"From the Trough"

Perioperative Interest Group Notes

Based on Cases discussed at the Weekly PIG Clinical Meeting on 8th October 2020.

The imperfect opinions in these reports are only meant to stimulate discussion: - they should not be considered a definitive statement of appropriate standards of care.

Date 29/4/21

TOPIC 1: **Elderly male, consultation for consideration of EVAR.**

83yo male with a 6.7cm aortic aneurysm.

Background:

- CAD
- CABG + MVR 2009 – on warfarin
- CCF EF 19%
- COPD on home O2, ex-smoker
- Severe Pulmonary HTN
- Last TTE May 2021 - mildly dilated LV with severe global systolic dysfunction, severely dilated LA (volume 53mls/m2), well-seated mechanical mitral valve, severe pulmonary HTN (PASP 68), moderate TR, mild AR, EF 19%

Issues

- Current inpatient with CCF exacerbation
- Recent reduction in exercise tolerance
- Referred to ED from perioperative clinic with SpO2 80% after 20m walk. NYHA class 4 dyspnoea.

Discussion

- Should surgery proceed?
    - Life expectancy? Is he likely to die from his aneurysm or his cardiorespiratory comorbidities first (rupture rate for 6.7cm AAA is ~ 20% per year)
    - EVAR is a low physiologic stress procedure.
    - Need clear documentation of ceilings of care (i.e., not for open procedure in emergency or if complications from EVAR)

- Anaesthetic technique
    - GA may facilitate faster procedure and less IV contrast use (protecting from renal injury) due to improved immobility.
    - Can be done under LA/sedation if patient can lie flat/still and cooperate with breath holds

Plan:

- Await outcome of current admission and liaise with surgical team (who are aware of admission)

TOPIC 2: HBV in pregnancy, for elective Caesarean Section

33yo female for repeat CS

Background:

- HBV - reactivated during pregnancy. Risk of vertical transmission
- Albumin 30
- Ferritin 45
- Hb and platelet normal.

Discussion

- Implications of HBV in pregnancy
    - Not uncommon for reactivation due to immunosuppressive state of pregnancy
    - As per RANZCOG:
        - Method of delivery shouldn't be affected by HBV status
        - Invasive procedures which may breech the maternal/foetal blood barrier should be avoided (e.g., foetal scalp clip)
        - Breast feeding is not contraindicated provided appropriate immunoprophylaxis has been given at birth.
        - With high viral load in third trimester, appropriate to commence antiviral therapy to reduce risk of transmission to baby
        - Arrangements for passive (HBIG) and active immunisation of baby need to be in place.

- HBV testing
    - Noted that titres are reported in log multiples, therefore increasing levels represent exponential increase.

- Universal precautions should be used. Patient will still have high HBV titres and therefore high infectivity at time of CS.

TOPIC 3: Endoscopies and pleural effusion

72yo male for gastroscopy and colonoscopy due to upper GIH and obstructive colonic symptoms

Background:

- Presumed sarcoidosis (hasn't attended F/U) with mediastinal adenopathy
- ? metastatic lung malignancy. Previous effusion (? parapneumonic) drainage showed no malignant cells. Effusion now recurred. Nodules in lungs stable on repeat CT.
- Severe cardiac disease

    - TTE 2021 (in context of admission for anaemia) Severely dilated left ventricle with severe RWMAs. EF 26%. Moderately dilated right ventricle with moderate systolic dysfunction. Moderate AS and AR. Mild to moderate MR. Moderately dilated atria.
    - IHD – AMI '09, PCI
- PHTN – mod/severe at rest.
- TIA 2018
- CKD
- Ex-smoker

Issues:

- SOBOE
    - Recent exercise tolerance reduction. Gentle incline, 100m, multiple breaks for SOB.
    - Orthopnoea.
    - ? malignancy
    - ? cardiac component to dyspnoea

- Patient psychosocial issues
    - Difficult historian
    - DNA for multiple appointments and investigations previously
    - Patient declined face-to-face review in clinic
    - Surgical team unaware of multiple other complex issues

Discussion

- Fit for endoscopies?
    - Greater issue is the benefit from these procedures. Diagnostic rather than therapeutic.
    - Surgical team has highlighted that if metastatic lung disease present, endoscopies may not need to occur
- Optimisable?
    - Difficult to know from history alone.
    - Requires face to face review

Plan:

- Admit for TTE (as unable to secure timely booking pre-admission)
- Respiratory team will review while inpatient
- Pending these reviews and pleural fluid drainage, endoscopies may proceed
- Requires inpatient admission for bowel prep regardless due to multiple severe comorbidities

TOPIC 4: **TKR with incomplete revascularization**

69yo male patient in private hospital for TKR

Background:

- IHD
    - NSTEMI March '20, PCI, converted to single antiplatelet therapy after 12/12
    - Admitted recently with unstable angina, *possible* lateral t wave changes but no trop rise. No angiographic findings suggesting revascularisation required. Some very distal LCA territory disease.
    - Recommenced on DAPT.
    - Ongoing daily GTN for angina at rest.

- TTE shows mild apical hypokinesis and mildly reduced EF.
- ? Anti-Phospholipid syndrome
    - Patient diagnosed at one stage as positive
    - Further review by different haematologist and repeat results suggest patient does *not* have APL syndrome

Discussion

- **Should surgery proceed?**
    - GP encouraging patient to delay surgery, await further cardiologist review in 3/12
    - Cardiologist says patient may proceed with surgery now, happy for w/h of clopidogrel
    - Perioperative revascularisation reserved for lesions with a significant vascular territory (left main disease) or symptomatology. ? revasc not being offered despite daily symptoms, as not amenable to stenting.
    - Differential diagnosis:

        Non-cardiac cause of chest pain due to essentially normal TTE in the setting of daily rest pain (e.g., recurrent PEs due to APL syndrome)

        Non-anatomical cause for coronary ischaemic pain e.g., coronary artery thromboses from APL syndrome
    - ISCHEMIA trial showed that even with moderate to severe obstructive lesions, routine invasive therapy was not associated with a reduction in major adverse cardiac events compared to optimal medical therapy. (See attached article)
    - Patient leaning towards delaying surgery (which seems sensible from a purely elective surgery perspective) however, unlikely that anything will change before cardiology review to further guide the decision.
    - If surgery does proceed, patient may be a good candidate for postoperative troponin testing.
- **APL syndrome**
    - Confusing picture with alternate haematologist views
    - Is perioperative Tranexamic acid safe? Brief literature search suggests, and group consensus was, that TXA use is not associated with increased risk of VTE in this setting.
    - ? impact on stent thrombosis risk

Plan:

- Patient currently postponing surgery
- when/if surgery planned in future, formal discussion with current haematologist to ensure that the APL issue has been fully elucidated
- further discussion with treating cardiologist to guide postoperative monitoring/investigations given his IHD.