery can be curative. In patients who do not undergo surgical resection, close follow-up is necessary.
AVERAGE SCORE: 3.33
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
David Hass: [No Comments]
Charlene Le Pane: [No Comments]
Renee Young: [No Comments]
Rowen Zetterman: [No Comments]
Purpose: Introduction

Bilomas are formed either spontaneously or secondary to trauma, surgical, percutaneous or endoscopic procedures. A subcapsular hepatic biloma is a rare complication, and typically related to surgery or trauma.

Case description

This is a 74-year-old male with a history of cryptogenic cirrhosis and end-stage renal disease status post liver and kidney transplantation in 2001 complicated with a 3 mm anastomotic stricture and recurrent choledocholithiasis. This required multiple ERCPs since transplantation. The patient was doing well until October 2012, when choledocholithiasis was noted incidentally on a CT scan of the chest. An elective ERCP was performed, and showed multiple stones (largest 1.5 cm) in the distal CBD and one large stone (4 cm x 2.5 cm) in the proximal CBD. The distal stones were extracted, and the proximal one was unable to be removed. Six weeks later, a repeat ERCP was done with removal of multiple stones and stone fragments from the distal bile duct. Spyglass cholangioscopy with electrohydraulic lithotripsy (EHL) was utilized and partially fragmented the stone. Multiple stone fragments were subsequently removed using a 15-18-20 mm Olympus balloon. A repeat ERCP done 7 weeks later demonstrated the large filling defect proximal to the anastomosis was still present. Spyglass cholangioscopy with EHL was performed with successful fragmentation of the large stone. During EHL, extensive saline irrigation was needed to clear the cholangioscopic view and multiple stones and stone fragments were completely removed using a retrieval balloon. After the procedure, the patient complained of right upper quadrant pain radiating to the back. Laboratory tests revealed no abnormalities in liver, biochemistry or pancreatic enzymes and no evidence of perforation on acute abdominal series. A CT scan of the abdomen revealed subcapsular biloma (5.2 x 4.2 cm) containing a focus of air, along the posterior right hepatic dome. The patient was treated conservatively and improved.

Discussion

A biloma typically develops in the area directly related to intervention in an ERCP. In this case, the subcapsular biloma formed in the posterior right hepatic dome.

We believe the subcapsular biloma formed as a result of perforation of a small biliary duct due to the increased pressure from the area of treatment (proximal CBD). The high pressure in the proximal CBD arose from two sources, the electrohydraulic lithotripsy and also the injection of the saline/contrast through the catheter. This in turn led to rupture of a distal biliary ductule due to transmission of the high pressure to the biliary system.

Methods: N/A

Results: N/A

Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Oral or Poster
ACG Research Grant Support: No
Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: Not Applicable
FDA Approval: No
Designed Study: Investigator
Abstract Author: Investigator

AUTH DESIG: ACG Membership Status <font color="red">*</font>:
Abdallah Kobeissy : ACG Member
Rishi Sharma: ACG Non-Member
Osama Alaradi: ACG Member
(No Image Selected)
(no table selected)

**AVERAGE SCORE:** 4.67

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**

David Hass: [No Comments] | Charlene Le Pane: [No Comments] | Renee Young: [No Comments] | Rowen Zetterman: [No Comments]
 Purpose: A 23-year-old man with no other medical problems presented to the emergency room with sudden onset abdominal pain associated with nausea for 1 day. Patient had a temperature of 101.5 F, tachycardia. On physical exam, patient had right upper quadrant tenderness. Patient had abnormal Liver function tests and lipase of 2865 u/l. Patient had an ultrasound which showed complex cystic mass in the liver and sludge in the gall bladder and common bile duct. Patient was admitted to the hospital, treated conservatively with intravenous fluids, bowel rest and pain control. Further history was obtained from the patient; patient was born and brought up on a farm in Argentina. Patient moved to United States at the age of 8 yrs. Patient had an MRI done which showed a complex cystic mass consistent with hydatid cyst which communicated with biliary radicles (Figure 1). Patient had a negative MRI of the head. Patient was treated with two courses of mebendazole without any result. Patient was referred to a surgeon. He had an exploratory laparotomy with cyst excision and imbrication. Patient did well post surgery and did not have a recurrence. Hydatid cyst is caused by Echinococcus granulosus. It is common in sheep rearing countries in Asia, South America and Europe. Most common presentation in this condition is abdominal pain. Other presentations include jaundice, nausea and abdominal pain. Rare cases of acute pancreatitis due to hydatid cyst have been reported, mostly secondary to primary cysts in the pancreatic head. Other causes for acute pancreatitis (<1%) could be secondary to rupture of the cyst into the biliary duct or due to development of communicating radicles between the cyst and biliary tree. Patients are usually treated with benzoimidazole carbonates. Most patients are treated with external drainage and cystectomy. Few studies have demonstrated safety and efficacy of modern techniques such as laparoscopy and transcystaneous puncture under US guidance (PAIR technique).
AVERAGE SCORE: 4
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
David Hass: [No Comments] Charlene Le Pane: [No Comments] Renee Young: [No Comments] Rowen Zetterman: [No Comments]
An interesting case of Cholangiocarcinoma masquerading as Bile Duct Stones.

Mandeep Singh

Albany Medical Center

United States

Purpose: Cholangiocarcinoma presents a formidable diagnostic and treatment challenge. The majority of patients present with unresectable disease and have a survival of less than 12 months following diagnosis. We present an interesting case of cholangiocarcinoma which was masked by choledocholithiasis/cholangitis.

An 87yr old white male with h/o non hodgkins lymphoma in remission, COPD, and CHF presented with RUQ abdominal pain, fevers and jaundice for 4 days. ROS was positive for weight loss, pale stools and dark urine. Pt had a 20 pack year h/o smoking and occasional alcohol. Vitals noted a fever of 101.2 F,BP- 130/80, HR-104,RR-20, Pulse Ox- 98% on room air. Physical exam was significant for scleral icterus and RUQ tenderness. Labs revealed a white count of 17.4, platelets 55,000, bands 30, T-bili 3.0, D-bili 2.1, ALP 414, AST 90, ALT 74. RUQ US revealed a distended gallbladder with thickened wall and no pericholecystic fluid or gallstones. CBD - 10 mm with biliary sludge. IV antibiotics were started. Pt then underwent EUS and ERCP. EUS revealed mild dilation of the CBD and intra hepatic bile ducts along with multiple stones in the CBD. A limited cholangiogram performed during ERCP confirmed choledocholithiasis. Partial removal was accomplished with sphincterotomy, lithotripsy and balloon sweep followed by placement of a biliary stent. A repeat ERCP was performed 6 weeks later by another endoscopist at which time the previously placed stent was removed. Repeat cholangiogram identified a high grade localized biliary stricture at the level of common hepatic duct concerning for cholangiocarcinoma. Stricture was dilated and brushed and a stent was re-inserted into the CBD. Cytology was interpreted as abnormal with groups of atypical glandular cells seen. MRCP was then performed which revealed irregular intra and extrahepatic biliary dilatation with abrupt narrowing of the common duct in the region of the porta hepatitis. There was vague enhancement present in the liver in the region of the porta hepatitis near the confluence, suspicious for cholangiocarcinoma. Pt was also noted to have an elevated CA19-9 of 485. Pt refused any surgery or chemotherapy given his advanced age and multiple comorbidities and opted for palliative care. He ultimately underwent a third ERCP at which time a palliative metal biliary stent was placed. Choledocholithiasis and Cholangiocarcinoma can be found simultaneously in a patient during ERCP. Endoscopists should be sure to perform a thorough cholangiogram to exclude alternative/concomitant diagnoses. Imaging modalities such as MRCP to evaluate intrahepatic ductal or proximal CBD lesions should be considered as it complements EUS and ERCP.

Methods: N/A
Results: N/A
Conclusion: N/A

AUTH DESIGN: ACG Membership Status <font color="red">*</font>: Mandeep Singh : ACG Member
Vinay Sood : ACG Member
(No Image Selected)
AVERAGE SCORE: 4.67
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
David Hass: [No Comments] Charlene Le Pane: [No Comments] Renee Young: [No Comments] Rowen Zetterman: [No Comments]
Dramatic improvement in severe triglyceride induced acute pancreatitis after one treatment with plasmapheresis. A case report

**Abstract Body:**

**Purpose:** Introduction: Hypertriglyceridemia is the third most common cause of acute pancreatitis in the United States. Although acute triglyceridemic (TG) pancreatitis is typically severe and sometimes life threatening, there is no consensus on its management. Rare reports document rapid improvement of TG levels after plasmapheresis. We report here a case of a 29 year old male who presented with severe acute hypertriglyceridemic pancreatitis (SAHP) and responded dramatically to plasmapheresis.

**Methods:** Case Description: 29 year old previously healthy male presented with severe abdominal pain of one day duration. He described it as sharp, radiating to the back, 8/10, aggravated by eating, associated with nausea and vomiting. Social history was significant for drinking 2-3 drinks of vodka a night for 10 years. Physical exam was remarkable for acute distress due to epigastric pain. Vitals were T 98.1, HR 94, RR16 and BP 141/98. Laboratory findings revealed creatinine (Cr) 0.7, BUN 9, WBC 13.1, lipase 482, amylase 85, calcium 8.5 and lactic acid 3.0. The serum appeared grossly lipemic. LFTs showed albumin 3.4, total bilirubin 1.4, AST 90, ALT 90 and alkaline phosphatase 100. Lipid panel showed HDL, LDL, TG and total cholesterol of 17, 126, 2659 and 686 mg/dl, respectively. Abdominal CT revealed diffuse inflammatory changes around the pancreatic head and body with mild necrosis. On day 2, the patient deteriorated with severe respiratory distress suggesting ARDS and was intubated and placed on ventilatory support. He was started on aggressive IV hydration with no oral intake, insulin drip and subcutaneous heparin. One emergency session of plasmapheresis was initiated. Within 24 hours, TG and lipase levels went down to 378 and 134 respectively. Insulin drip and plasmapheresis were discontinued and oral gemfibrozil was started. His TG and lipase quickly normalized and he was successfully extubated and discharged.

**Results:** N/A

**Conclusion:** This case reports dramatic improvement of severe acute hypertriglyceridemic pancreatitis with impending ARDS after one treatment with plasmapheresis. Clinicians should be aware of this option in their treatment of triglyceride induced acute pancreatitis.
Complications of Dropped Gallstones

Leila Neshatian

Mayo Clinic, United States

Purpose: Perforation of the gallbladder is the most common complication of laparoscopic cholecystectomy (lap chol) and happens in up to 20% of cases. Although the incidence of dropped stones is not clear, less than 3% will become symptomatic. Abscess formation represents the most frequent complication of retained stones.

Methods: Case series.

Results: An 83 year old man presented with abdominal pain. CT scan showed multiple right retroperitoneal subdiaphragmatic nodules. Biopsy of one of these masses showed bile pigment and fragments of stone associated with abscess. Exploratory laparotomy showed significant number of dropped pigmented gallstones with severe inflammatory reaction around them. He had undergone lap chol 3 weeks prior to this presentation.

A 71 year old man presented with obstructive jaundice. CT scan showed dilation of intra and extrahepatic bile ducts proximal to a poorly defined soft tissue mass between pancreatic head and inferior vena cava. There were also two other perihepatic masses, in posterior aspect of liver under right diaphragm and along the anterior aspect of liver in Morison's pouch. EUS guided and percutaneous aspiration of peripancreatic and perihepatic masses were consistent with focal inflammation. ERCP showed benign common bile duct stricture, with pathology negative for malignancy. Repeat imaging 6 months after initial presentation showed interval decrease in size of peritoneal masses and resolution of biliary duct dilatation. He had undergone lap chol 4 years prior to presentation.

A 64 year old man presented with recurrent abscess formation occurring with 6 months after lap chol performed 3 years ago. He had initially developed intrahepatic abscess, followed by empyema in the right hemithorax requiring open thoracotomy and decortication 6 months prior to the presentation. Since then he had recurrent perihepatic abscess posterior to the right lobe of liver with tracking via an intercostal space to extraabdominal subcutaneous tissue. Abdominal exploration with debridement and lavage of the retroperitoneal intramuscular abscess revealed a chronic perihepatic abscess with thoracoabdominal wall sinus track. Bile pigments were present microscopically.

Conclusion: Gallstone abscess following spillage of stones during lap chol is extremely rare. Abscesses develop within few weeks to years after lap chol. Abscess formation is not confined to subphrenic space and can extend into the thorax, abdominal wall and intraperitoneal space. A high index of suspicion for gallstone abscess is crucial for prompt diagnosis. Although conversion to open cholecystectomy does not seem to be necessary in all cases of spillage, once a late abscess has occurred open debridement and lavage of the cavity is indicated.

