03/24/21 Morning Report with @CPSolvers

Case Presenter: *Fernand Bteich (@fernandbteich)* ***Case Discussants***: *Mario Suito (@mariosuitofmd) and Kirtan Patolia (@KirtanPatolia)*

CC: difficulty breathing

HPI: 60M with difficulty breathing and acute on chronic upper abd pain. Denies fevers/chills/nausea/emesis

ED Course:

PE- tenderness in upper abd, appears ill

CT Scan- marked distension of the stomach, pneumatosis of the stomach/prox duodenum, porta venous gas with pneumobilia, Dx with repeat perforation of duodenal ulcer → OR→ resection of portion of the barium. Lactate 17, AKI (Cr 2.32)-- > IVF, ABx, repair with Gastrojejunostomy → repeated bleeding from NGT

EGD- found an area bleeding @ anastomosis→ clipped→ persistent bleeding despite pressors→ Heme consulted

PMH:
Essential HTN
PUD - perforated duodenal ulcer in 2014
Sacral/parasacral spinal glomus tumor resection - 2020
BPH

Meds:
Amlodipine
Cyclobenzaprine
Lactulose (constipation)
Omeprazole
Tamsulosin

Fam Hx:
Mother- HTN

Soc Hx: no tob, no EtOH, no drug use

Health-Related Behaviors:

Allergies:
none

Vitals: **T**:AF **HR**: 70s **BP**: MAPs > 65 **on norepi RR**: intubated **SpO_2**: 99-100%

Exam:
Gen: sedated
HEENT: no deformities, no LAD, no crepitus
CV: heart sounds present, non muffled
Pulm: symm breath sounds
Abd: healing scar, no external blood. NGT with bloody output, rectal tube with dark output
Neuro: unable to exam
Extremities/Skin: wnl, no purpura, no bleeding on skin

Notable Labs & Imaging:
Hematology:
WBC: 5.8 Hgb: 6.7 (b/l 10.2) Plt: 574 MCV: ?
PT: 15.7 INR: 1.2 PTT: 34.6
Chemistry:
Na: 147 K: 4.8 Cl: 107 CO2: 9 AG 31 BUN: 34 Cr: 2.32 glucose: Ca: Phos: 8.8 Mag: 3
AST: 32 ALT: 23 Alk-P: 133 T. Bili: 0.4 Albumin: 4 Lipase: 167
→ *14 u pRBCs transfused; 3u Plt, 3u FFP*
Post Op Labs : INR 1.7; PTT 48.6, PT 20.2. Hgb 5.1
WBC 2.6; Hgb 9.4 (post transfusion); Plt 273 ; BMP- wnl; AKI impr.
POD 1: INR: normalized, PTT: 50s->60s->91 Fib: ~200
Blood Smear: no schistocytes ; **Mixing study:** 47.8; 2hr post 72.3; PT: 15 sec → did not correct; Factor 9- 60%; Factor 7- 47%; Factor 11- 41%; Factor 8 < 1%. Lupus AntiCoag- neg
Case Resolution:
Pt received dose of NovoSeven→ Hgb, PT, PTT normalized
Likely Dx: post surgical development of factor 8 inhibitor
Pt started on Rituximab- Hgb stabilized to 13/14 w/ replacement of factors

Problem Representation: 60M pmh PUD presented with repeat perforated duodenal ulcer, post hemorrhagic shock, with labs notable for elevated PTT, mixing study showing disproportionately low Factor 8 likely due to development of post surgical factor 8 inhibitor.

Teaching Points (Sukriti):
Investigating the Sx:
Thinking about pathology across two contiguous anatomical sites:
Abdomen and Thorax: Mass effect, tracking of inflammation (IMADE) across the diaphragm
Severe postoperative bleeding: Integrity of vessel, platelet plug (number, function), coagulation cascade
CRP: It is helpful to frequently iterate your problem representation and look for a 'pivot point' in a case - history/data that changes how we frame the case

Collect Clues: Recurrent duodenal perforation + abnormal hemostasis
Abnormal Hemostasis:
Massive transfusion: Dilutional coagulopathy and factor deficiency
Isolated factor deficiencies: genetic or autoimmune acquired secondary to malignancy, infections - atypical viral, autoimmune process
Mixing study: factor deficiencies vs factor inhibitors: look for antibodies!
Clinical Pearl: Interpret severity of shock by the dose of vasopressors > vitals

Framing a hypothesis: Functional factor 8 deficiency + poor response to FFP = Factor 8 inhibitor >>