"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 8/7/21

TOPIC 1: **Elderly frail patient with severe AS for rectosigmoid cancer resection.**

77yo male with rectosigmoid cancer causing PRB and significant anaemia requiring transfusion recently.

Background:

- Severe AS – Balloon valvuloplasty 30th June with reduction in valve gradient to 44mmHg and large improvement in symptoms (SOB and presyncope resolved).
- Minor non-obstructive CAD on angiogram 2020
- NIDDM
- Cognitive impairment. MMSE 19/30. Recent delirium in setting of severe anaemia.
- Cerebrovascular disease with old lacunar infarct
- Dyslipidaemia
- Severe hip OA. THR postponed due to other medical issues.

Issues

- Severe aortic stenosis
    - Discussed with Dr Hatton (patient's cardiologist): Very reassured by improvement of symptomatology. Expected deterioration with time. May never be a candidate for TAVI due to cognitive status but may have repeat balloon valvuloplasty in the future.
    - Low exercise tolerance with DASI 2.9, however able to climb up/down 4 FOS and walk 100m on flat, slowly with walking stick, no pauses or symptoms.
- Cognitive decline
    - Delirium risk perioperatively
    - Noticeable decline over last year. Cardiologist said some decline may be attributable to his severe AS, there *may* be some improvement post-valvuloplasty.

Discussion

- Perioperative risk
    - Long discussion with patient and daughter about NSQIP-guided risks of death (3.6%), serious complications (16%), delirium (21%) and functional decline (44%).
    - Daughter insistent that any additional functional needs postop will be catered for with family assistance and care packages at home.
    - Pt has a quiet life at home, especially during COVID-era, but enjoys his life and feels strongly that he'd like surgery to give him the best chance of cure. Accepting of risks.
    - Palliative radiotherapy (necessary due to current PRB if surgery didn't proceed) would not be without burden for the patient/family.
    - Advanced care planning discussed, and he would like all active measures deemed suitable by the medical team.

- ? optimisation possible
    - May need further transfusion or iron preop
    - Severe hip OA and cognition make physical prehabilitation challenging
    - Aortic valve at its best now, cardiologist suggested ideal to proceed now.

Plan:

- Repeat FBC and Fe studies
- Proceed with surgery.
- ICU level 2 postop for haemodynamic monitoring/support given severe AS.

TOPIC 2: **Cranioplasty after stroke**

59yo lady who had a haemorrhagic stroke 6/12 ago, for titanium cranioplasty. Residual left hemiparesis

Background:

- Haemorrhagic CVA - SAH + intraparenchymal bleeding. Decompressive craniectomy.
- Otherwise well lady.

Discussion

- Elective surgery timing after CVA
    - Consensus guidelines suggest 9/12 delay after stroke before elective surgery as this is when the nadir is reached for risk of perioperative stroke.
    - Lifetime risk remains elevated compared to someone who has not had a previous stroke
    - Most data derived from ischaemic strokes, not haemorrhagic or cardioembolic.

    - NeuroSx registrar said it would be their routine practice to perform cranioplasty asap, as the brain is unprotected from external trauma and cranioplasty may also lead to acceleration in recovery of residual stroke symptoms (thought to be due to improved CBF and CSF flow dynamics https://thejns.org/view/journals/j-neurosurg/128/1/article-p229.xml)

- Recent steroid injection for shoulder bursitis; potential infection risk with planned prosthesis
    - NeuroSx registrar unconcerned.
    - Noted that other surgical specialities may have different views. Many orthopaedic surgeons will not accept a depot steroid injection within 3/12 of arthroplasty.
    - Consult with surgical team if any doubts for similar cases in future.

Plan

Proceed with OT.

TOPIC 3: **Super morbid obesity for gynae non-cancer surgery.**

66yo lady for laparoscopic hysterectomy and BSO for complex ovarian cyst. Tumour markers negative, thought non-cancerous.

Background:

- Recurrent TIAs/syncopal events, ongoing for many years. Well known to neurologist. Normal cerebral imaging. DDX; epilepsy vs anxiety related.
- Patient declined loop recorder to exclude bradyarrhythmias
- Possible PFO – Echo showed aneurysmal and mobile intra-atrial septum. R-to-L shunt. Patient declined F/U for assessment of PFO and closure if indicated. Episodes could represent recurrent micro-embolic episodes via the PFO.
- Cerebral aneurysm clipping 2013
- Smoker, 45PYH
- Thyroidectomy
- Severe anxiety and depression. ++ psychosocial issues

Issues:

- Syncopal episodes of unknown origin, likely not organic cause but need to exclude PFO and bradyarrhythmia

Discussion

- PFO and laparoscopic surgery - risk of venous air embolism. It is not prudent to proceed while this issue has not been resolved.
- Given the gynae procedure is not urgent but the patient is keen to proceed, this provides a timescale to follow up these medical issues.