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Poster Only
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Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: Not Applicable
FDA Approval: No
Designed Study: Investigator
Abstract Author: Investigator

AUTH DESIG: ACG Membership Status:<br>Leila Neshatian : ACG Non-Member<br>Amindra Arora : ACG Non-Member
(No Image Selected)
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Purpose: The National Cancer Institute reports high incidence of renal cell carcinoma (RCC) in the US compared to other regions. However, pancreatic and periampullary metastasis is uncommon when only 17% of the RCC cases metastasize overall. We herein present a case series of 4 patients with periampullary or pancreatic metastatic disease following complete resection of RCC, evaluating their occurrences and outcomes.

We reviewed the cases of 4 male patients retrospectively, mean age 75 years (range 65 to 87) who had a previous history of nephrectomy for renal cell carcinoma. They experienced recurrence with periampullary (2 patients) or pancreatic (2 patients) metastatic disease between 0 to 108 months (mean time 41.5 months) following primary tumor resection. In patients with periampullary metastasis, one had asymptomatic presentation with progressive dilatation of the pancreatic duct noted on surveillance CT scans. The other patient had iron deficiency anemia and melena with EGD findings of large fungating infiltrative ulcerative mass in the area of duodenal papilla (the only patient with metastasis to other sites; lungs and colon). As for those with pancreatic metastasis, one patient presented with hematuria and abdominal pain and was found to have pancreatic metastasis at the time of RCC diagnosis. The other patient was admitted for further workup of a mass in the pancreatic tail upon surveillance. Pathologic findings included high grade renal cell carcinoma in the metastatic foci. Management of such patients included: Distal pancreatectomy in 2 patients without chemoradiation, one is awaiting Whipple procedure and received 4 cycles of Sunitinib, while the last being a poor surgical candidate and received aminocaproic acid. 3 patients are still alive to date.

Optimal management is challenging given the very high risk of delayed relapse following tumor resection of the localized disease, leaving such cases with a very poor prognosis. Therefore to enhance survival, it is imperative to have careful stage-dependent surveillance in patients who have undergone a prior resection of RCC. We emphasize the importance of raising awareness for this unusual presentation. Disease recurrence as a pancreatic mass or hepatobiliary ductal dilatation might be more frequent than previously reported.

Methods: N/A
Results: N/A
Conclusion: N/A
Purpose: Introduction
Sorafenib is indicated for the treatment of advanced renal cell carcinoma and unresectable hepatocellular carcinoma.

Case Report
A 68 year old male with metastatic renal cell carcinoma was started on sorafenib 200mg orally bid. He presented to the ER 11 days afterwards with severe epigastric pain radiating to the back. Serum amylase and lipase on admission were 148 U/L and 805 U/L respectively. Abdominal CT revealed microlithiasis without evidence of cholecystitis, this was unchanged from imaging done a couple of months ago; there was no abnormality of the biliary and pancreatic ductal system. He had no history of alcohol abuse; serum triglyceride, calcium and liver function tests were within normal limits. Sorafenib was discontinued upon admission, he was made NPO, iv fluids were started and narcotics were administered as needed; there was complete symptom resolution within 48 hours. Sorafenib was re-started 7 days after admission at the same dose. During outpatient follow-up 3 weeks later, serum amylase and lipase were 50 and 99 respectively and there was no recurrence of symptoms. He took sorafenib for a total of 10 weeks before voluntarily discontinuing it, he opted for hospice care.

Discussion
Sorafenib is a small-molecule inhibitor that binds to serine/threonine Raf-1 kinase and multiple classes of receptor tyrosine kinases (RTKs) including vascular endothelial growth factor receptor (VEGFR)-2, VEGFR-3, platelet-derived growth factor receptor (PDGFR), Fms-like tyrosine kinase-3 (FLT-3), and c-kit. The VEGFR-2/PDGFR signaling cascade is involved in vasculogenesis, angiogenesis, tumor cell motility and metastasis. The development of acute pancreatitis in patients on sorafenib may lie in the role of VEGF in the maintenance of adult pancreatic fenestrated capillaries and regulation of the cell cycle of the acinar cells; therefore VEGF inhibition would lead to ischemia, acinar cell apoptosis and release of autodigestive enzymes. In addition, sorafenib decreases GI motility, which in turn may cause reflux of duodenal contents into the pancreatic duct and induce the premature activation of zymogens within the pancreatic acinar cell resulting in the release of active enzymes within pancreatic tissue, leading to autodigestion. Sorafenib may cause pancreatitis; patients initiating this medication should be made aware of this potential complication and monitored for it. Sorafenib should be interrupted in patients who develop pancreatitis, but may be re-started after carefully assessing the risks and benefits of treatment; if there’s a recurrence of pancreatitis we recommend discontinuing the medication permanently.

Methods: N/A
Results: N/A
Conclusion: N/A

AUTH DESIG: ACG Membership Status <font color="red">*</font>:
Adegboyega Olayode : ACG Non-Member
Robert Kizer : ACG Non-Member
(No Image Selected)
(no table selected)

**AVERAGE SCORE:** 4

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**
Purpose: Dipeptidyl Peptidase-4 (DPP-4) inhibitors like Sitagliptin and Saxagliptin are well known to cause acute pancreatitis. We present a case of a patient in whom this complication was initially overlooked leading to delay in treatment.

Case
A 45 year old female with history of gall stone induced pancreatitis, status post cholecystectomy 4 years ago, presented with 1 week history of nausea and epigastric abdominal pain. Physical examination revealed severe epigastric tenderness. Laboratory results showed normal liver enzymes with an elevated serum lipase level of 525U/L. A diagnosis of acute pancreatitis was made. She denied any alcohol usage and abdominal imaging did not reveal any gall stones. It was noted that she was started on saxagliptin for uncontrolled diabetes mellitus, a week prior to onset of her symptoms. She developed epigastric pain after that and was prescribed proton pump inhibitor by her primary care physician but it did not help with her symptoms. During the hospital stay, she was treated with intravenous fluids, analgesia and her saxagliptin was stopped. Her symptoms improved with in 3 days and lipase returned to normal at the time of discharge.

Discussion
Acute Pancreatitis is an important and fatal side effect of DPP-4 inhibitors. This was recognized by FDA in 2009 after eighty-eight post marketing cases of acute pancreatitis in patients using sitagliptin were reported. The label for these medications mention that any patient initiated on these medications should be carefully observed for signs and symptoms of pancreatitis. If pancreatitis is suspected, the drug should be discontinued immediately and appropriate management should be started. Our patient developed epigastric pain within a few days of initiation of saxagliptin and her appropriate treatment was delayed as she was initially treated for gastritis. Based on the Naranjo algorithm for assessing the causality of an adverse drug reaction, the likelihood of saxagliptin being the causal agent was graded as 'probable' with a score of 7. She had a past history of gall stone induced pancreatitis but this is still unknown whether patients with a past history of pancreatitis are at an increased risk of developing this adverse drug effect or not.

Conclusion
DPP-4 inhibitor induced pancreatitis is a well known but still an under recognized complication. It can be easily overlooked which may lead to delay in the treatment and even fatality in severe cases. This necessitates cognizance among physicians to recognize this complication early. Also, further research is required to know whether patients with previous history of pancreatitis are at increased risk of developing pancreatitis with DPP-4 inhibitors.

Methods: N/A
Results: N/A
Conclusion: N/A
FDA Approval: Yes
Designed Study: Investigator
Abstract Author: Investigator

AUTH DESIG: ACG Membership Status <font color="red">*</font>:
Kaartik Soota : ACG Non-Member
Mohammad Telfah : ACG Non-Member
Navitha Ramesh : ACG Non-Member
Mark Pereira : ACG Non-Member
Deerajnath Lingutla : ACG Non-Member
(No Image Selected)
(no table selected)

AVERAGE SCORE: 3.5
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Purpose: Pancreaticopleural fistulas are an infrequent complication of pancreatitis, pancreatic trauma or pancreatic surgery. Seventy to ninety percent of pancreaticopleural fistulas occur as sequelae to chronic pancreatitis. Several case reports have described the success of ERCP in the management of pancreaticopleural fistulas. However, we are aware of only 2 case reports of pancreaticopleural fistulas effectively managed with ERCP in the setting of pancreas divisum or pseudodivisum. We describe a case of pancreaticopleural fistula in the setting of alcohol pancreatitis and pancreas divisum successfully treated with ERCP and dorsal pancreatic duct stenting. Case Presentation: A 31 year old female with a history of alcoholic pancreatitis presented with a recurrent left-sided pleural effusion and epigastric pain. On admission, her amylase was 819 U/L. Her chest X-ray was remarkable for a large left pleural effusion with lung collapse. The MRCP was notable for pancreas divisum and inflammation of the pancreatic head. Fluid was also seen tracking superiorly and communicating with the left pleural effusion. A left chest tube was placed and 2 liters of fluid was drained. Fluid analysis was notable for an amylase of 24608 IU/L and a lipase of 39595 U/L, confirming the diagnosis of pancreaticopleural fistula. ERCP demonstrated a normal biliary tree. On pancreaticogram, the ventral pancreatic duct was completely disrupted with contrast filling a fistulous tract. The minor papilla was then cannulated and pancreaticogram demonstrated a normal caliber dorsal pancreatic duct communicating with the same fistulous tract at the level of the genu of the pancreas. After minor papillotomy, a 5 Fr by 9 cm pancreatic stent with a single internal flap was placed through the minor papilla and into the dorsal duct bridging the disrupted area. After ERCP, the patient was started on parenteral nutrition and octreotide. The patient’s chest X-ray remained clear 6 days after the stent was placed with minimal drainage from the chest tube. The chest tube was then removed and she was discharged home. Parenteral nutrition and octreotide were stopped 2 weeks later. 7 weeks after her ERCP, the pancreatic stent was removed. Pancreaticogram through the minor papilla demonstrated no extravasation of contrast and a healed fistulous tract. Discussion: Pancreaticopleural fistulas are rare with the majority of cases occurring in the setting of chronic pancreatitis. We describe the formation of a pancreaticopleural fistula in the setting alcoholic pancreatitis, pancreas divisum and disrupted ventral and dorsal ducts. The pancreaticopleural fistula was successfully managed with trans-minor-papillary stenting of the dorsal pancreatic duct.
AVERAGE SCORE: 3.5
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Benign vs Malignant Renal Masses in Autoimmune Pancreatitis, warranting the need for biopsy

Muhammad Ali Khan
University of Toledo Medical Center
United States

Purpose: Type 1 autoimmune pancreatitis (AIP) is considered to be a manifestation of a novel clinicopathological entity called IgG4 related sclerosing disease. Extrapancreatic manifestations can include involvement of bile ducts, salivary gland, lung nodules, thyroiditis, interstitial nephritis, renal masses, and retroperitoneal fibrosis. We encountered a case of AIP who also developed renal cell carcinoma (RCC). To the best of our knowledge this is the third reported occurrence of renal cell cancer associated with AIP (Table 1).

We report a case of a 73 year old Caucasian male who presented with obstructive jaundice, pruritus, a four month history of oily diarrhea, weight loss, and uncontrolled diabetes mellitus. Physical examination was unremarkable except for scleral icterus. Liver function tests demonstrated a Total Bilirubin of 16.9 mg/dL, AST of 118, ALT of 213, and Alkaline Phosphatase of 438.

A CT scan demonstrated mild biliary tree dilatation. No definite obstructing mass or gallstone was visualized. The pancreas demonstrated no surrounding inflammatory change or ductal dilatation. A left renal mass measuring 30mm was also noted.

ERCP and EUS- FNA were performed. The Radial EUS disclosed diffuse hypoechochogenicity of pancreatic parenchyma with small pancreatic duct measuring 1.3mm in size. The pancreatic head was prominent with no discrete mass identified. ERCP showed distal common bile duct stricture measuring 20mm in length located in the region of the head of the pancreas. The stricture was brushed, biopsied, and stented. EUS-FNA was subsequently performed with biopsies taken form the head of the pancreas. The pathology was negative for malignancy. Based on endoscopic findings an IgG subclass analysis was performed resulting in an elevated IgG4 of 388mg/dL consisted with AIP. Prednisone was initiated which led to complete resolution of his symptoms. Repeat ERCP after 2 months revealed a patent biliary tree and the stent was removed. The patient was maintained on 20mg of prednisone. Five months into the course of treatment a repeat CT was performed to re-evaluate the renal mass, initially suspected to be an extrapancreatic manifestation of AIP. On repeat imaging the left renal mass had increased in size to 34mm. The patient underwent partial left nephrectomy which revealed RCC.

Majority of renal masses associated with AIP are benign and considered a part of the extrapancreatic manifestations of the disease. However, it is imperative to have a low threshold for suspecting RCC particularly if the mass is not responsive or increasing in size during treatment. These cases highlight the need for continued follow up and potential biopsy or surgery.

