"From the Trough"

Perioperative Interest Group Notes

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 7/10/21

TOPIC 1: Consult - Hysterectomy, previous severe cardiomyopathy

69yo for hysterectomy. Open vs laparoscopic?

Background

- Early endometrial cancer - hyperplasia. Nil local/distant metastases.
  - Initial hysteroscopy surgically challenging, difficult to obtain biopsy
  - Unable to access cervix, couldn't insert Mirena.
- Distance patient, Dubbo
- Cognitive impairment, independent with ADLs. Attended with carer (niece).
- Challenging consult, limited history available
- AF, apixaban.
- BMI 45

Issues

- Cardiomyopathy
  - Hysteroscopy done under (uneventful) spinal due to being 'unfit for GA'.
  - History unclear, letters from cardiologist suggest fast AF several years ago, presumed rate-related Cardiomyopathy.
  - EF was 25%, now improved to 60%
  - NYHA III dyspnoea.
  - Cardiologist visits from Sydney and regularly reviews at indigenous clinic

- Adrenal Mass
  - Incidental finding. Large 38x22x36mm on staging CT
  - Endocrinologists keen to Investigate as a possible functional mass. Pathology pending.
  - On ACE-I and Beta-blocker so aldosterone/renin test unable to be performed until these medicines are paused.
  - Potentially requires adrenalectomy
  - Functional mass may have caused tachycardia and subsequent cardiomyopathy

Discussion

Optimised from cardiac perspective?

- Recent TTE reassuring
- Remains dyspnoeic however BMI 45 and deconditioned are significant contributing factors

Endocrine Ix pre-operatively?

- Prudent to proceed with gynaecological surgery without significant delay.
- Mirena could not be inserted to slow the cancer progression.
- However a functional adrenal tumour will significantly alter management
- Urgent referral to endocrine completed after discussion with endocrine AT

Preoperative sleep studies?

- STOPBANG 7
- ESS = 5
- HCO_3 = 29
- Spo2 =96% RA
- Some features to suggest possible Obesity hypoventilation Syndrome
- No preoperative sleep studies indicated given ESS < 8, urgency of surgery, and further delay.

Distance patients in clinic

- Gynae-oncology distance patients are booked to have anaesthetic consult and surgical review on same day
- Often travel long distances to the hospital and are seeing the anaesthetist first as the gynae clinics are in the afternoon
- Not ideal as we might not know what operation is planned
- Can liaise with the surgeon that afternoon
- Helpful to send patient to gynae appointment with photocopy of anaesthetic chart and a mobile phone number so that the team can rapidly access the information they need and contact us to facilitate surgery.

Plan

- Pathology including plasma metanephrines, 24-hour urinary catecholamines, TSH and Hb requested
- Urgent endocrine review via telehealth organised

TOPIC 2: AAA v. R colon cancer

53yo male for right hemicolectomy.

Background:

- Laparoscopic appendicectomy 12/12 ago, no issues.
- Mass found in Right Colon due appendicectomy
- ETOH binge drinker

Issues:

- 5cm AAA, asymptomatic

    - Incidental finding in workup for bowel cancer
    - Now 5.5cm, requires treatment

- HCV
    - Patient reported having HBV previously
    - On further investigation, diagnosed with HCV in 2015, with low titres.
    - FibroScan – no cirrhosis. Planned for no active treatment but advised to await new treatments in the very near future.
    - Lost to follow up after that.

Discussion:

EVAR v. Open repair AAA

- Concerns about longer recovery with open procedure, may delay cancer treatment
- Neurohumoral responses to major open abdominal surgery may accelerate cancer spread/progression
- On a population level, Uptodate suggests:
    - Randomized trials comparing open AAA repair with EVAR have found significantly improved 30-day M&M for EVAR but no significant differences in long-term outcomes up to 10 years.
    - A pooled analysis of these trials identified a 69% reduction in the risk for perioperative mortality for endovascular compared with open repair (odds ratio [OR] 0.33, 95% CI 0.17-0.64).
    - EVAR appears to be associated with the need for more secondary procedures and an ongoing future risk of aortic rupture.

Surgical considerations

- If bowel surgery was more urgent (e.g. obstruction) would open or laparoscopic procedure be preferable with known large AAA? - unclear
- Abdominal CT often ordered by surgeons in suspected appendicitis in older age group, due to possibility of cancer

Role for HCV RNA PCR (BMJ best practice)

- Negative result confirms no current infection (whereas antibodies will always be +)
- Recommended 1st line test if immunocompromised, as antibody testing may be negative due to failed/delayed seroconversion
- Used to detect reinfection
- 15-45% of people will clear the virus spontaneously, so PCR tells you if they are viraemic.

Plan:

- Proceed with EVAR
- HCV PCR – no need for titres. If PCR + will need treatment for HCV.
- Proceed with bowel cancer surgery regardless of requirement for HCV Rx.
- Check alpha-fetoprotein level to screen for liver cancer

TOPIC 3: Latent TB Management

60yo female, for hysteroscopy and D+C for abnormal uterine bleeding.

Background:

- Refugee from Democratic Republic of Congo
  - Arrived 2019.
  - 10yrs prior spent in refugee camp with 6 daughters.
  - Difficult consultation. Patient requesting only her daughter act as interpreter. Language barrier difficult, particularly on phone

- Conversion disorder
  - Developed right sided full body pain, paraesthesia, and dysphagia (couldn't swallow saliva) 2/7 after arrival in Australia.
  - Extensive medical review – nil organic cause found.
  - Management through HIPS.
  - Most symptoms now resolved.

