Morning Report

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68 yo WM with N/V and abdominal pain

- Became ill about 2 weeks ago, per pt.
- Intermittent nausea: worse with eating
- Vomiting within 30min of eating, nonbilious, no blood
- Constant diffuse abdominal pain, worse with eating in the LUQ
- + weight loss, unable to quantify
- Symptoms less severe with liquids
Family says:

- Worse in last 2 weeks
- Symptoms going on for about 1 year
- H/o heavy ETOH, none in several months due to illness
- Weight loss of greater than 40 pounds
- Abdominal pain very severe and limiting po intake
ROS:

- Diffuse mild weakness
- Normal BM’s but only one every 3 days
- No fevers, chills
- No abdominal distension or increasing girth
- No CP, SOB, LE edema
Past Medical History

- Colon CA dx’d 1993 s/p partial colectomy, reanastamosis, XRT, CTX
- COPD
- h/o heavy ETOH, no sz’s or DT’s
- chronic pancreatitis presumably due to ETOH, not hospitalized in last 3 years, but several hospitalizations in past
- ALLERGY- iodine causing hives
PMH (cont’d.)

- 80 py h/o tobacco, currently 2ppd
- Denies ETOH in several months, but h/o several fifths and at least a six pack per day
- denies other drug use
Family hx: mother died at 60 w/breast CA, father died in 80’s from CAD/CHF
Physical Exam

- Cachectic, temporal wasting, NAD
- CV: RRR, no m/r/g
- Lungs: CTAB
- Abd: soft, voluntary guarding, no rebound, diffuse tenderness, no HSM, hypoactive BS, ? ascites
- Ext: no c/c/e
- Neuro: nonfocal
Labs:

- WBC 9.9, HCT 32.8, plt 435, chem 7 WNL, Tbili 0.5, AST 38, ALT 29, AP 166, GGT 167, lipase 330, alb 1.4, PT 13.3, PTT 30.2, TSH 2.7

- Diagnostic studies performed
CT Scan Abdomen and Pelvis

- Liver w/low attenuation c/w steatosis, no focal lesions, diffuse abdominal ascites, and cholelithiasis
- poorly enhancing, atrophic pancreas, scattered calcifications
- pancreatic fluid collections: 3.9x3.4cm in head, 5x3cm in tail, and 12x7cm adjacent to LL of liver w/adjacent 5x8cm exerting mass effect on stomach and duodenum
EGD/Colonoscopy

- Small amount of debris in stomach
- Large extrinsic bulge along greater curvature of stomach creating a partial gastric outlet obstruction
- Several <1cm sessile polyps and widely patent left colon anastamosis
Pancreatic Pseudocysts

- Definition: pancreatitis or ductal leakage resulting in a collection of pancreatic enzymes encased by reactive granulation tissue in or around the pancreas

- Walls are adjacent structures (stomach, colon, omentum, pancreas) and lining is granulation tissue (not epithelium)
**Pseudocyst in chronic pancreatitis** Dynamic computed tomographic image shows a thin-walled pancreatic pseudocyst in a patient with chronic pancreatitis. The cyst is compressing the gastric antrum and an abnormal pancreas with ductal dilatation and calcifications can be seen (red arrows).

Etiology:

- after acute pancreatitis: 10% of cases, formed from liquefaction of necrotic pancreatic and peripancreatic tissue which may communicate with the pancreatic duct or cause gross leakage of enzymes
- chronic pancreatitis (usually ETOH) causing chronic ductal obstruction from sticture or protein plugs which increases intraductal pressure inducing leakage
- blunt or penetrating trauma disrupting the pancreatic duct
Pancreatic pseudocyst  CT scan in a patient who had gallstone-induced acute pancreatitis five weeks before the study shows a large fluid collection replacing the head of the pancreas (arrow) with well-defined margins and no associated inflammatory changes. These features are characteristic of a pancreatic pseudocyst. Courtesy of Jonathan Kruskal, MD, PhD.
- mostly asymptomatic
- pain, duodenal or biliary obstruction, vascular occlusion, fistula formation
- infection and abscess formation
- pseudoaneurysm from digestion of adjacent vessel causing GI bleed or bleed into pancreatic duct (hemosuccus pancreaticus)
- pancreatic ascites or pleural effusion
Diagnosis usually by US or CT, fluid will have high amylase levels

Watch out for

- neoplasm: concern for if no h/o pancreatitis or trauma, no inflammatory changes on CT, or septated cysts
- pseudoaneuysm: in 10% of cases, risk of fatal hemorrhage with endoscopic drainage, must undergo embolization (coils or gel foam), concern for if unexplained GI bleed or HCT drop or sudden pseudocyst expansion
Classic surgical teaching:
- 6 wks, rare resolution and 50% complication rate
- 13 wks no resolution, and high complication rate
- recommended resection at 6 wks
- more recent studies have shown that expectant management has low complication rate if no significant abdominal pain, early complications, or continued enlargement of the cyst
Drainage Options

- Surgical internal drainage: CG, CD, CJ or resection of tail +/- splenectomy. Morbidity 15%, mortality <5%, and recurrence 10%, complication of external pancreatic fistulas

- Percutaneous catheter drainage: as effective as surgery, +/- octreotid, complication of tract infection
Endoscopy: ECG, ECD, ERCP. 70-80% resolve, complications of bleeding, perforation, infection, and recurrence (6-18%). Minimal mortality.

EUS and FNA becoming more popular to differentiate neoplasm from pseudocyst and find spot for drainage.

Severe pancreatic necrosis on CT is deterrent to endoscopy as seems to have higher risk of infectious complications.
Pancreatic abscess requires operative debridement and drainage. May use endoscopic drainage if poor operative candidate.

Generally recommend transpapillary stenting if cyst is solitary and small (<6cm), and transmural drainage if pancreatic duct is obstructed or if >6cm
Summary

- Pancreatic pseudocysts are often asymptomatic, but can have a wide range of presentations.
- Complications can be life-threatening, but chances of happening decrease significantly with time.
- Reserve intervention to those w/sx’s and have not had resolution over time.
References

- Up to Date Online version 10.2 www.uptodate.com