Methods: N/A
Results: N/A
Conclusion: N/A
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<th>Patient</th>
<th>Age</th>
<th>Gender</th>
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<td>Male</td>
<td>Asian</td>
<td>1 year before diagnosis of AIP</td>
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<td>2.</td>
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<td>Asian</td>
<td>10 years before diagnosis of AIP</td>
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<td>3. (Our Case)</td>
<td>73</td>
<td>Male</td>
<td>Caucasian</td>
<td>5 months after diagnosis of AIP</td>
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</table>

**Table 1**

**TABLE TITLE:** Table 1  
**AVERAGE SCORE:** 3  
**REVIEWER FLAGS:** (none)  
**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None  
**REVIEWER COMMENTS:**  
Haritha Avula: [No Comments]  
James Buxbaum: [No Comments]  
Raquel Davila: [No Comments]  
Brian Weston: [No Comments]
CBD Stones: If you can't Sweep them, Vacuum them!

Amol Sharma

Penn State - Hershey Medical Center

United States

Purpose: Background: Stone extraction from markedly dilated extrahepatic bile ducts can be challenging due to difficulty achieving effective balloon apposition with the ductal wall. Studies examining stone extraction strategies in these cases are lacking. We describe this scenario in three cases and a novel technique to overcome this technical difficulty. Case 1: 64 year-old female with right upper quadrant pain was found to have cholelithiasis and common bile duct (CBD) dilation of 20 mm on imaging. Labs demonstrated elevated liver chemistries. Case 2: 87 year-old female with E coli bacteremia and ascending cholangitis was found to have a dilated CBD up to 23 mm with an 11 mm filling defect in the distal segment on imaging. Case 3: 11 year-old male with sickle cell disease status post cholecystectomy exhibited persistent common hepatic duct (CHD) dilation to 24 mm on MRCP in the setting of abnormal liver chemistries despite two prior ERCPs with sphincterotomy and stent placement. Procedures: In all three ERCPs, filling defects were visualized in large, dilated extrahepatic biliary ducts. Despite multiple attempts, balloon sweeps could not achieve adequate apposition with the biliary wall for clearance of all retained biliary stones or sludge. The balloon was advanced to above visualized filling defects and negative pressure was introduced onto biliary system by a 60 cc syringe on a wire port until collapse of duct above the balloon. This allowed apposition of the balloon on the wall of extrahepatic bile duct and successful sweeping of stones and debris. In the third case, a stone was pulled down into the distal duct, becoming lodged and requiring mechanical lithotripsy. Complete clearance of the bile duct was confirmed by occlusion cholangiogram in the first and third cases and cholangioscopy in the second case. Conclusion: These three cases illustrate a novel, successful technique using negative pressure in clearance of difficult-to-remove biliary stones from markedly dilated extrahepatic bile ducts during ERCP that can be readily employed in practice.

Methods: N/A

Results: N/A

Conclusion: N/A

G. Clinical Vignettes/Case Reports

C. Pancreatic/Biliary

Oral or Poster

No

No

No

Investigator

No

Investigator

Investigator

Amol Sharma : ACG Non-Member
Abraham Mathew : ACG Member

5.25

(None)

None

ABSTRACT BODY:

Purpose: This is a case report of early diagnosis of gallbladder malignancy using Fluorescence in situ hybridization (FISH) that lead to surgical resection and cure from a malignancy which otherwise has a very poor prognosis.

Methods: A sixty six year old Caucasian man with twelve years history of ulcerative colitis (UC) was evaluated because of abnormal liver function tests and suspected Primary Sclerosing Cholangitis (PSC). He had an abdominal CT scan which showed mildly dilated intrahepatic ducts with no other biliary ductal or gallbladder abnormalities. His Ca 19.9 was elevated at 80 units/ml. He underwent an endoscopic retrograde Cholangiography (ERC) which showed irregularity in the distal common bile duct (CBD) and stricturing in the right hepatic duct (RHD) consistent with PSC. Brushing for cytology and FISH were obtained from the CBD and the RHD.

Results: cytology showed reactive cellular atypia and acute inflammation and FISH showed 5 cells with gains of two or more chromosomes, 3(D3Z1), 7(D7Z1), and 17(D17Z1), and greater than 10 cells with gains of a single chromosome, 7(D7Z1). These results were consistent with malignancy. An Endoscopic Ultrasound was performed showing asymmetric gallbladder wall thickening and no evidence of a mass. The distal CBD was also mildly thickened. He was planned to undergo colectomy for colonic dysplasia in the setting of longstanding UC so he underwent a concomitant cholecystectomy based on our recommendations. Pathology showed a well differentiated 2.2cm gallbladder carcinoma with perimuscular invasion but no extension beyond the serosa or into the liver and no malignant adenopathy (stage T2 N0 M0). The patient has been followed up closely for 2 years with multiple MRIs and ERCs with cytology and FISH being performed. These have been consistently negative for malignancy. He has no other clinical findings suggestive of cholangiocarcinoma.

Conclusion: While the molecular pathogenesis of adenocarcinoma of the biliary tree remains poorly understood, evidence suggests that there is a field carcinogenic effect in patients with PSC putting them at an increased risk of both cholangiocarcinoma and gallbladder cancer. A positive FISH in our patient with no clear evidence of cholangiocarcinoma prompted a careful examination of the gallbladder with findings suspicious enough to lead to cholecystectomy. This thorough evaluation lead to early detection and long term cure from gallbladder cancer which otherwise has a very poor prognosis unless detected incidentally on cholecystectomy done for a different etiology.
Purpose: A 57 year old sheep farmer from Uruguay presented with severe intermittent right sided abdominal pain for one week not associated with fever, jaundice or pruritus. Imaging revealed a 9.3 X 8.0 X 10.6 cm thick walled septated cystic mass with calcifications in the right lobe of the liver. It consisted of a 1.2 X 0.6 cm septated cystic component anteriorly and a 1.9 X 0.9 cm septated cystic component posteriorly. The extrahepatic biliary duct was dilated at 1.2 cm. Evaluation showed elevated liver chemistries: total bilirubin 1.3 mg/dL, AST 412 U/L, ALT 360 U/L and alkaline phosphatase 249 U/L. Endoscopic retrograde cholangiography (ERC) revealed a filling defect of the common bile duct (CBD). The biliary tree did not communicate with the septated cyst. A sphincterotomy was performed and a daughter cyst was extracted using a balloon catheter. Subsequently, echinococcus Ab was positive. The patient was discharged on albendazole prior to surgical management.

Discussion: Hepatic hydatid cysts are usually asymptomatic. Symptoms occur due to the size of the cyst causing pressure on the liver parenchyma or from possible intrabiliary rupture. Intrabiliary rupture can occur occultly when the cystic fluid only drains into the biliary tree or as a frank rupture with intracystic material and/or daughter cysts draining into the biliary tract. ERC performed preoperatively, in a patient with hydatid cyst with or without biliary dilation, may avoid an unnecessary CBD exploration. It can be used for definition of biliary anatomy providing a roadmap of cystobiliary fistulas prior to cystectomy. Additionally, daughter cysts may be extracted from the biliary tract, relieving obstruction and/ or cholangitis. Lastly, ERC can prevent abscess formation from the colonization of a ruptured cavity by intra-abdominal pathogens entering through the external cystobiliary fistula.

Conclusion: Although hepatic hydatid cysts are rarely encountered in the developed world, when suspected, ERC should be performed to relieve obstruction and to avoid CBD exploration. This may decrease morbidity post operatively from external fistulas and abscess formation.

Methods: n/a
Results: n/a
Conclusion: n/a
REVIEWER RECOMMENDATION CODE DESCRIPTION: None

REVIEWER COMMENTS:
Haritha Avula: [No Comments]
James Buxbaum: [No Comments]
Raquel Davila: [No Comments]
Brian Weston: [No Comments]
Purpose: A 70 y/o gentleman presented to the Emergency room complaining of an episode of pre-syncope. His vitals were stable and physical examination was unremarkable. In the hospital he had a large bloody bowel movement and hematemesis and his hemoglobin fell from 11.4 to 6.6. He was administered 4 units of packed red cells. Emergent Esophago gastro duodenoscopy was performed and he was found to have a large duodenal ulcer with an adherent clot. Intervention Radiology was consulted and arteriogram revealed that the patient was bleeding from both his superior and inferior pancreaticoduodenal arteries. Patient underwent embolisation of both the arteries as well as gastro-duodenal artery with gel foam and arterial coils. His hemoglobin stabilized and he was discharged to a rehabilitation facility after a hospital stay of 2 weeks. He again presented to the Emergency room 2 weeks later complaining of abdominal pain and severe persistent hiccups. He did complain of any malena, hematemesis or hematochezia. Examination revealed a distended, diffusely tender abdomen with guarding and sluggish bowel sounds. Abdominal X ray revealed air fluid levels. Labs showed showed WBC 13.3, Hb 8.1, Platelets 214, BUN 22, Cr 1.2, AST 68, ALT 49, Alk Phos 94, Lipase 3527. CT abdomen revealed extensive necrotic pancreatitis. He was administered intravenous Imipenem/Cilastin and supportive care. Patient made a good clinical improvement in 3 weeks.

Methods: N/A

Results: N/A

Conclusion: Duodenal stenosis secondary to ischemia is the most commonly reported complication of pancreaticoduodenal artery embolization for a bleeding duodenal ulcer. Acute Ischemic Necrotizing Pancreatitis is also a potential complication and should be suspected in patients with recurrent abdominal pain with out a drop in level of hemoglobin. A CT abdomen should be obtained without a delay.
Purpose: This is the case of an 86 year old man with a past medical history of hypertension, prostate cancer treated by radical prostatectomy, and peptic ulcer disease treated by a Billroth type II gastrectomy, who presented to the emergency room with a two week history of jaundice, pruritus, choluria, and pale stools. He also reported a 20 lb weight loss in one month. Pertinent physical examination findings were cachexia, generalized jaundice, and a painless, enlarged, palpable gallbladder. Initial laboratories were notable for a total bilirubin level of 29 mg/dL with a direct bilirubin component of 18 mg/dL, alkaline phosphatase 1,100 U/L, ALT 162 U/L, and AST 184 U/L. The computer tomography radiographic impression was consistent with gallbladder distention and dilation of the pancreatic and bile ducts.

The patient was evaluated by the gastroenterology service that determined to perform an endoscopic retrograde cholangiopancreatography for further evaluation. The procedure was remarkable for an ampulla with a marked bulging appearance and subsequent drainage of large amount of bile upon needle knife pre-cut papillotomy. These findings were compatible with a type III choledochal cyst.

The common bile duct was cannulated and dilated and there were no strictures or stones identified. Brushings were sent for pathology analysis. Ensuing drainage there was cholestasis relief confirmed by the following laboratory values: bilirubin 5.6 mg/dL, alkaline phosphatase 276 U/L, ALT 49 U/L, and AST 47 U/L. Unfortunately, cytology reported atypical cells suggestive of cholangiocarcinoma.

Biliary cysts are dilations of unknown etiology that occur throughout the biliary tree and are classified within five subtypes depending on their location and characteristics. Incidence is of 1:100,000 people, and there is a female to male ratio of 4:1, occurring most commonly in children. Chronic and intermittent abdominal pain is the most common presenting symptom. Type III cysts are limited to the intraduodenal portion of the distal common bile duct, and account for 1-5 % of all cysts. Type III cysts are associated with a 2% cancer risk, however prognosis is worse in elderly patients.

This is an extraordinary case of an elderly man that presents with a clinical presentation of jaundice that resulted to be caused by a type III biliary cyst. Choledochoceles in the elderly are very rare and when present pancreaticobiliary tumors must be ruled out. This case serves to illustrate how a high clinical suspicion for biliary cysts and related complications should be adopted upon identifying extrahepatic cholestasis in elderly patients.

Methods: N/A
Results: N/A
Conclusion: N/A
CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Poster Only
ACG Research Grant Support: No
Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: Not Applicable
FDA Approval: No
Designed Study: Investigator
Abstract Author: Investigator
AUTH DESIGN: ACG Membership Status *<font color="red">*</font>:

Sheryl Rosa : ACG Non-Member
Amarilys Santiago Rolon : ACG Non-Member
Jose Martin-Ortiz : ACG Member
Doris Toro : ACG Member
(No Image Selected)
(no table selected)

**AVERAGE SCORE:** 4

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**

Haritha Avula: [No Comments]
James Buxbaum: [No Comments]
Raquel Davila: [No Comments]
Brian Weston: [No Comments]
Purpose: Successful treatment of ascites depends on identifying the correct cause since some non-hepatic causes of ascites, such as peritoneal carcinomatosis, do not respond to diuretic therapy. We present an interesting case of new onset ascites, involving a delayed diagnosis as well as the multidisciplinary approach for resolution of the diagnosis.