- Latent TB diagnosed on screening. No treatment.
- Not COVID vaccinated, currently considering.

Discussion:

Implications of latent TB perioperatively?

- Lack of literature around latent TB
- ID advised:
  - Screen for symptoms – weight loss, night sweats, cough, haemoptysis
  - If nil symptoms present, no specific precautions needed.
- Should ensure gynae team know that patient has latent TB, as all organs can be affected, seeding can occur, and staff exposure from surgical sites.

Video-consulting in perioperative clinic

- Facilitate improved communication in cases with communication barriers
- May also assist with patients who require visual assessment; concerns about frailty/airway, or if F2F consultation impossible or better to avoid (e.g. moving between zones with different COVID regulations)
- Video is challenging to arrange for all patients as it impacts on efficiency and patient satisfaction as patients must "wait" in a virtual waiting room.
- Audiovisual technology requirements – may be challenging for older patients but family and GP surgeries could help
- Video most beneficial as a targeted resource. May set up a specific clinic session for a group of patients to maximize clinic efficiency at other times.

TOPIC 4: Seizure v. cardiac event prior to TKR

80yo man for L TKR.

Issues:

- Episode of LOC several years ago
  - Isolated event. Nil seizure-like features.
  - Witnessed by family members
  - Extensive review by neurologist – EEG showed prominent epileptiform features in the temporal lobe which were reproducible on repeat testing.
  - EEG abnormalities resolved with commencement of Levetiracetam.

- Bifascicular block on ECG, HR 59, no cardiologist review

Discussion

Should we be concerned about a cardiac cause for his LOC?

- Reassuring features:
  - One distant episode.
  - Now treated for epilepsy. No further episodes.
  - EEG showed a gross abnormality and repeat EEG after treatment was normal.
- Concerning features:
  - Episode doesn't really sound like a seizure. Sounds more cardiac in origin.
- Unlikely that a cardiologist be interested in one episode of LOC
- Holter = low risk study however likely wasted resource and burdensome to patient

Plan:

- Proceed with surgery without further investigations.

TOPIC 5: Semi-urgent minor surgery and recent PCI

83yo male for cystoscopy and stent exchange due to chronic obstruction from uroepithelial carcinoma.

Background:

- Uroepithelial carcinoma
- PVD
- Impaired glucose tolerance
- AF. On apixaban.
- PPM for CHB (99% paced, underlying AF).
- HTN
- Dyslipidaemia

Issues:

- Recent PCI
  - Type 2 MI Post-operatively after stent insertion
  - Ongoing intermittent chest pain last 6/12
  - PCI + rotablation for severe ostial RCA stenosis. 3/52 ago
  - For lifelong clopidogrel and apixaban.
  - Ureteric stent now 7/12 old, urologists keen ++ to replace

Discussion

Ideal timing of surgery?

- Discussed with treating cardiologist: happy to proceed 4-6 weeks post-PCI
- Requests to continue clopidogrel perioperatively.
- Discussed with surgeon – happy with plan

Communication in the perioperative clinic

- Much time spent attempting to phone proceduralists and clinicians, they are often busy/scrubbed and then call back when we are with another patient
- Email often a more effective tool – ability to CC all relevant clinicians and the HNELHD-JHHPeriopnurse@health.nsw.gov.au perioperative nurse address.
- Provides a paper-trail of communication. Encourages multidisciplinary engagement.
- Clinician email addresses usually available on their letterhead/website.
- The urology registrars are setting up an email address to allow us to create a bank of patients for them to ask their consultants about on a regular basis.

Cardiac Investigations in this patient post initial Type 2 MI

- Interestingly this patient had a sestamibi which showed 'no major area of inducible ischaemia' and that patient had no chest pain throughout the protocol.
- Note that the stress ECG component of the test is difficult to interpret in the present of Ventricular-pacing.
- See attached article on non-invasive cardiac stress testing

Table 3 Selected sensitivities and specificities of non-invasive tests for the detection of coronary artery disease as reported in the ACC/AHA 2012 and ESC 2013 guidelines

	Sensitivity		Specificity	
	ACC/AHA 2012	ESC 2013	ACC/AHA 2012	ESC 2013
Exercise ECG	0.68	0.45–0.50	0.77	0.85–0.90
ECHO				
Exercise or pharm	0.76		0.88	
Exercise		0.80–0.85		0.80–0.88
Pharm		0.79–0.83		0.82–0.86
SPECT				
Exercise or pharm	0.88		0.77	
Exercise		0.73–0.92		0.63–0.87
Pharm		0.90–0.91		0.75–0.84
PET				
Exercise or pharm	0.91		0.82	
Pharm PET		0.81–0.97		0.74–0.91
CMR				
Dobutamine		0.79–0.88		0.82–0.86
Vasodilator		0.67–0.94		0.61–0.85
CCTA		0.95–0.99		0.64–0.93

ACC/AHA 2012 estimates adapted from Garber and Solomon.[28] ESC 2013 estimates were collated from multiple studies and adapted from Montalescot *et al.*[7]
ACC, American College of Cardiology; AHA, American Heart Association; CMR, cardiovascular MR; ESC, European Society of Cardiology; PET, positron emission tomography; SPECT, single photon emission CT.