



# 12/13/24 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Ethan Chiu (e\_chiu17) Case Discussants: Rabih Geha (@rabihmgeha) and Reza Manesh (@DxRxEdU)



**CC:** 73 Y M with fever for one day

**HPI:** regular f/u with at OPD for esophageal cancer s/p CCRT+ surgery in 2019. Latest CT chest two months ago showed no tumor recurrence. Admitted last month: Lower abdominal pain → small bowel adhesion ileus s/p enterolysis Associated with General weakness with dizziness prompted him to ED.

**ROS:** diarrhea for past few week. No abdominal pain, cough, dysuria, cough.

**PMH:** T3N2 lower third esophageal adenoca, s/p neoadjuvant CCRT+ robotic esophagectomy three years ago+ laparoscopic gastric conduit harvest+ feeding jejunostomy. T2DM HTN Covid 4 months

**Fam Hx:** Not significant

**Soc Hx:** Not significant

**Health-Related Behaviors:**

**Allergies:**

**Meds:** Metformin, Esomeprazole, amlodipine

**Vitals:** T: 38.7 BP: 95/64 RR: 14 HR: 118 Sat: 95%

**Exam:** Gen: WNL

**HEENT:** not anemia, not icteric

**CV:** normal ; **Pulm:** BS clear; **Abd:** no tenderness.

**MSK:** no rash, pitting edema

### Notable Labs & Imaging:

**Hematology:**  
WBC: 5.4 (N: 79%, 15% Lymph) Hgb: 8.3 (8-10 baseline) Plt: 67 (<100 from 3 years)  
Hct: 23 MCV: 84.2, Reti: 1.7%  
Fibrinogen: 382, D dimer: 2427 (<550), APTT: wnl, PT: wnl

**Chemistry**  
Na: 129 K: 3.5 Cr: 0.9 BUN: 18.4, CRP: 120 ,AST: 18 ALT: 18 ALP: 61  
UA: bland. Blood, urine cultures, stool routines: Negative

**Imaging:**  
CXR: clear with no pneumonia. Colonoscopy: diverticula, angiodysplasia, Endo: N  
Peripheral smear: 2+ poikilocytosis 2+ burr cells, 1+ polychromasia 1+ schistocytes 1+ ellipocyte.  
Patient had fever despite van+meropenem. F/u CXR: B/L pleural effusion, transudate picture on analysis.  
BM: 70-80% cellularity, M/E: 3.33, abnormal dysplastic nucleus in white cells, 0.2% blasts. No sideroblasts. Chromosome study: deletion in 5 and 7  
WBC: 5.5 > 7.8 > 21.2 > 37. Abx switched to: teicoplanin+meropenem+caspofungin  
CXR: consolidation over both lungs. Na: 150, K: 2.6, lac: 45, Metabolic alkalosis, PH: 7.5, Hco3: 32, BUN: 46, Cr: 0.8, AST: 144, ALT: 284, ALP: 1486, GGT: 1000, CRP: 330.  
Asper, crypt, HSV, VZV, Myco, Legionella, CMV, EBV, PJP: negative. BAL: negative for PJP, aspergillus, TB, Influenza: Negative. HBV, HCV: negative  
CT chest: B/L mixed GGO, consolidations, B/L pleural effusion, diffuse interlobular septal thickening.  
BAL: cloudy in appear, negative for protein, Leuko: 25, RBC: 17000, Neut: 7%, Lym: 3%, macro: 90%. Pleural fluid: negative for bacterial, fungal, TB, Cytology.  
Dx: **Therapy related MDS with high risk profile (IPSS-R: 6), complicated with presumed CRS- like SIRS causing ARDS with the concern of transformation to AML**

**Problem Representation:** 73Y with PMH of esophageal adenocarcinoma s/p neoadjuvant CCRT+ esophagectomy, small bowel adhesion came in with fever and diarrhea, B/I consolidations, pleural effusion with elevated D dimer, abnormal peripheral smear, abnormal dysplastic nucleus on bone marrow Dx as chemotherapy related MDS.

### Teaching Points (Anmolpreet) :

- I] Signal vs noise:** difficulty to say at 1st meet-> previous admission related/unrelated-> 1. what was the cause of SBO → small bowel adhesions (truly)? – mc cause: Prior surgery
- 2. Immobility → hypercoagulability, 3. C.diff (prior rx with antibiotics)
- II] Diarrhea** could be anything related to prev admission or overflow incontinence (H/O constipation and associated symptoms) → inflammatory vs secretory vs osmotic.
- III] Esophageal cancer:** vast majority of patients have- lower 3rd ca → often represents adenocarcinoma → **risk factors**– **occult GERD** → progressive dysplasia → barrett's esophagus (precancerous lesion) → carcinoma  
Upper two-third: Squamous cell carcinoma -> **Risk factor: HPV, smoking**
- IV] Vitals** raises concerns for sepsis (and also a viral infection): Ix → Blood culture, CXR (Pneumonia), UA (UTI) → not to anchor much on UA though because can come out mostly positive in elderly, and the real cause of inflammation can be missed. Early diagnosis and GDMT can help save a life. Empiric antibiotics: Zosyn - PipTaz (for intra abdominal infections)
- V] High CRP and tempo of symptoms (1 day):** hyperacute infection
- VI] Anemia and thrombocytopenia:** raises concerns for MAHA → PBE  
Lower than expected rise in WBC also raises concerns for pancytopenia. Hemogram was expected to be reactive, not – makes us think if it is the primary problem. Bone marrow infiltration vs primary disorder vs peripheral infection
- VII] Schistocytes, anemia, thrombocytopenia, raised d-dimer:** microthrombi? Microangiopathic hemolytic anemias: HUS - hemolytic uremic syndrome (especially because of the history of diarrhea) → MAHA/ MAHA mimics (Vit B12 deficiency) Next Ix: LDH, Haptoglobin, stool testing (Shiga toxin)
- VIII] Bone marrow dysplasia:** Cytogenetic mutation ± (MDS – risk factor: prior chemotherapy, VEXAS); Cytogenetic mutation - (toxins, meds)
- IX] Spontaneous respiratory alkalosis :** raises concerns for problems in brain
- X] Acute complications of MDS:** infections (not to be missed), MAHA, Sweet syndrome