Methods: A 40 year old man presented with abdominal distension, vomiting, fever and 20 lb weight loss. A diagnostic paracentesis performed at an OSH excluded SBP and patient was transferred to us for further management. USG suggested a large amount of ascites and cirrhotic morphology of liver but normal sized spleen and normal portal flow. The CBD was non-dilated at 3mm. Initial labs revealed total bilirubin 2.3 mg/dl, direct bilirubin 1.1 mg/dl, AST 22 U/L, ALT 39 U/L, ALP 450 U/L, and GGT 65 U/L. A therapeutic paracentesis was performed revealing dark brown fluid. Further history revealed the patient underwent laparoscopic cholecystectomy for biliary dyskinesia 2 months prior. Ascitic fluid bilirubin was obtained which was elevated at 17.4 mg/dL. HIDA scan revealed a large confined area medial to the liver with extension into the stomach area, and CT confirmed the biloma. During ERCP the guide wire was unable to be advanced into the CBD and no contrast was found proximal to this area of resistance and hence procedure was aborted. A percutaneous transhepatic cholangiography (PTC) was performed which revealed marked leakage of contrast into the peritoneum with poor opacification of biliary tree, confirmatory of bile leak due to CBD injury. Subhepatic and intrahepatic drains were placed for decompression of bile for 1 months time.

Conclusion: Initial SAAG of 15.5 g/L reported from OSH generated a differential list of cirrhotic ascites, cardiac ascites, and Budd-Chiari Syndrome. However, clinical, laboratory and radiological findings did not support any of these. Removal of dark brown peritoneal fluid raised a possibility of a biliary leak which was later confirmed with high bilirubin and CT/HIDA imaging. With the emergence of the ERCP and PTC the management of bile leaks has evolved away from the patient returning to surgery. Endoscopic internal stenting is currently the procedure of choice for treating bile duct leaks with a therapeutic response with cessation of bile extravasation in 70-95% of cases within a period of 1-7 days. PTC is often used when intrahepatic bile duct injuries are unable to be accessed by the retrograde route as with this patient. This interesting case of new onset ascites involves discussion of misleading factors for delayed diagnosis and emphasizes on multidisciplinary approach for resolution of the diagnosis and its management.
AVERAGE SCORE: 4.75
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Haritha Avula: [No Comments]
James Buxbaum: [No Comments]
Raquel Davila: [No Comments]
Brian Weston: [No Comments]
Purpose: Introduction; Gallbladder stone disease is one of the most common disorders of the gastrointestinal tract. The prevalence of gallstones in the United States is approximately 10% to 15%. Gallstones vary in sizes and numbers. There are very few reports of a large gallstone reported in the literature. We report a case of 71 year old female with giant size gall stone mimicking as a gallbladder malignancy.

Case Report: A 71-year-old moderately obese Caucasian female was been admitted with one week history of generalized fatigue, headache, low grade fever, chills, increasing abdominal pain and nausea. Her past medical history included hypertension, abdominal aortic aneurysm and diverticulitis followed by diverticular perforation in the past six months. She had a colectomy and Hartmann’s procedure done for diverticular perforation. On admission, her vitals were normal. Her abdomen was mildly distended with mild generalized tenderness and moderate tenderness in the left lower quadrant. She had low hemoglobin of 10.1 gm%, mild hyponatremia, hypokalemia and acute renal insufficiency (BUN 24, creatinine 1.12). The CT scan displayed a complex gallbladder mass measuring 8.2cm x 6.5cm x 5.4cm in size with calcifications as well as evidence of the blood supply on ultrasound to the mass within the gallbladder suspicious for gallbladder malignancy. It also revealed multiple splenic abscess. Largest splenic abscess was aspirated percutaneously. Patient completed course of antibiotics and the drains were removed prior to surgery. Patient was consented for partial hepatectomy, cholecystectomy, splenectomy and portal lymphadenectomy. Per operatively large gallbladder stone revealed without any evidence of hepatic metastases on the intraoperative ultrasound examination. Three lymph nodes from the porta hepatis were removed and sent for pathology and the splenectomy was performed.

Discussion: There are just two cases of giant gallstones has been reported in the literature so far. To our knowledge, the largest gallstone reported– considered to be congenital by the authors – was one of 18 cm length and 4 cm in width. Another report was from chile measuring 16.8 cm long, and 7.8 cm wide and 4.1 cm at its narrowest point. Though our patient didn't have huge dimensions like previously reported cases, it was unique in terms of more complex structure on CT scan and its association with multiple splenic abscesses. The pathogenesis of splenic abscess thought to be related to her recent surgery of diverticular perforation resulted in spleen injury and splenic fluid collection which has become infected.

Methods: N/A
Results: N/A
Conclusion: N/A

AUTH DESIG: ACG Membership Status: Pranav Patel: ACG Member, Paras Patel: ACG Non-Member
AVERAGE SCORE: 4.25
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Haritha Avula: [No Comments]
James Buxbaum: [No Comments]
Raquel Davila: [No Comments]
Brian Weston: [No Comments]
Unique presentation of nesidioblastosis in the setting of Cornelia de Lange Syndrome

Purpose: A 49-year-old female with diagnosis of Cornelia de Lange syndrome and mental retardation living in a community assisted living facility, presented with recurrent episodes of documented symptomatic hypoglycemia. Collateral history excluded any other significant medical history including use of exogenous insulin or oral hypoglycemic agents. Laboratory investigations revealed hypoglycemia with blood sugars in the range of 30-60’s mg/dl with elevated insulin level of 63.35 mcunit/ml. Work up for adrenal insufficiency, thyroid disease and hypopituitarism was negative. A seventy-two hour fasting test was negative. Initial CT abdomen with pancreatic protocol was negative. A follow up CT angiography showed 4 non enhancing pancreatic body/tail lesions. Endoscopic ultrasound (EUS) of pancreas showed four < 1 cm isoechoic lesions in the pancreatic head and tail. Fine needle aspiration (FNA) revealed clusters of neuroendocrine cells characterized by stippled chromatin, a small pale eosinophilic and slightly granular cytoplasm consistent with hyperplastic islet cells. Repeated EUS and CT over a 6 year span showed no changes in the lesions. Medical management with diazoxide was favored over surgical pancreatectomy because of stability of the lesions, underlying medical co-morbidity and good response to medical management.

Cornelia de Lange Syndrome, also known as Brachmann de Lange Syndrome, is a genetic heterogeneous disorder that affects an estimated 1/10, 000 characterized by craniofacial dysmorphisms, upper limb defects, mental retardation, and gastrointestinal disorder. Sixty five percentage of cases are the result of mutations in cohesin proteins involved in sister chromatid cohesion events during meiosis and mitosis. GERD is the predominant GI disorder in patients with Cornelia de Lange Syndrome but no case report of nesidioblastosis has been reported so far. Although insulinoma remains the most common cause of organic hyperinsulinism in adults, nesidioblastosis is becoming more recognized as a cause of persistent hyperinsulinemic hypoglycemia (PHH), particularly with the introduction of Roux-en-Y bariatric surgery. Adults with nesidioblastosis often present with classic symptoms of hypoglycemia and typically have a higher likelihood of having postprandial hypoglycemic symptoms than other causes of hypoglycemia and often have a negative 72-hour fasting test. Other suggestive results may show a high proinsulin in the more disorganized insulinoma and are more likely to be normal in nesidioblastosis. This patient’s presentation of nesidioblastosis in the setting of Cornelia de Lange Syndrome is the first documented case in literature making this unique.

Methods: N/A
Results: N/A
Conclusion: N/A
Christopher O'Connell : ACG Non-Member
Naveen Rajpurohit : ACG Non-Member
Sameer Siddique : ACG Member
Abhishek Choudhary : ACG Member
Ghassan Hammoud : ACG Member
(No Image Selected)
(no table selected)

**AVERAGE SCORE:** 3.25

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**
Haritha Avula: [No Comments]
James Buxbaum: [No Comments]
Raquel Davila: [No Comments]
Brian Weston: [No Comments]
Purpose: This is a case report of an atypical presentation of a very rare disease.

Methods: A 45 year old male reported two months history of itching, progressive jaundice and 15 pound weight loss. He had no abdominal pain or gastrointestinal bleeding. His labs showed normal Hemoglobin, total bilirubin of 8.5 mg/dl and a carbohydrate antigen 19.9 (CA 19-9) of 25 units/ml. Abdominal CT showed a 5.3 cm calcified mass in the pancreatic head causing obstruction of the intrapancreatic common bile duct (CBD) with proximal dilation. The pancreatic duct was normal. The mass showed peripheral hyperenhancement.

Results: Retrograde cholangiography revealed a malignant appearing distal CBD stricture; brushings for cytology were negative. Endoscopic ultrasound (EUS)-guided fine needle biopsy showed clusters of spindle cells. Immunohistochemistry was positive for CD117, and negative for CD34, desmin and S100 consistent with gastrointestinal stromal tumor (GIST). There was no evidence of metastasis on EUS or PET-CT. He underwent a modified pancreaticoduodenectomy, which confirmed a GIST arising from the duodenal wall 1 cm away from the major papilla obstructing the CBD and abutting the pancreatic parenchyma without invasion into the pancreas. Final pathology confirmed a low grade GIST; the mitotic rate was less than one mitosis per fifty high power fields. GIST calcification is rare before treatment. Duodenal GIST causing obstructive jaundice is uncommon with 2 case reports of major papilla GISTs and 2 case reports of patients with neurofibromatosis-1. The largest series of duodenal GIST reported 22 patients and none had jaundice. Our patient did not have Neurofibromatosis. His duodenal GIST did not involve the major papilla. It compressed the common bile duct and caused jaundice. It did not involve the pancreatic parenchyma and did not cause pancreatic ductal dilation, a finding that may be suggestive of an alternate diagnosis to pancreatic adenocarcinoma which often is ductal in origin and causes pancreatic ductal obstruction and upstream dilation. Duodenal GISTs represent less than 5% of gastrointestinal GISTs and 30% of primary duodenal cancers. The majority arise from the second portion of the duodenum similar to our patient. The aim of surgery is curative resection; in our patient a modified Whipple accomplished clear surgical margins. Mitotic activity is the most important prognostic factor. Prognosis is significantly better than pancreatic cancer with over 85% survival at 3 years.

Conclusion: This is the first report of a calcified duodenal gastrointestinal stromal tumor presenting as a pancreatic head mass causing painless jaundice. Both calcifications and jaundice are very unusual features of this rare disease.
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
ABSTRACT BODY:
Purpose: Introduction: The National Cancer Institute estimates that in 2012 the new number of new thyroid cancer cases reported will be approximately 56,000 with 1780 expected deaths. There are four distinct sub-types of thyroid cancer; papillary, follicular, medullary, and anaplastic with papillary being the most common sub-type. Associated metastatic disease appears in about 5% of these patients with the most common site of metastasis being the lung and bone. Metastatic disease to the pancreas is extremely rare, with only a few cases reported.
Case Report: A 61 year old female, with a history of papillary thyroid carcinoma treated by thyroidectomy and radioiodine ablation (RAI), presents for evaluation for persistent elevation of her thyroglobulin level. A positron emission tomography scan revealed a 3 cm heterogeneously enhancing lesion in the body of the pancreas. At time of presentation the patient denied any jaundice, abdominal pain, nausea, vomiting, back pain, or weight loss. On physical examination the patient was anicteric, with no abdominal tenderness or masses. Patient underwent an endoscopic ultrasound (EUS) for further evaluation revealing a round, hypoechoic well-defined mass in the pancreatic body; approx. 3.6 by 3.4 cm. The pancreatic duct, upstream from the lesion, was dilated to 5 mm. Fine needle aspiration of the mass, using a trans-gastric approach, was performed. Immunohistochemical staining showed the neoplastic cells to be positive for TTF-1, thyroglobulin, CK19 and CK7. CK20, monoclonal CEA, and the neuroendocrine markers were negative. CA 19-9 was focally positive. Cytology was positive for the presence of malignant cells and findings were consistent with metastatic thyroid carcinoma to the pancreas.
Discussion: This case illustrates a very rare presentation of metastatic disease. For diagnosis, EUS is now recognized as the most sensitive tests for the detection of both primary and metastatic lesions of the pancreas. Also observed in our case is the utilization of EUS-FNA with sensitivity for detecting malignancy ranging from 75% to 90%. This technique is superior to that of CT-guided FNA as well as endoscopic retrograde pancreatography (ERP). Our case highlights the utility of EUS, EUS-FNA, and immunohistochemical staining to obtain a tissue diagnosis in suspected pancreatic metastasis.

METHODS: n/a
RESULTS: n/a
CONCLUSION: n/a

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Oral or Poster

ACG Research Grant Support: No
Supported by Industry Grant: No
Commercial Products or Services: No
 Initiated Research: Investigator
Financial Relationships: No
FDA Approval: No
Designed Study: Investigator
Abstract Author: Investigator

AUTH DESIGN: ACG Membership Status <font color="red">*</font>:
Joseph Bergerson : ACG Non-Member
John Nasr : ACG Member
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(no table selected)
AVERAGE SCORE: 4.25
Purpose: ERCP is one of the most challenging endoscopic procedures performed by gastroenterologists with failed biliary cannulation occurring even in the most experienced hands. There are several established techniques to achieve biliary cannulation after initial failure including pre-cut needle-knife sphincterotomy and EUS-guided rendezvous procedure. We present a novel technique to achieve selective biliary cannulation with the use of methylene blue (MB).