Plan:

- Clinic doctor to liaise with surgical team/GP to ensure issues are investigated/managed appropriately prior to procedure.

TOPIC 4: Unoptimised OSA, super morbid obesity, for minor gynae procedure

26yo female with grade 1 endometrial cancer for repeat hysteroscopy, D+C and mirena exchange

Background:

- Endometrial cancer - being treated with mirena/curettes. If cancer persists will require hysterectomy.
- 197kg, 15kg weight gain in 9 months.
- Nulliparous woman, keen to have children, may do so via surrogate with egg donation if hysterectomy proceeds.
- 2 x previous same procedure - one under GA igel 5, one under sedation with THRIVE. Both nil issues
- OSA - overnight oximetry with ODI 48/hr and witnessed apnoeas. Did not attend for respiratory physician review despite repeated appointments.

Issues

- Unoptimised OSA and future surgeries planned (ideally lap hysterectomy but high risk of conversion to open given body habitus)
- Possible OHS
- Severe obesity, weight gain despite dietician review.
- Metabolic syndrome

Discussion

- Anaesthetic technique for similar super-morbidly obese patients having short gynae procedures
    - Increasingly common
    - Some consultants utilising a technique of conscious sedation using ketamine and THRIVE with good results.
    - Individual clinicians should only practice within their comfort zone
    - ANZCA PS15 suggests that patients with high BMI with confirmed or suspected OSA should have minimal post-operative opioid requirement and ideally discharge analgesia should not include opioids to be considered suitable for day case surgery.

- Safe, agreed, discharge plan required for these patients, and it may be suitable to keep them in hospital overnight for observation.
- Combined CME (with O&G) required to discuss these increasingly common cases.
- suggestion to have a regular list dedicated to similar patients in order to increase efficiency/safety.

Plan:

- Given minor surgery, ok to proceed without OSA optimisation.
- Resp physician will review patient while in hospital due to previous issues with attendance. They have requested an ABG (if arterial line used due to body habitus intraop) to check awake PaCO2. If elevated this would guide BiPAP initiation (for obesity hypoventilation syndrome/mixed picture) rather than CPAP (for OSA alone)
- Medicare-funded bariatric surgery with certain criteria is available in Sydney. Blacktown Hospital Metabolic & Weight Loss Clinic - WSLHD (nsw.gov.au) Information provided to the patient's GP for consideration.

TOPIC 4: Cancellation for discussion - Aspiration risk and OSA unoptimized

59yo female for hysteroscopy, D and C, Mirena.

Background:

- BMI 58
- 'occasional' diet related reflux
- Pt cancelled due to large BMI, unoptimized reflux, likely (but untested) OSA and concern Re aspiration risk in context of previous regurgitation upon extubation during last hysteroscopy
- Spinal attempted in bay (by 2 proceduralists) but not possible
- Referred back to GP to manage reflux (patient on nil medications normally) and further assessment/optimisation of OSA.

Discussion points

- OSA assessment and optimisation
  - Difficult to access, long wait list in the public sector.
  - As a limited resource we must utilise rapid access appointments in a targeted way to gain the most benefit.
  - Epworth Sleepiness Score >5 and STOPBANG score > 3 should be used to screen for the highest risk patients.
  - Optimisation not required prior to minor surgery.
  - Local guideline for pre-op testing and optimisation under development.

- Aspiration risk
    - Reasonable to attempt to alter the patient's risk profile before another anaesthetic given previous regurgitation event.
    - Ranitidine stores are no longer available in the preop clinic.
    - PPIs are available over the counter although they are more expensive than when prescribed.
    - Referred to GP for management of reflux and weight loss.
    - Could consider longer fasting/duration of clear fluids before anaesthetic.
    - Gastric US is validated with high BMIs (https://doi.org/10.1093/bja/aew400) although potentially more useful as a rule-in test (i.e., high residual gastric volume present) rather than a rule-out test, due to the potential for fluid to be sequestered in other parts of the stomach.
    - Na citrate for induction.
    - Individual anesthetist's choice. Mixed opinions in the group regarding cancelling/proceeding with the case.

TOPIC 4: Cancellation for discussion – medication information on DOS

Background:

- Patient for Cystoscopy under LA.
- Patient confused in anaesthetic bay, said he had *not* ceased his blood thinner, as requested by surgical team.
- Medication *had* been ceased appropriately in clinic, with removal from the Webster pack by his pharmacy.
- SDDOS had been informed by his wife that he hadn't taken it but that wasn't passed on to the anaesthetist (or documented in their admission notes)

Discussion

- Follow up under way to determine if any potential for improved communication regarding issues such as this.
- If any doubt exists of day-of-surgery regarding medication management, enquiries can be made with the periop clinic nurses, SDDOS, the patient's pharmacy or through visual inspection of the Webster pack (if available).