07/31/23 Rafael Medina subspecialty VMR @CPSolvers

***"One life, so many dreams" Case Presenter**: Dr. Allyson Richardson (@ARichardsonMD) **Case Discussant**: Dr. Ryan Flanagan (@RyanFlanaganMD)*

CC: 68/F w/ 2 weeks of worsening diarrhea

HPI: Multiple presentations throughout the past 2 years for similar symptoms. Diagnosed with diverticulitis x2, C diff x2 (one with GDH +, toxin negative), tx with antibiotics, with improvement in symptoms in between episodes.

Current episode: 4-6 watery bowel movements per day with mucous + small volume of hematochezia, nocturnal, urgency. Peri-umbilical cramping abdominal pain. Started on antibiotics but symptoms not better.

No fevers, no chills, no nausea, no vomiting

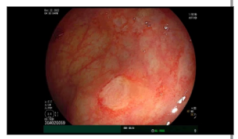
PMH:
Sickle cell trait,
R nephrectomy for RCC,
Had prior colo prior to onset of sx: sigmoid diverticula + narrowing of lumen

Meds: SSRI

Fam Hx:
No family hx of IBD or GI malignancy

Vitals: T: 36.7 **HR:** 82 **BP:** 115/79 **RR:** 18 **SpO2** 99% RA
Gen: Well-appearing, not in acute distress
HEENT: Mildly dry mucous membranes
CV: RRR, no MRG
Pulm: Clear bilaterally
Abd: Soft, mildly distended, mildly tender to palpation in the periumbilical area
Extremities/skin: No nodules, no rashes, non-jaundiced

Notable Labs & Imaging:
Hematology:
WBC: 11 Hgb: 9.2 MCV: 75



Chemistry:
Ferritin: 250 Iron: 76 TSH 2.3
CRP: 32 Calprotectin: 856
C diff toxin negative, GDH +
Stool culture: Neg for Salmonella, Campylobacter, Shigella
Rotavirus neg, adenovirus neg

Imaging and Endoscopy:
CT AP with IV: Circumferential colonic wall thickening involving the distal descending and sigmoid colon with intramural sinus tract and few foci of air
Flex sig: Normal digital rectal exam, no hemorrhoids, rectum with normal appearing mucosa, sigmoid with ulcerations, friable mucosa, diverticula, luminal narrowing
Path: Rectal biopsy with normal mucosa, Sigmoid biopsy shows mild chronic active colitis, neutrophilic cryptitis, crypt architectural distortion, Paneth cell metaplasia

Px was started on 5-ASA with improvement, pending full colonoscopy

Follow-up: Hemoglobin, CRP, and calprotectin improved
Diagnosis: Likely SCAD (Segmental Colitis w/ Assoc Diverticulitis) vs. IBD

Problem Representation: 68/F w/ h/o diverticulitis (x2) who p/w chronic diarrhea, epigastric pain, mixed iron deficiency and anemia of chronic inflammation, CT w/ colonic wall thickening, intramural sinus tract, and few foci of air w/ scope showing findings consistent w/ Crohn. Ddx is Crohn vs. SCAD based on location.

Teaching Points (Hui Ting):
Diarrhea: chronic symptoms (e.g. infectious? Is less common compared to acute diarrhea) *Nocturnal symptoms* is more indicative of secretory etiology, . **C. diff** occurring rapidly after the use of antibiotics. Represent acute diarrhea in most cases.
Chronic diarrhea framework: secretory and osmotic. [*Think of → Problem with electrolyte transport? Failure to absorb electrolytes? Exogenous osmotic agents?]*
SSRI associated GI symptoms should be at the beginning of the presentation. In this case is not a relevant information. *OTC and herbal supplements will be important to know about this patient.* **Microscopic colitis** *NSAIDs and PPIs* can be triggers for this condition. If patient is on these meds, it is advised to stop it. **Sickle cell** is associated with ischemic colitis. Present with acute episode of hematochezia and severe abdominal pain. H/O of sickle cell trait is less common for this presentation.
Abdominal examination: mildly tenderness should raise suspicion for inflammatory causes, but is very unspecific. Hb is important to know to able to do proper differential diagnosis and select the treatment. [*MCV low. Hb low and ferritin low* → **iron deficiency anemia**] *[Elevated ferritin]* usually guide us to inflammation because is an acute phase reactant. **TSH** → hypothyroidism can also cause diarrhea. *[Elevated calprotectin, plus hematochezia and anemia] raise* concern for an acute inflammatory process.
GI bleeding: small volume of hematochezia → *hemorrhoids,* most common and less concerning. Inflammatory causes of diarrhea and hematochezia → ***Segmental colitis associated with diverticulitis (SCAD) → Inflammation similar to ulcerative colitis, in between the diverticula, pathophysiology uncertain → inflammatory response usually in the sigmoid colon → lead to hematochezia, pain and diarrhea.*** **Need for colonoscopy and direct visualization.** *CT scan is useful if there is suspicion for neuroendocrine tumors. CTA: to look for the vasculature to r/o ischemic causes.*
Recurrent diverticulitis with narrow lumen make it difficult to perform colonoscopy. Luminal narrowing also think of colon cancer.
Intramural sinus tract → active inflammation or presence of bacteria. **Air** inside the diverticuli or is in the wall of the diverticula → pneumatosis (concerning for perforation, need for surgery). **When performing biopsy is important to get sample on the edge of the ulcer and the middle of the ulcer to find different causative organisms.**
Crohn's disease: occurs only in the colon, with hematochezia and cramping symptoms. Signs of chronicity and presence of granulomas (without does not r/o the disease but if present is diagnostic). ***Biopsy*** *showing Neutrophils cryptitis, crypt architecture distortion indicate a more chronic process* → This is concerning for inflammatory bowel disease, especifically *Crohn's disease.*
Management in this patient: continue with 5-ASA, once inflammation reduces can perform a full colonoscopy.
SCAD cases usually are more indolent and not well known. It is an inflammatory process that affects colonic luminal mucosa in segments that are also affected by diverticulosis. Treatment for SCAD: most cases are mild, and self limiting. In more moderate cases → 5-ASA (mesalamine).
Differential between SCAD vs IBD → *segmental, inflammation in between the diverticula. It's a subacute process. Biopsy can look like IBD, acting sometimes as a mimicker.* ***Crohn's disease ->*** *affect multiple areas, associated symptoms of ulcers. Also will be pertinent to do upper endoscopy is find ulcers.*
CC of Diarrhea is important to distinguish between IBS vs other inflammatory causes. If hematochezia, significant bowel movements, and nocturnal symptoms are present will guide more to inflammatory causes.
Microscopic colitis is very common, older patient 50-60 y/o with chronic diarrhea without any associated symptoms always r/o this diagnosis, and need for colonoscopy.