A 71-year-old male with a history of facial skin cancer resulting in PEG tube dependency was admitted for progressively worsening post-prandial abdominal pain and inability to tolerate tube feeds. Physical exam was significant for scleral icterus and abdominal tenderness. Labs were consistent with obstructive jaundice and a CA 19-9 of 137.3. CT Pancreas revealed a pancreatic head mass with associated pancreatic and biliary ductal dilation. Given the above information, the patient was scheduled for a diagnostic and therapeutic ERCP for presumed pancreatic malignancy.

ERCP revealed an infiltrative, ulcerated mass at the major papilla that made pancreatic and biliary cannulation unsuccessful despite using several catheters and guidewires. Cholecystokinin was given to help identify the ampullary orifice, but visualization remained poor. Several biopsies were obtained from the mass, which eventually confirmed invasive pancreatic adenocarcinoma, and the decision was made to attempt a EUS-guided rendezvous procedure to achieve access to the biliary duct.

Using EUS, the dilated CBD was identified within the duodenal bulb and a 22G FNA needle was used to achieve access. Unfortunately, we were unable to negotiate a guidewire anterograde into the distal CBD and through the major papilla in order to perform the rendezvous procedure. Given the desire to avoid percutaneous biliary access in this elderly patient, we thought of a novel approach to successfully cannulate the bile duct.

Under EUS guidance, 3ml of MB was injected into the CBD using a 22G FNA needle, and then the endoscope was exchanged for a duodenoscope. The MB produced a blue dot that was easily seen within an ulcerated lesion on the ampullary mass. Deep biliary cannulation was achieved using a tapered catheter at the site marked by the MB. A palliative metal biliary stent was eventually placed and the patient was discharge home with hospice care.

Several techniques are available to endoscopists in situations of difficult biliary cannulation. Review of the literature has revealed very few cases of MB injection into the pancreatic duct for identification of the minor papilla. However, this appears to be the first case of methylene blue injection into the biliary tree to achieve cannulation.

Methods: N/A
Results: N/A
Conclusion: N/A
Therapeutic EUS-assisted endoscopic retrograde pancreatography after failed pancreatic duct cannulation at ERCP.
Source
Division of Gastroenterology and Hepatology, Indiana University Medical Center, Indianapolis, Indiana, USA.
ABSTRACT BODY:

Purpose: Clinical Presentation: A 45 yo AAF presented with melena and acute anemia 1 week after an endoscopic sphincterotomy and biliary stent placement for bile duct obstruction. An upper GI endoscopy revealed fresh blood and clots in the 2nd portion of the duodenum likely coming from the major papilla. After epinephrine injection, ERCP with selective biliary cannulation and balloon sweeps yielded fragments of stones, clots, and debris. On cholangiogram, a large filling defect was also at the hepatic bifurcation. The patient was discharged several days later in stable condition. The patient returned 3 months later with nausea, vomiting, and abdominal pain consistent with acute pancreatitis with lipase > 14000, ALP>600, and normal bilirubin. An abdominal contrast-enhanced CT scan and ultrasound showed a 3x3 cm mass in the CBD extending into the left and right hepatic ducts with biliary dilation. The patient responded to conservative therapy but extensive investigation was continued to identify the cause of the biliary lesion. ERCP with cholangioscopy as well as EUS with FNA revealed the lesion to be a biliary intraductal papillary mucinous neoplasm (B-IPMN). Given her age and the possible malignant potential of B-IPMNs, the patient was referred for local resection, which was performed successfully.

Methods:

Results: Discussion: B-IPMNs have been increasingly recognized over the last 10 years. Due to common embryologic origins, it was postulated that B-IPMN may behave similarly to pancreatic IPMNs. Others theorized that they may follow a more benign course similar to biliary papillomas. Analysis of histopathologic subtypes and type-specific mucin expression patterns of B-IPMN seem to indicate a closer link to the main duct pancreatic IPMN lesions with associated malignant potential favoring primary resection as the preferred modality of treatment. Several recent studies revealed carcinoma association with B-IPMN lesions ranging between 68-83% with 5 year survival of 38% after resection.

Conclusion: Persistent evaluation of an underlying biliary abnormality first noted during ERCP, then on repeat imaging tests to help explain the source of GI bleeding and acute pancreatitis lead to the diagnosis of a biliary lesion with malignant potential. Biliary IPMN seem to be a unique clinical entity which warrants further evaluation which may lead to better understanding of biliary malignancies.
Joseph Romagnuolo: ACG Member
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AVERAGE SCORE: 3.25
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Rare Cause of Recurrent Pancreatitis

Navneet Kaur

SUNY Upstate Medical University, United States

Purpose: Introduction

Congenital anomalies and variants of pancreas are one of the uncommon causes for pancreatitis and pancreatic divisum is one of them with an incidence rate of three percent. Case

A 32–year-old female was admitted to our institution for abdominal pain, nausea and vomiting for three days . She denied fever, chills or diarrhea. The patient was admitted twice in the past for acute pancreatitis which was thought to be secondary to gall stones and patient got cholecystectomy. She drank alcohol occasionally and had a history of 10 pack years of smoking. Examination revealed normal vital signs, epigastric tenderness to palpation on abdominal exam with no guarding or rigidity. Laboratory values revealed lipase of 2796 and amylase of 292, rest unremarkable. Patient was given bowel rest and was given intravenous fluids with no relief. CT scan abdomen was unremarkable. Secretin enhanced endoscopic ultrasound study was done which was positive for pancreatic divisum and pancreatic stent was placed which relieved her symptoms and patient has been doing fine in last two months of follow up.

Discussion

There are various types of congenital anomalies of pancreas with pancreatic divisum being one of them cause by failure of fusion of ventral and dorsal duct system . The body, tail and head of the pancreas (dorsal pancreas) drain through the Santorini’s duct into the minor papilla while another part of head ( ventral pancreas) drains through Wirsung’s duct into major papilla. Most patients are asymptomatic but relative obstruction to pancreatic exocrine secretory flow through duct of Santorini and minor papilla can cause pancreatitis in few patients. Endoscopic retrograde cholangiopancreatography (ERCP) is the most definitive and reliable diagnostic test for pancreatic divisum. Minor papilla orifice is not evident in one third of cases in which case secretin can be administered intravenously. Endoscopic stenting and sphincterotomy of minor papilla can be an effective therapy. To summarize, our case highlights the need for maintaining a high index of suspicion for congenital anomalies in patients presenting with recurrent pancreatitis.

Methods: N/A

Results: N/A

Conclusion: N/A

AUTH DESIG: ACG Membership Status

Navneet Kaur : ACG Non-Member
Pahul Singh : ACG Non-Member
Aakash Aggarwal : ACG Non-Member
Divey Manocha : ACG Non-Member

ERCP showing pancreatic divisum.
AVERAGE SCORE: 5.25
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Haritha Avula: [No Comments]
James Buxbaum: [No Comments]
Raquel Davila: [No Comments]
Brian Weston: secretin enhanced EUS
ABSTRACT BODY:

Purpose: Case Presentation:

A 51 yo F with GERD presented with a 2 week of nausea, vomiting, and back pain. She had also experienced a 30 lb weight loss with a poor appetite over 2 months period. The patient also developed weakness, malaise, and fever to 102 F. Abdominal CT revealed a large mass arising from the gallbladder fundus with hepatic invasion and questionable colonic and duodenal extension. Moderate intra- and extrahepatic biliary ductal dilatation was also noted. An ERCP with sphincterotomy and balloon sweeps yielded purulent discharge with multiple moderate sized gallstones. The patient continued to experience post-ERCP fevers and mildly increased bilirubin despite IV antibiotics, therefore, definitive surgery was delayed several weeks after prolonged antibiotic course. Open cholecystectomy and partial hepatectomy were performed successfully which revealed a 11x5x5 cm T3 invasive squamous cell carcinoma (SCC) with clear tumor margins. Neoadjuvant chemoradiotherapy was also administered, however, follow up PET scan revealed hypermetabolic activity in the gallbladder fossa, adjacent to the liver and omentum as well as the periportal, peripancreatic, aortocaval, and right supradiaphragmatic lymph nodes.

Methods: -

Results: Discussion:

SCC of the gallbladder is a highly unusual entity. In a large retrospective review, squamous differentiation was only identified in approximately 7% of over 600 gallbladder malignancies. Gallbladder SCC is more common in females (3:1) and encountered in the 4-6th decades of life. Gallbladder SCC frequently appears as thickened or hardened gallbladder walls while only 6% present as polyloid masses. Patients with squamous cell carcinomas were found to have a worsened stage-matched prognosis as compared to those with gallbladder adenocarcinomas. Treatment of choice is radical resection, which resulted in an increased 5 year survival as compared with primary resection (49% vs 8%) in a recent Japanese study.

Conclusion: Conclusion:

SCC lesions of the gallbladder are extremely rare and must be considered with great caution when dealing with filling defects of the gall bladder. Treatment must still focus on radical resection whenever possible as it carries a better survival benefit than primary resection. Chemoradiation therapy must also be considered to improve the prognosis with this deadly disease.

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Poster Only

AUTH DESIG: ACG Membership Status <font color="red">*</font>

Erick Singh : ACG Member
Subbaramiah Sridhar : ACG Member
Sherman Chamberlain : ACG Member

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(no table selected)
AVERAGE SCORE: 3.5
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Purpose: Introduction: Polycystic pancreas disease (PPD) is a rare disease usually associated with polycystic kidney disease (PKD) and polycystic liver disease (PLD). It is even rarer when isolated. These cysts are histologically reported as simple epithelial cysts. Although pancreatic cystic neoplasm has been found associated with PKD, this is usually with isolated cysts. The malignant potential of PPD is unknown, but a prior case report described PKD in association with intraductal papillary mucinous neoplasm (IPMN).

Case 1: An 18-year-old female with a history of autosomal recessive PKD associated with PLD and PPD was seen for chronic abdominal pain and episodes of recurrent acute pancreatitis. CT scan of the abdomen demonstrated complete replacement of the pancreatic parenchyma by multiple cysts, up to 76 mm in greatest diameter, which appeared larger in size compared with prior images. After failed medical therapy, EUS FNA of the largest cysts was attempted to reduce the pain. Cyst fluid cytology was negative, and Tru-Cut biopsies of the cyst walls showed bland cuboidal epithelium. Fluid CEA levels of multiple cysts ranged from 30 to 4480 ng/ml. She eventually underwent total pancreatectomy for pain control. Tissue histology demonstrated simple cuboidal epithelial cells lining the cysts with multiple areas of mucinous metaplasia. Several areas of low grade pancreatic intraepithelial neoplasia (PanIN1) were identified in branch ducts within adjacent pancreatic parenchyma.

Case 2: A 60-year-old female was seen for serial findings on CT scans of the abdomen demonstrating progressive multiple tiny cysts scattered throughout the pancreas. She did not have PKD or PLD. EUS FNA was negative for mucin or abnormal cytology, and showed cyst fluid CEA levels less than 20. Imaging characteristics were indeterminate for malignancy. She underwent distal pancreatectomy because of the clinical concern for branch duct IPMN, with plan for surveillance of the pancreatic head. Tissue histology demonstrated single layers of simple benign epithelial cells lining cysts. Some areas of mucinous metaplasia were also present in the cysts. Many PanIN1 lesions were identified within branch ducts in adjacent pancreas.

Discussion: PPD may occur in isolation, or in association with PKD and PLD. The pancreatic cysts of PPD are lined by simple cuboidal epithelium. Both of these cases also showed mucinous metaplasia in the epithelial lining of the cyst which histologically mimics PanIN1A, as well as PanIN1 lesions in adjacent pancreas branch ducts. This suggests a possible association between PPD and both IPMN and PanIN.

Methods: N/A
Results: N/A
Conclusion: N/A
Haritha Avula: [No Comments] James Buxbaum: [No Comments] Raquel Davila: [No Comments] Brian Weston: case no 2 management of distal pancreatectomy controversial to me in absence of description of dominant cyst or suspicious cytology. Multiple tiny cysts throughout the pancreas described.
Purpose: An 82-year-old female presented with fever and right upper quadrant pain three days prior to admission. Liver function tests revealed total bilirubin of 11, direct bilirubin of 6.5, aspartate aminotransferase (AST) 98, alanine aminotransferase (ALT) 95, and alkaline phosphatase 440. Magnetic resonance cholangiopancreatography (MRCP) revealed dilated common bile duct (CBD) with mild to moderate intrahepatic and extrahepatic dilatation. An emergent endoscopic retrograde cholangiopancreatography (ERCP) performed for suspected acute cholangitis revealed filling defects in the CBD, treated with endoscopic sphincterotomy, balloon extraction of small stone, and stent placement. Two months later, the patient was referred for stent removal and definitive treatment of the CBD filling defect. Repeat ERCP was done, stent was removed with balloon sweeping of CBD, which revealed polypoid tissue with some bleeding from the CBD. A 7 Fr by 4 cm double pigtail plastic stent was placed, and the specimen was sent for biopsy, which revealed biliary papillomatosis with no evidence of malignancy.

