8//26 Morning Report with @CPSolvers

"One life, so many dreams" ***Case Presenter****: Mukund & Gagana(@)* ***Case Discussants****: Rabih(@) & AMK(@annkumfer)*

https://clinicalproblemsolving.com/present-a-case/

Scribing (Lukas):

CC: 46 yo female p/w hematochezia, tenesmus and rectal pain for 6 days to the ED

HPI: noted quarter size clots, bright red blood with bowel movements (attributed to known hemorrhoids). No prior colonoscopies done.
The patient became concerned when quantity of bleeding increased and symptoms of lower abdominal cramping, fecal urgency and incontinence occured.

Prior Diagnostics

CT: showed prominent rectal wall thickening and colonoscopy revealed a fungating non obstructing mass concerning for malignancy
Biopsies were taken and pending. Hypoattenuated leaflet thickening of tricuspid valve on CT with subsequent TTE showing large echodensity. *Blood cultures 2x drawn*. Started on empiric broad spectrum iv Abx (Vanc/Pip Tazo)
→ *transfer to the hospital for further work up*

ROS (-): fever, chills, preceding illness, recent weight loss, recent sexual activity, urinary symptoms, new rashes, palpitations, dyspnea, vision changes or dizziness

PMH:
Type 1 LQTS with ICD placement

Several echos in the past last 12 years ago with persistent findings (grew Proprionibacterum acnes and CoNS), moderate TR

TTE 2024 showed moderate TR, mobile echodensity attached to TV. Blood cultures 5x negative, PET negative (no Abx given)

Recently underwent bioprosthetic tricuspid valve replacement and ICE removal 5 months prior to presentation for presumed endocarditis.
→ presented with subjective fever and ⅛ blood culture bottles grew non-typeable coagulase-negative staph (TTE mobile mass attached to RV lead with possible TV involvement and severe TR
→ 6 weeks of vanc (tissue culture and 16S sequencing were neg)

Meds:
Losartan
ASA 81 mg
Warfarin for 3 months post procedure (discontinued 8 weeks prior to presentation bei cardiologist)

Vitals: T: 36,2 **HR**: 81/min **BP**: 166/102 **Sat**: 99% on RA
Exam: Gen: appeared uncomfortable, secondary to pain
CV: hall systolic murmur in LLSB louder with inspiration, regular rate and rhythm
Abd: diffuse tenderness to palpation of her lower quadrants **Extremities/skin**: well healed midline sternotomy scar and subcutaneous icd palpable in her lateral chest as well

Fam Hx: Mother and maternal aunt had LQTS, passed away from sudden cardiac death (mom at age 45)

Notable Labs & Imaging:
WBC: 6,43 Hgb: 11,9 Plt: 158 MCV: 92 Na: 139 K: 3,6 Cl: HCO3: 19 BUN: 9 Cr: 0,75 Glu: Aniongap: 12 INR: 1.2 ESR: 27 CRP 36 AST: 18 ALT: 19 Tbili: 0,3 Hapto: 198 LDH: 238 Treponemal antibody: neg HIV: neg
BC (2x outside/2x inside hospital): neg → Abx discontinued

EKG: normal sinus rhythm, QTc 506
TTE: prosthetic valve stenosis with elevated mean prosthetic gradient of 11 mmHg + large (1-2 cm), mostly fixed, rounded echodensity associated with the ventricular aspect of her tricuspid valve replacement (consistent with thrombus/vegetations)

Biopsy (outside hospital): non-diagnostic, necroinflammatory features
Flex Sig: showed ulcerated non obstructing large mass in distal rectum with repeat path showing ulcerated colonic mucosa with ischemic type
→ analgesics given, heparin started for concern for TVR thrombus
Negative Labs: protein C resistance, G2021A gene mutation, B2 glycoprotein, cardiolipin antibody, DRVVT/lupus anticoagulant, CEA and CA 19-9
Repeat BC: neg **Course**: underwent cath-based-thrombectomy followed by fever and hypotension (2 Hb point drop) → CT Angio revealed no active bleeding
→ 2 pRBCs transfused. Broad spec Abx started; BCs again neg, Abx discontinued
MRI pelvis: perirectal inflammatory changes w/o discrete mass, but improved on imaging compared to prior studies
Lower GI EUS: non bleeding inflammatory ulceration TTE: showed intracardiac shunt
Dx: non-definitive; closest: marantic non bacterial thrombotic endocarditis

Problem Representation:

Teaching Points (Varsha)

Bleeding from mucosal surface
- Where: Anatomical approach: anus → rectum → colon → upper GI
  - Bleeding → Irritation: External Vs internal, Localised Vs systemic
  - Causes: inflammation/ infection/ ischemia/malignancy
- Who? - PMHx, Risk factors/ exposure
- When? - Longer duration of symptoms: inflammation >> bleeding issue

Mass on tricuspid valve + GI involvement: look at the bigger picture
- carcinoid/ rectal primary leading to valve deposits, bacterial (strep bovis/enterococcus)
- Baseline - easy to go from rectum to heart Vs heart to rectum (emboli - difficult route)

Vegetation on valve: 1st question - what is it?
- Isolated infection/immunocompromised Vs systemic inflammation/ autoimmune Vs cancer- marantic deposit Vs embolic process Vs Sequelae of a past process that was not resolved
- Increased propensity to affect a vulnerable valve/ foreign body (prosthesis)
- Negative culture: how long ago were they on antibiotics?
  - Inflammatory process? - sterile process
    - behcet's/CVID (ass with lymphadenopathy, oral ulcers)
  - Culture negative organisms - Syphilis, whipples (ab pain, joint involvement), Actinomyces

A GI process has a much higher possibility of seeding to the cardiac valves, but the other way around could also be a consideration and may present as an acute embolic phenomenon affecting the mucosa.