03/09/24 Morning Report with @CPSolvers

*"One life, so many dreams" **Case Presenter**: Shriya and Anuj from LSU Health (@) **Case Discussants**: Jack(@), Ibrahim (@) and Shreyas (@)*

CC: Coffee ground emesis of 1 day, diarrhea of 4 weeks

HPI: 48 yo female - 5 episodes of coffee ground emesis, diarrhea 4-6 yellowish watery associated with nausea and vomiting, in general feels weak and lethargic

Diarrhea did not correlate with food intake, no diurnal variation

- *No prior similar complaints*

ROS (-): Chest pain, SOB, DOE, sensory/motor weakness, fever, chills, dark stools, frank blood in the stool

2 visits outside: 1st diagnosed w/ *enterocolitis* clinically and on imaging, managed conservatively; 2nd admission (similar complaints) - diagnosed w/ *biliary dyskinesia* - managed w/ laparoscopic cholecystectomy

PMH:
Cervical cancer (post-hysterectomy)
Hypothyroidism
AHT
DVT
Asthma
DMT

Meds:
Amlodipin
Losartan
Apixaban
Levothyroxine

Fam Hx:
Not significant

Soc Hx:
Denies smoking, alcohol or drugs

Health-Related Behaviors:
No travel, sick contacts, eating outside

Allergies:
Sulfonamide Hydrochloride (?)

Vitals: T: afebrile **HR:** 100-110 **BP:** 100/60 **RR:** 18 **SO2**: 98%
Exam: Gen: ill appearing, in acute distress
HEENT: dry mucous membranes, normal extraocular movements, LAD , no thyromegaly
CV: S1S2 normal, no murmurs, pulse and rhythm regular
Pulm: Clear to auscultation bilaterally, no additional sounds
Abd: Diffuse tenderness on palpation, no rigidity, no hepatosplenomegaly, no guarding
Neuro: wnl
Extremities/skin: No rash, edema, lesions

Notable Labs & Imaging:
Hematology: WBC: 9.6 Hgb: 15.1 Plt: 305
Chemistry:Na:138 K: 3.1 Cl:113 HCO3:13 BUN: 50s Cr:2.2 (baseline 1), Ca: 7.9 (corrected normal) Albumin: 2.2; LFTs normal
Lactate 1.01, Lipase 26, CRP 21.6
OSH labs:C Diff neg, GI Biofire neg, CRP 1.24, Fecal Calprotectin 106 (borderline elevated)
Imaging: EKG: Sinus tachycardia
CXR Abd./Pelvis: fluid within the small bowel, dilated colon (measuring up to 7.6 cm) with mural thickening
Oncologist: Pembrolizumab, last dose 1-2 weeks prior
Stool studies: Calprotectin 668, C Diff neg, CMV IgG pos.
Gastroscopy: Esophagitis, diffuse gastritis, erythematous duodenitis
Colonoscopy: Severe right-sided colitis, mild left-sided colitis, no ulcerations
CMV PCR neg, HSV PCR neg; IgM CMV negative
EGD, Colonoscopy: Neg for H. pylori, increased lamina propria, apoptosis in the crypts; cryptitis, lymphoplasmacytic infiltrates, no inclusion bodies
Absence of ulcerations, diffuse → Empirical prednisone, prompt improvement (Clinically and lab inflammation)
Dx: Immune Checkpoint Inhibitor related Colitis and Gastritis

Problem Representation: 48 year old female with history of post-hysterectomy cervical cancer on pembrolizumab, hypothyroidism, DM presented with acute onset of coffee ground emesis and subacute-chronic watery diarrhea, diffuse esophagitis and gastroenterocolitis w/o ulcerations on EGD/colonoscopy found to have immune checkpoint inhibitor related colitis and gastritis.

Teaching Points (Promise):

- Important to prioritize problems: acute onset of coffee ground emesis is prioritized over subacute - chronic onset of watery diarrhea
- Approach to coffee ground emesis: upper GIB (esophagitis, EV, MW-tear or Boerrhave, PUD, gastritis, PHG/GAVE, angiodysplasias, AVMs)
- Approach to diarrhea: time course - acute almost always gastroenteritis vs subacute ddx widens to non-infectious causes including IBD, gastrinoma, endocrine tumors, toxins
  - Infection, inflammatory, ischemia, infiltrative
- Female with autoimmune disease at risk of another autoimmune disease (thyroid & celiac disease)
- Elevation in BUN/Cr c/f prerenal azotemia and volume loss.
- Fecal calprotectin = ESR/CRP of stool. Indicates inflammation in GI tract. not necessarily dx of IBD.
- h/o cervical cancer → immune status? On chemotherapy?
- If pt on immunotherapy + diarrhea, ddx include infectious causes 2/2 immunodeficiency (ex. CMV, EBV, HSV, HIV), but also diarrhea from immunotherapy (IRAEs - immune-related adverse events)
  - Common IRAEs: autoimx hepatitis, colitis, pneumonitis, DM
  - Path will distinguish CMV vs IRAEs
- Pembrolizumab: PD-1 inhibitor can cause immune-mediated gastroenterocolitis, nephrotic syndrome, hypothyroidism