Biliary papillomatosis is a condition in which papillary proliferation of the dysplastic biliary epithelium occurs on a delicate fibro-vascular stalk. This diagnosis should be highly considered in the setting of cholangitis with CBD filling defect on imaging. This rare entity has a high malignant potential and is considered an equivalent of intraductal papillary mucinous neoplasm (IPMN) of pancreas. Definitive diagnosis can be made by direct visualization using a cholangioscope.

Methods: N/A

Results: N/A

Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Oral or Poster

Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: No
FDA Approval: No
Designed Study: Investigator

AUTH DESIGN: ACG Membership Status

Sowjanya Kanna: ACG Member
Usman Khan: ACG Non-Member
Mohammad Choudhry: ACG Non-Member
Robert Aaron: ACG Member
Yuriy Tsirlin: ACG Member
Kadirawel Iswara: ACG Member
CBD filling defect

Polypoid tissue within CBD

**IMAGE CAPTION:** CBD filling defect  Polypoid tissue within CBD

(no table selected)

**AVERAGE SCORE:** 3.75

**REVIEWER FLAGS:** (none)

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**
ABSTRACT BODY:

Purpose: Introduction: Limy bile syndrome (LBS) is a rare condition in which the gallbladder and rarely the bile ducts are filled with a thick paste like radiopaque material. It is caused by calcium carbonate precipitation containing 33.7 – 91.6% calcium carbonate in bile. When it extends into the common bile duct (CBD), it causes biliary obstruction. We report a case of obstructive jaundice caused by LBS, which was managed successfully with endoscopic retrograde cholangiopancreatography (ERCP), endoscopic sphincterotomy (EST) and laparoscopic cholecystectomy. Case Report: A 47 year old man with no significant past medical history presented to the hospital with worsening RUQ pain and obstructive jaundice. Computed tomography (CT) showed fluid-fluid level with radiopaque material in the gallbladder, extending into the common bile duct and second part of the duodenum, with minimal intrahepatic and extrahepatic biliary ductal dilation. No pericholecystic stranding, gallbladder wall thickening or pericholecystic fluid were found. This finding was consistent with LBS of the gallbladder and biliary tree. ERCP with EST was performed. Multiple clots of limy bile were extracted during balloon sweeps in an attempt to clear the extrahepatic ducts. His hepatic panel improved significantly after ERCP. He subsequently underwent laparoscopic cholecystectomy. Repeat hepatic panel normalized in 4 weeks. Conclusion: LBS is diagnosed with abdominal CT with typical “milk of calcium bile” appearance. This condition should be differentiated from porcelain gall bladder, in which calcification of the gallbladder wall is present and also from vicarious excretion of contrast from recent intravenous contrast injection. It is generally associated with lithiasis in the neck of the gall bladder, in the cystic duct and /or in the common bile duct. Presence of limy bile in the bile duct is attributed to migration of small impacted stones from the cystic duct or neck of the gallbladder, followed by passage of the calcareous material from the gall bladder to the common bile duct. Biliary malignancy may be hidden in the presence of LBS and majority of patients with LBS have coexisting chronic cholecystitis or cholelithiasis. Successful treatment can be achieved with ERCP /ES and laparoscopic cholecystectomy as was done in this case.

Methods: N/A
Results: N/A
Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Poster Only
ACG Research Grant Support: No
Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: No
FDA Approval: No
Designed Study: Investigator
Abstract Author: Investigator

AUTH DESIG: ACG Membership Status <font color="red">*</font>
Weiming Yan : ACG Member
Vickie Williams : ACG Non-Member
Swati Pawa : ACG Member
(No Image Selected)
(no table selected)
AVERAGE SCORE: 4.25
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Sita Chokhavatia: [No Comments]
Waqar Qureshi: [No Comments]
Bo Shen: interesting one
Marc Zuckerman: [No Comments]
Purpose: Pancreatico-peritoneal fistula is a rare and clinically challenging cause of recurrent ascites. We report a patient with recurrent ascites secondary to a pancreatic duct leak, and its successful treatment using Coseal® surgical sealant delivered endoscopically.

Case Report: A 42 year old male with a history of alcoholism and presumed alcoholic cirrhosis, presented with worsening ascites, abdominal pain, weight loss and anorexia. One month prior, the patient underwent outpatient paracentesis, and was started on a diuretic regimen of spironolactone 100mg and furosemide 40mg daily. On physical exam, he was febrile and cachectic, with abdominal protuberance and tenderness. Laboratory tests revealed WBC 17.8 K/uL, albumin 2.8 g/dL, total bilirubin 0.9 mg/dL, direct bilirubin 0.4 mg/dL, alkaline phosphatase 161 U/L, AST 75 U/L and ALT 40 U/L. Paracentesis indicated bacterial peritonitis (5,167 WBC/uL, 99% PMNs), and intravenous cefotaxime was initiated. Despite antibiotics, the leukocytosis and symptoms persisted. CT scan revealed three pancreatic pseudocysts, scattered pancreatic calcifications and a 5mm pancreatic duct in the tail, along with large ascites but no evidence of cirrhosis. Subsequent large volume paracentesis revealed elevated ascitic fluid amylase (43,869 U/L), and cultures isolated Pseudomonas aeruginosa. Given the CT findings and the high ascitic fluid amylase, the diagnosis of a pancreatico-peritoneal fistula was suspected. ERCP revealed a moderate pancreatic duct stenosis in the body with a small stone proximal to the stricture, as well as a pancreatic duct leak originating from the tail. A 7Fr x 11cm straight pancreatic stent was successfully placed and antibiotic coverage with imipenem was maintained, yet the patient’s symptoms and ascites with high amylase content persisted. Repeat ERCP re-demonstrated extravasation of contrast from the pancreatic tail. Coseal® surgical sealant was then injected through a catheter into the tail of the pancreatic duct for closure, and an 8.5Fr x 14cm pancreatic stent was placed. Within days, the patient’s symptoms improved, and he remains stable at 3 months after fistula closure.

Conclusion: Ascites from a pancreatico-peritoneal fistula is rare, and it poses a significant diagnostic and therapeutic challenge. Given the patient’s alcohol history, the true etiology of his ascites and peritonitis was initially misdiagnosed. Once properly recognized, the pancreatico-peritoneal fistula was successfully closed by applying a surgical sealant delivered endoscopically.

Methods: N/A
Results: N/A
Conclusion: N/A
AVERAGE SCORE: 4
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Sita Chokhavatia: [No Comments]
Waqar Qureshi: [No Comments]
Bo Shen: good one for injection of surgical sealant
Marc Zuckerman: [No Comments]
Hemosuccus Pancreaticus – A Rare Cause of Gastrointestinal Bleeding.

INTRODUCTION

Hemosuccus pancreaticus is a rare cause of GI bleeding. The bleeding varies from intermittent occult bleeding to massive acute hemorrhage, which may be difficult to diagnose. We present a case of hemosuccus pancreaticus with challenging endoscopic and radiologic features.

CASE

An 83-y.o. woman with a history of chronic pancreatitis had multiple admissions for recurrent pancreatitis and GI bleeding over 2 years. Multiple EGDs, a bleeding scan, a capsule endoscopy, and a colonoscopies showed no etiology for her bleeding. She presented a fifth time with pancreatitis and bleeding. Contrast CT showed irregular thickening of the pancreas with multiple calcifications and inflammatory changes around the pancreatic tail. There was new dilation of the pancreatic duct (PD) to 10 mm, felt secondary to a 9-mm calcification obstructing the PD in the head. Also, a 1.1-cm, hyperenhancing, oval focus in the pancreatic tail was seen. EGD and colonoscopy were again unrevealing. The enhancing tail mass was diagnosed as a pseudoaneurysm, but angiography showed no pseudoaneurysm. It was felt to have thrombosed. She was transfused and discharged home with plans for ERCP to remove the obstructing calcification in the head.

Two months later she was admitted for abdominal pain. Abdominal CT showed resolution of the prior enhancing pancreatic tail mass and dilated PD, and the pancreatic head calcification was not present. She developed hematemesis and massive bleeding per rectum, and hemorrhagic shock. EGD showed fresh blood with no obvious source. Repeat EGD with a duodenoscope, showed blood gushing from the major papilla consistent, with hemosuccus pancreaticus. Repeat angiography demonstrated a distal splenic artery pseudoaneurysm hemorrhaging into the pancreatic duct. Coil embolization of the pseudoaneurysm stopped the bleeding and the patient recovered. At 3-month follow up she has had no recurrent bleeding.

DISCUSSION

Hemosuccus pancreaticus, or bleeding from the pancreatic duct, is a rare cause of GI bleeding. The cause is usually an aneurysmal dilation of an artery (splenic, hepatic, gastroduodenal, or pancreaticoduodenal) adjacent to an area of pancreatic injury (1). Our patient had chronic pancreatitis with recurrent acute pancreatitis and a resultant pseudoaneurysm of the splenic artery. This bled intermittently into the pancreatic duct causing massive hemorrhage. Coil embolization can achieve definitive hemostasis (2). Surgery is often reserved for situations not amenable to radiologic intervention (1).

CONCLUSION

In cases of obscure upper GI hemorrhage, especially in patients with prior pancreatic injury, the diagnosis of hemosuccus pancreaticus should be considered (3).

Methods: N/A
Results: N/A
Conclusion: N/A

CURRENT CATEGORY: G. Clinical Vignettes/Case Reports
CURRENT SUB-CATEGORY: C. Pancreatic/Biliary
PRESENTATION TYPE: Poster Only
ACG Research Grant Support: No
Supported by Industry Grant: No
Commercial Products or Services: No
Initiated Research: Investigator
Financial Relationships: No
FDA Approval: No
Designed Study: Investigator
Author: Investigator

AUTH DESIG: ACG Membership Status <font color="red">*</font>:
Iheanyichukwu Ogu : ACG Non-Member
Rony Ghaoui : ACG Non-Member
David Desilets : ACG Member
(No Image Selected)
(no table selected)

AVERAGE SCORE: 4.5
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None

REVIEWER COMMENTS:
Sita Chokhavatia: [No Comments]
Waqar Qureshi: [No Comments]
Bo Shen: [No Comments]
Marc Zuckerman: [No Comments]
ABSTRACT BODY:

Purpose: A 48-year-old African-American man presented with 6 months of left upper quadrant (LUQ) abdominal pain and weight loss. His history was significant for type 2 diabetes. On physical exam, the abdomen was tender to palpation in the LUQ. Blood counts, chemistry and hepatobiliary tests were within normal limits. CT of the abdomen showed a heterogenous pancreatic head, distal atrophy, pancreatic ductal dilation of 7 mm, dilated portal and splenic veins, and choledochoele. After pain was controlled, he was discharged with outpatient follow-up. A month later, he was admitted for hematemesis. He had mild anemia, transaminitis (ALT 125, AST 220), with normal coagulation and pancreatic enzymes. EGD showed thickened stomach folds, without varices or active bleeding. MRI revealed nodular enhancement throughout the pancreatic parenchyma, communicating with splenic vein and portal veins, suspicious for pancreatic arterio-venous malformation (AVM). A 1.8 cm choledochal cyst communicating with the 2nd portion of the duodenum and 1 cm choledochocele were found in the head of the pancreas. Dense material in the cyst was suspicious for bleeding. EUS showed collateral vessels from the head to the tail of the pancreas and 2.6 choledochal cyst communicating with the distal common bile duct and duodenal wall. ERCP revealed a type III choledochal cyst with a fistulous connection to the duodenum above the ampulla and no evidence of active bleeding. Abdominal angiogram confirmed the diagnosis of pancreatic AVM supplied by the superior mesenteric and celiac arteries, with early filling of a dilated portal vein. Transjugular liver biopsy showed mild fibrosis and glycogenated hepatocytes. Right hepatic vein pressure was 21 mm Hg, with wedge of 24 mmHg and gradient of 3 mmHg, which was not consistent with portal hypertension. He was managed symptomatically. At 6 months of follow up, pain is well-controlled without recurrence of GI bleeding.

Pancreatic AVM is a rare vascular anomaly in which blood flows from the arterial system directly into the portal venous system without passing through the capillaries in the pancreas. Though it can be asymptomatic, it can also present as abdominal pain, GI bleeding, portal HTN and pancreatitis. Our patient had abdominal pain and GI bleeding. The mechanism of bleeding in our patient was likely from erosion of the AVM in the choledochal cyst. Portal hypertension was ruled out by hepatic venous pressure measurement, and no varices were found in EGD. While the diagnostic study of choice has been angiography, noninvasive studies such as EUS, CT, and MRI may assist in diagnosis.
AVERAGE SCORE: 4.5
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Sita Chokhavatia: [No Comments]
Waqar Qureshi: [No Comments]
Bo Shen: very interesting case
Marc Zuckerman: [No Comments]
Purpose: Leiomyosarcoma (LMS) is a tumor arising from the skeletal muscle. Metastases to the pancreas is rare and most commonly due to primary renal cell carcinoma, malignant melanoma or lung cancer. We present a patient with pancreatic metastases from LMS which was diagnosed with EUS-guided fine needle aspiration (FNA).

A 65 year-old woman was diagnosed with high-grade retroperitoneal LMS in September 2002. She underwent surgical resection followed by adjuvant chemotherapy. Pancreas was normal on cross-sectional imaging at the time of diagnosis. Metastatic disease was seen in the lung (2005) and also in thigh (2010) which were surgically resected. In 2011, restaging CT demonstrated a lesion in the body of the pancreas. An MRI confirmed the pancreatic lesion and further showed a smaller lesion in the tail of the pancreas (Figure 1). EUS demonstrated an irregular 22 mm x 18 mm lesion in the body of the pancreas; however no lesion was seen in the tail of the pancreas. The pancreatic lesion was further evaluated by EUS-FNA with confirmation of metastatic LMS. She underwent distal pancreatectomy with splenectomy. The gross tissue specimens confirmed a 3.2 x2.1 cm fleshy lesion in the body of pancreas and a 0.6 cm lesion in the tail, both of which metastatic LMS. The patient has been tumor free at the time of last follow up (one year after distal pancreatectomy).

Discussion: Metastatic pancreatic disease constitutes about 2% of all pancreatic malignancies. There are very few reports about pancreatic metastases from LMS. Although the pancreas is a retroperitoneal organ and is located in close proximity to the primary lesion, the above case demonstrates unpredictable lesion characteristics with pancreatic metastases occurring nearly 9 years after primary diagnosis succeeding metastases to distant regions like lungs and lower extremities. A high index of suspicion is needed with unusual pancreatic findings in patients with other primary malignancies. When feasible, surgical excision of the pancreatic metastases is an effective treatment strategy. The report highlights the utility of EUS to detect and diagnose metastatic lesions to the pancreas.

Methods: na
Results: na
Conclusion: na

Figure 1: T2 image showing enhancing 2.8 cm mass in the body of pancreas with an additional lesion in tail (not shown in this image) and otherwise normal looking pancreas.
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None

REVIEWER COMMENTS:
Sita Chokhavatia: [No Comments]
Waqar Qureshi: [No Comments]
Bo Shen: interessing
Marc Zuckerman: [No Comments]
ABSTRACT BODY:

Purpose: Introduction: MCC is a rare cancer which originates from the neurocutaneous mechanoreceptors, the Merkel cells, located in the epidermis. Incidence is 0.4/100,000 per year. MCC is an aggressive tumor with frequent regional nodal involvement at presentation. However, only 2% of patients present with stage IV disease. We describe 4 cases of MCC involving the pancreas.

Case Series: 4 male patients with ages ranging between 51 to 74 years with MCC were found to have metastases involving the pancreas. The site of origin of the primary tumor and the site of pancreatic metastases have been described in Table 1. All our patients had undergone resection of the primary tumor with radiotherapy. Case 1 had developed metastatic disease involving the stomach and a EUS showed hypoechoic mass in the pancreas. He had also received chemotherapy before these metastases were diagnosed. EUS-FNA confirmed it to be MCC on histopathology. Further, he declined therapy and died of refractory disease 9 months after pancreatic FNA. Case 2 had involvement of multiple lymph node groups managed with chemo-radiation. He then developed obstructive jaundice caused by a pancreatic mass. He underwent EUS-FNA biopsy of the pancreas(Figure 1) to confirm the metastasis. He had an ERCP (Endoscopic Retrograde Cholangiopancreatography) with biliary drain placement but eventually developed peritoneal disease. Case 3 had developed multiple recurrence of the cancer at the primary site and later involved the liver, pancreas and adrenals. He developed obstructive jaundice managed by ERCP and biliary stent placement. Case 4 had developed metastases to brain and then developed obstructive jaundice and presented to emergency room with hematemesis from ulcerated gastric metastasis. He was found to have a pancreatic metastatic lesion and an ERCP with biliary stent was placed. He died 2 months after pancreatic disease was documented.

Conclusion: The pancreas is an uncommon site for metastatic MCC. EUS can be useful in distinguishing metastatic MCC from pancreatic primary.

Table 1: Clinical Case Information

<table>
<thead>
<tr>
<th>Case</th>
<th>Primary Site</th>
<th>Pancreatic Involvement</th>
<th>Additional Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stomach</td>
<td>Hypoechoic mass</td>
<td>Stomach, liver</td>
</tr>
<tr>
<td>2</td>
<td>Multiple LN</td>
<td>EUS-FNA biopsy</td>
<td>Liver, pancreas</td>
</tr>
<tr>
<td>3</td>
<td>Multiple LN</td>
<td>ERCP with stent</td>
<td>Liver, pancreas</td>
</tr>
<tr>
<td>4</td>
<td>Brain</td>
<td>ERCP with stent</td>
<td>Stomach</td>
</tr>
<tr>
<td>Case No.</td>
<td>Age (in years)</td>
<td>Primary Site</td>
<td>Location in Pancreas</td>
</tr>
<tr>
<td>---------</td>
<td>----------------</td>
<td>--------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>1</td>
<td>51</td>
<td>Right Inguinal</td>
<td>Head (3), Neck (1), Tail (1)</td>
</tr>
<tr>
<td>2</td>
<td>70</td>
<td>Medial Canthus of Left Eye</td>
<td>Head (1), Body (1), Tail (1)</td>
</tr>
<tr>
<td>3</td>
<td>74</td>
<td>Scalp of Vertex</td>
<td>Body (1)</td>
</tr>
<tr>
<td>4</td>
<td>70</td>
<td>Right Inguinal</td>
<td>Diffuse (Multiple)</td>
</tr>
</tbody>
</table>

**TABLE TITLE:** Table 1: Clinical Case Information

**AVERAGE SCORE:** 4.75

**REVIEWER FLAGS:** Bo Shen - Newsworthy?: 1
Marc Zuckerman - Newsworthy?: 1

**REVIEWER RECOMMENDATION CODE DESCRIPTION:** None

**REVIEWER COMMENTS:**
Sita Chokhavatia: [No Comments]]
Waqar Qureshi: [No Comments]]
Bo Shen: Interesting series]
Marc Zuckerman: [No Comments]
Purpose: Introduction
The systemic complications of acute pancreatitis are myriad and are mostly a consequence of systemic inflammatory response. Isolated portal and superior mesenteric vein thrombosis are well recognized complications of acute pancreatitis while thrombosis involving the inferior vena cava (IVC) is extremely rare.

Case Report
A 79 year old male with history of chronic alcoholism presented with upper abdominal pain of three weeks duration. Initial evaluation revealed epigastric tenderness and a serum lipase level of 1041 U/L. Abdominal computerised tomography showed inflammatory stranding in the pancreatic head, 7mm pancreatic duct calculus and punctate calcifications in the pancreatic body suggestive of acute on chronic pancreatitis. He also had a pancreatic pseudocyst and 3.4 cm thrombosis in the IVC above the level of right renal vein with 60% luminal obstruction. He was started on intravenous heparin. He developed abdominal distension and a fall in the hematocrit in the next two days. Repeat imaging revealed hemorrhage into the pseudocyst with probable rupture into the peritoneal cavity. Anticoagulation was stopped and he was conservatively managed with blood transfusion. An IVC filter was placed. The workup for hypercoagulable state including factor V Leiden mutation, prothrombin gene mutation and activity of protein C, protein S and antithrombin III was unremarkable. An ERCP done later showed pancreatic duct stricture with calculus that was not amenable to endoscopic treatment. He is on follow-up and is doing symptomatically well.

Discussion
Venous thrombosis occurring outside the splanchnic circulation is very rarely described in pancreatitis. Release of pancreatic proteolytic enzymes due to acute inflammation is the most likely mechanism responsible for thrombosis of the splenic, portal and superior mesenteric veins. IVC thrombosis can result from systemic inflammatory response with hypercoagulable state or a pancreatic cyst that compresses or penetrates the IVC. Pulmonary thromboembolism is a potential cause of mortality and morbidity in patients with IVC thrombosis, hence early recognition of this complication is vital. There are isolated reports of patients with acute pancreatitis and extra-splanchnic venous thrombosis who have been successfully treated with anticoagulation. In the setting of a pancreatic pseudocyst, anticoagulation is fraught with danger as it can result in hemorrhage into the cyst as described in our case. IVC filter placement is a good alternative in patients who cannot undergo anticoagulation or develop bleeding after anticoagulation. Literature regarding the optimal strategy and the duration of anticoagulation in these patients is minimal.

Methods: N/A
Results: N/A
Conclusion: N/A
Atul Palkar : ACG Non-Member
Satya Allaparthi : ACG Non-Member
Curuchi Anand : ACG Member
(No Image Selected)
(no table selected)

**AVERAGE SCORE**: 4.75
**REVIEWER FLAGS**: (none)
**REVIEWER RECOMMENDATION CODE DESCRIPTION**: None

**REVIEWER COMMENTS**:
Sita Chokhavatia: [No Comments]
Waqar Qureshi: [No Comments]
Bo Shen: [No Comments]
Marc Zuckerman: [No Comments]
An 86-year-old female with a past medical history of choledocholithiasis and ERCP with stent placement a year ago, presented with jaundice for 1 week. Lab tests revealed an obstructive LFT pattern with abdominal imaging suggestive of a CBD stent without pneumobilia. A presumptive diagnosis of CBD stent obstruction was made and an ERCP was performed. During ERCP the previously placed CBD stent was visualized at the ampulla. A precut sphincterotomy was performed to gain access to the bile duct after which the old stent was removed. Cholangiogram revealed a dilated CBD of 2 cm with an oval 3 cm central filling defect [image 1]. A mechanical lithotriptor was used in an attempt to crush the stone, which resulted in the lithotriptor being impacted over the stone. At this point, a lithotriptor compatible salvage device was used to attempt to break the basket; however the central wire of the basket fractured at the handle. Another attempt to break the basket yielded the same result, leaving the basket intact over the stone. At this point using a duodenoscope a rat tooth forceps was advanced into the bile duct to grasp and break one of the basket wires at the metal tip, successfully disengaging the basket from the stone [image 2]. The basket was retrieved and a pigtail stent was placed in the CBD to allow for drainage of the bile duct.

An impacted lithotripsy basket is a rare complication of mechanical lithotripsy. Salvage devices are often the first line approach in the management of an impacted basket however management options are limited when the salvage device fails as seen in this case. Extracorporeal shock wave lithotripsy, intracorporeal electrohydraulic lithotripsy, and tipping the basket tip using a second basket have all been described as nonsurgical methods to retrieve an impacted basket. However most of these rescue procedures are not readily available. Our purpose in presenting this case is to highlight a simple yet innovative method of management of an impacted basket when a salvage device has failed.

Methods: N/A
Results: N/A
Conclusion: N/A

AUTH DESIGN: ACG Membership Status <font color="red">^</font>:
Ava Anklesaria : ACG Member
Vadim Abramov : ACG Member
Nnaemeka Anyadike : ACG Member
Ira Mayer : ACG Member
Kadirawel Iswara : ACG Member
Rabin Rahmani : ACG Member
Title: Metastatic Pancreatic Adenocarcinoma Presenting as a Large Bowel Obstruction

Presenter: Jonathan Parrack

Presenter (Institution Only): Valley Hospital Medical Center

Presenter (Country Only): United States

Abstract Body:

Purpose: A 71-year-old woman presented from an outside institution after being diagnosed with a sigmoid obstructive mass on CT scan. A Hartmann’s procedure was performed prior to gastroenterology consultation. At this time, the surgical pathology had not been reported, and tumor markers were still pending. An initial CT scan showed a dilated common bile duct at 15 mm. MRCP showed mild biliary ductal dilatation, without an obvious cause. Throughout her work-up, LFTs remained normal. Labs revealed a CA 19-9 of 2662 (Normal range 0-37). An ERCP was attempted, however the ampulla was located within a large duodenal diverticulum, preventing deep cannulation. A thin slice CT of the pancreas was then ordered, which revealed a heterogenous appearing pancreatic body and tail with abnormal soft tissue along the retroperitoneum encasing the celiac axis origin and the superior mesenteric artery. There was also presence of splenic vein occlusion with numerous left upper quadrant varices, as well as diffuse biliary ductal dilatation with a transition point near the level of the ampulla. At this time, surgical pathology resulted as a moderately differentiated adenocarcinoma extending through the bowel wall into the subserosa, but sparing the mucosal layer, suggesting it was metastatic. EUS was performed and revealed a large hypoechoic mass in the neck of the pancreas measuring 2.3 x 2.4 cm with involvement of the celiac and superior mesenteric arteries. Both the mass and a large celiac lymph node were biopsied, and FNA cytology confirmed pancreatic adenocarcinoma within both. This is a rare presentation of metastatic pancreatic adenocarcinoma with metastasis to the sigmoid colon presenting as a large bowel obstruction.

Methods: N/A

Results: N/A

Conclusion: N/A

Current Category: G. Clinical Vignettes/Case Reports

Current Sub-Category: C. Pancreatic/Biliary

Presentation Type: Oral or Poster

ACG Research Grant Support: No

Supported by Industry Grant: No

Commercial Products or Services: No

Initiated Research: Investigator

Financial Relationships: No

FDA Approval: No

Designed Study: Investigator

Abstract Author: Investigator

AUTH DESIG: ACG Membership Status *<font color="red">*</font>:

Jonathan Parrack : ACG Member
Sanjay Nayyar : ACG Member
Manmeet Padda : ACG Member

EUS view of the pancreatic neck mass
IMAGE CAPTION: EUS view of the pancreatic neck mass
(no table selected)
AVERAGE SCORE: 4.75
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Purpose: A 43 year old Caucasian woman with a medical history significant for obesity was evaluated for intermittent right upper quadrant abdominal pain for several months. Abdominal ultrasound showed gallstones and a dilated common bile duct of 9 mm. Laboratory studies showed elevated transaminases. An initial endoscopic retrograde cholangiopancreatogram (ERCP) was performed for suspected choledocholithiasis. Selective common bile duct cannulation was unsuccessful, and due to several pancreatograms, a prophylactic 5 Fr x 3 cm non flanged single pigtail pancreatic duct stent was placed. However, upon deployment, the stent migrated proximally into the pancreatic duct. She developed post ERCP pancreatitis without complications. A repeat ERCP was performed one month later but retrieval of the stent was unsuccessful despite multiple balloon catheter sweeps with an 8.5 mm balloon. Subsequently, another ERCP was performed with the same difficulty in retrieving the pancreatic duct stent, despite use of additional accessories. A repeat ERCP was performed one month later, during which the pancreatic duct stent was found to be lodged between genu and proximal body of pancreas (Figure). Retrieval was once again unsuccessful. The patient was referred to a pancreateobiliary surgeon and underwent a laparoscopic central pancreatectomy with stent removal and pancreaticogastrostomy. Proximally migrated pancreatic duct stents are a rare complication of ERCP and have an incidence of about 2 to 5 %. Risk factors include chronic pancreatitis, Sphincter of Oddi dysfunction, use of long pancreatic stents and probably most importantly, operator dependent factors such as lack of experience. Management of these proximally migrated stents is generally anecdotal but includes use of endoscopic retrieval devices, including interventional cardiology accessories. When these measures fail, surgical management is warranted. Surgical operations described include distal pancreatectomy, central pancreatectomy and pancreatotomy with reconstruction. Good communication between the endoscopist and surgeon should be established after the first or second failed ERCP. The patient had an unremarkable post operative course without further symptoms.

Methods: N/A
Results: N/A
Conclusion: N/A
REVIEWER RECOMMENDATION CODE DESCRIPTION: None

REVIEWER COMMENTS:
Sita Chokhavatia: [No Comments]
Waqar Qureshi: [No Comments]
Bo Shen: [No Comments]
Marc Zuckerman: [No Comments]
Purpose: Elevated liver function tests are the most common reason for consultation to a hepatology service, the etiologies of which are varied but most commonly are due to viral hepatitis, toxic and ischemic injuries. Obstruction due to biliary stones are also a common etiology as well, but we present a more rare case of biliary obstruction that resulted in elevated liver function tests and has a higher incidence of carcinoma.

Case Report:
A 48 year old female with no past medical history presents with one month history of gradual yellowing of her eyes and skin. Also noted decreased appetite, increasing pruritus and some subjective weight loss. She denied any abdominal pain, nausea, vomiting or signs of gastrointestinal bleeding as well as fevers or chills. She has never experienced this prior.

On exam, her vital signs were normal but she had overt jaundice as well as scleral icterus. She had mild tenderness to palpation in the right upper quadrant but negative Murphys. Admission labs revealed a total bilirubin of 14.1 with a direct bilirubin of 10.3. Her AST and ALT were elevated to 112 and 78 respectively as well as an alkaline phosphatase elevation to 308. Her amylase and lipase were mildly elevated to 146 and 168 respectively. Workup included negative hepatitis serologies and autoimmune panel among other tests.

An MRCP was performed which showed a large obstructing cystic duct stone compressing against the common bile duct (CBD) with subsequent biliary tree dilation. An ERCP was performed which confirmed these findings and a CBD stent was placed with effective biliary drainage. She subsequently went for a cholecystectomy. However one month later she presented again with weight loss, jaundice and was subsequently diagnosed with cholangiocarcinoma after ERCP and further surgical evaluation.

Discussion:
Mirrizzi syndrome is a rare disorder for which the indication for cholecystectomy is < 1%. It is characterized by two different classifications (Csendes or McSherry) based on the presence of and the extent of a cholecystocholedochal fistula. The diagnosis can be made preoperatively with MRCP or ERCP but often they are diagnosed intraoperatively. The ultimate treatment is surgical cholecystectomy but an ERCP with stent placement can be a temporizing measure.

One lesser known association of Mirrizzi is that there is a higher incidence of gallbladder carcinoma, in one study up to 27%. Thus it is imperative to send the specimen for pathology to evaluate for malignancy and to also expedite any cases of Mirrizzi Syndrome for surgical resection. To date, we report the only case of Mirizzi associated with cholangiocarcinoma.
Abstract Author: Investigator

AUTH DESIG: ACG Membership Status <font color="red">*</font>:
Nirupama Bonthala : ACG Member
Sajiv Chandradas : ACG Non-Member
Takeshi Saito : ACG Member
(No Image Selected)
(no table selected)

AVERAGE SCORE: 5

REVIEWER FLAGS: (none)

REVIEWER RECOMMENDATION CODE DESCRIPTION: None

REVIEWER COMMENTS:
Purpose: Since its development, atazanavir has gained wide acceptance as an effective protease inhibitor for both treatment-naïve and treatment-experienced HIV patients. A notable adverse effect of atazanavir is the laboratory finding of unconjugated hyperbilirubinemia without clinical jaundice. However, patients may develop jaundice if they have inherited defects in the conjugation of bilirubin. We present a case of the onset of jaundice in a HIV patient started on atazanavir, which led to a diagnosis of Gilbert's syndrome.

A 38-year-old male with a recent diagnosis of HIV was initiated on an anti-retroviral therapy regimen that included the protease inhibitor, atazanavir. After one day of starting treatment he presented to the hospital with the chief complaint of jaundice. The patient denied any previous episodes of jaundice. He also denied any recent fevers, chills, and abdominal pain. Examination was unremarkable except for scleral icterus and a yellow discoloration of the skin. Laboratory results included a markedly elevated total bilirubin of 9.9, and a conjugated bilirubin of 2.3. Liver function tests including AST, ALT, and alkaline phosphatase were all within normal limits. With an onset of clinical jaundice with unconjugated hyperbilirubinemia atazanavir was immediately discontinued. Termination of atazanavir led to a steady decrease in bilirubin and eventual normal levels were seen at the time of discharge. As an outpatient, genetic testing was performed which revealed decreased functional levels of UDP-glucuronosyltransferase 1A1 (UGT1A1), consistent with Gilbert's syndrome.

Gilbert's syndrome is a benign hereditary condition with a prevalence of approximately 5% in the United States. Due to a decrease in the activity of the enzyme glucuronosyltransferase there usually is a mild increase in unconjugated bilirubin. Interestingly, in our case the patient did not have any bilirubin abnormalities prior to initiation of atazanavir therapy. In Gilbert's syndrome periods of stress or fasting are the usual precipitants for jaundice. However, in our case atazanavir was clearly shown to be an inciting factor for the onset of jaundice. Atazanavir commonly leads to a mild unconjugated hyperbilirubinemia because of a competitive inhibition for UGT1A1. The patient had a more dramatic presentation with jaundice and highly elevated bilirubin levels because of his pre-existing defect in the bilirubin conjugation secondary to Gilbert's syndrome. Both atazanavir and Gilbert's syndrome are characterized by their seemingly innocuous elevation in unconjugated bilirubin. However, the clinician should be aware that a combination of both could lead to a dramatic onset of jaundice.

Methods: N/A
Results: N/A
Conclusion: N/A
Benyam Alemu : ACG Non-Member
Ladan Ahmadi : ACG Non-Member
(No Image Selected)
(no table selected)
AVERAGE SCORE: 3.5
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Purpose: A 44 year old man with past medical history of alcohol abuse presented to the ER with a complaint of three episodes of hematemesis and two episodes of syncope in the two days preceding presentation. Initial hemoglobin was 3.5 mg/dL, heart rate was 120 beats per minute, and systolic blood pressure was approximately 70 mm/Hg. Emergent EGD displayed what appeared to be a gastric varix with overlying fibrin clot. CT of the abdomen displayed chronic pancreatitis and a splenic artery pseudoaneurysm (SAPA). The patient underwent CT angiography and the SAPA was treated via transcatheter arterial embolization (TAE).

Only 160 cases of SAPA have been reported in the literature. Chronic pancreatitis is the leading etiology. Rupture of a SAPA can lead to rapid exsanguination and is associated with 90% mortality rate when untreated. EGD remains the procedure of choice in a patient with hematemesis, however, a SAPA is not likely to be visible on EGD. Our case is unique in that the SAPA was immediately visible on EGD. This case champions the early use of CT angiography when EGD can not elicit the cause of upper GI bleeding. Prior to the advent of interventional radiology, surgery was the only treatment for SAPA. Currently, TAE is the recommended treatment for those patient's hemodynamically stable enough to undergo the procedure. The success rate for management of a SAPA with TAE is approximately 85% and carries a minimal risk of complication. Size of the SAPA has not been shown to be a determinant of likelihood of rupture, thus, when discovered, a SAPA warrants treatment regardless of size or symptoms.

Methods: N/A
Results: N/A
Conclusion: N/A

The ruptured SAPA as seen on EGD with overlying fibrin clot
The SAPA as seen on CT angiography

IMAGE CAPTION: The ruptured SAPA as seen on EGD with overlying fibrin clot The SAPA as seen on CT angiography
AVERAGE SCORE: 4.75
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS:
Sita Chokhavatia: [No Comments]
Waqar Qureshi: [No Comments]
Bo Shen: [No Comments]
Marc Zuckerman: [No Comments]
Metastatic Small Cell Lung Carcinoma Masquerading as Recurrent Acute Pancreatitis

A 57 y.o. Caucasian female was referred to the gastroenterology service at our institution for evaluation of chronic abdominal pain and multiple admissions for recurrent attacks of acute pancreatitis. Clinically, the patient suffered from severe mid-epigastric pain with nausea, emesis, lumbago, and stools consistent with steatorrhea. Her constellation of symptoms also included unintentional weight loss of 35 lbs. in six months and anorexia. She denied any history of diabetes mellitus, hyperlipidemia, or alcohol use, or a family history of gastrointestinal or other malignancy. She was, however, an avid tobacco user and was status-post cholecystectomy. On physical exam, the patient was afebrile, non-surgical abdomen with mild epigastric tenderness to palpation without obvious masses, hepatosplenomegaly, ecchymosis, icterus, jaundice, or nodules. Labs were consistent with transaminasemia (elevated AST and ALT > 3 times upper limit of normal), cholestasis (alkaline phosphatase over 400), mild hyperbilirubinemia, and hyperlipasemia (over 400). Previous computed tomography of the abdomen with intravenous contrast was negative for pancreatic parenchymal changes, biliary dilation, or mass; on this admission, a repeat study revealed mild pancreatic ductal dilation and a questionable 1.3 cm focal hypodensity within the pancreatic body. Subsequent magnetic resonance cholangiopancreatography showed multifocal hypodense lesions throughout the pancreas suspicious for neoplasm, and the patient underwent esophagagastroduodenoscopy with endoscopic ultrasound and fine needle aspiration to rule out lymphoma versus neuroendocrine tumor of the pancreas. Final pathology indicated the lesions to be small cell lung cancer with neuroendocrine features. Although previous chest radiography was negative, a subsequent computed tomography of the chest revealed a right hilar prominence/mass and mediastinal lymphadenopathy. Hematology-oncology facilitated the insertion of a port for chemotherapy, and the patient received and tolerated her first course without incident prior to discharge.

Metastatic disease to the pancreas is seldom included in the differential diagnosis of the etiology of pancreatitis due to its rare occurrence. This case represents a rare occurrence of small cell lung neoplasm with metastasis to the pancreas, and illustrates the need for a higher index of suspicion for possible neoplastic process in patients with pancreatitis, especially in the instance of recurrent attacks, chronic pancreatitis, and attacks recalcitrant to standard therapy.

Methods: n/a
Results: n/a
Conclusion: n/a
AVGERSAGE SCORE: 4.75
REVIEWER FLAGS: (none)
REVIEWER RECOMMENDATION CODE DESCRIPTION: None
REVIEWER COMMENTS: