"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 27/5/21

TOPIC 1: **TURBT with severe CCF**

89yo male with known severe HFrEF and recurrence of bladder cancer causing haematuria and urinary retention.

Background

- Bladder cancer – previous TURBT (2019) and palliative radiotherapy. Symptomatic recurrence.
- Significant cardiac disease
    - Biventricular PPM for sinus-brady, PPM-dependent.
    - IHD - CABG 06, NSTEMI 18, angina 2-3x per week.
    - HFrEF, admitted with decompensation Nov '20, EF~30%
    - PAF - anti coagulated.
- CVA post CABG (nil deficit)
- CKD eGFR 42
- Hypothyroidism
- Borderline exercise tolerance 4.6METS DASI
- Distant ex-smoker

Issues

- Severe HF + ongoing angina
    - Nil clinical e/o HF on examination.
    - Known severe dx, TTE relatively unchanged from 2018 - now.
    - Known to cardiologist, reviewed recently.
    - Discussed with that cardiologist - nil room for further optimisation.

Discussion

- **Should surgery proceed?**
    - Palliative procedure for symptom-relief

- Low risk, low physiologic stress surgery.
- Palliative radiotherapy an option? - possibly, but the patient cost (emotional, physical, QoL) of a weeks long course of daily radiotherapy at 89yo and with his comorbidities should not be underestimated. Overall seemed that the TURBT was the most patient-centred option.

- **Any optimisation possible?**
  - Cardiologist feels that patient is optimised. Further Ix/Mx of IHD would be invasive, low yield and may have secondary consequences with negative impact (such as delays to his symptom relief from TURBT; the need for additional anti platelet therapy which would cause further bleeding issues and be problematic in the perioperative period).

TOPIC 2: Likely metastatic gastric cancer, ? Futile procedure

88yo lady for repeat gastroscopy for confirmation of (suspected) gastric cancer.

Background

- ? Metastatic gastric adenocarcinoma
  - Weight loss ~30kg
  - Nausea, anorexia, abdominal pain.
  - CT abdo shows a thickened gastric wall suspicious for malignancy, with widespread lymph nodes and a peritoneal lesion suspicious for metastatic disease.
  - Gastroscopy April - large ulcer seen (H. Pylori +). Suspicious for malignancy but not found on histology/cytology.
  - Delirium lasting ~1/7 after gastroscopy.

- PEs - bilateral, diagnosed ~3wks ago. On therapeutic clexane.
- CKD + recent AKI, without return to baseline.
- Moderate aortic stenosis 2016
- Frail. Family assisting with all ADLs and using 4WW as wheelchair for most distances.
- Multiple recent ED presentations and hospital admissions with pain.

Issues

- **What are the goals of care?**
  - The patient seems to be dying, with symptoms and imaging consistent with metastatic gastric adenocarcinoma. Surgical team agrees this is the most likely diagnosis.
  - Surgeon says a formal cancer diagnosis would not lead to active treatment (chemo/surgery) due to her advanced age and frailty

- Palliative radiotherapy might be considered if bleeding became an issue (not currently an issue).
- Surgeon said that a diagnosis would assist with prognostication, dictating fast track palliative care v. Nursing home care for this lady.
- Patient + family unaware that no active treatment was being considered.
- Patient + family's main priority was for symptom relief, which they were worried they needed a formal diagnosis to receive through pall care.
- Concerns about deterioration after even a short procedure, given her frailty/active PEs/recent delirium, significantly reducing the length or quality of her remaining life.
- GP very happy to manage this patient's symptoms with palliative care in the community, although noted that pall care services are in her opinion, fairly limited.

Discussion

- **Should the gastroscopy proceed?**
  - Group consensus was that this is low yield healthcare as it provided no material change to her treatment plan.
  - Discussed the need for anaesthetists to see themselves not as technicians, providing services to proceduralists indiscriminately, but as active parts of the patient's perioperative journey, with the ability to oversee/question/add value to the process.
  - Review booked with surgeon in 1/12.

- **Midazolam use in the elderly - ? Contributes to delirium after endoscopic procedures.**
  - Frequent use in large doses by procedural seditionists to minimise airway and haemodynamic complications.
  - ? The specific contribution of midazolam to delirium in elderly patients beyond that of change in environment, fasting, dehydration, surgical insult, pain, other anaesthetic agents, analgesics, acute illness, etc.
  - A recent small, prospective, observational pilot cohort study screened for delirium using the CAM tool in 40 patients who underwent elective endoscopic procedures. No patients were found to have delirium at 24-48h post procedure. https://doi.org/10.1186/s12871-021-01275-z

TOPIC 3: Arterial thromboses after platelet transfusion in context of emergency AAA

Background

- Recent patient, underwent emergency open AAA for rupture.
- 3 x MTPs used, with platelets as part of the 2nd MTP, as per local guideline.
- Survived initial surgery, went to ICU.
- Returned to OT later that day for bilateral lower limb arterial thrombectomies.

- Surgeon suggested that the use of platelets as part of the MTP in this setting may have contributed to the thromboses.

Discussion

- **Should we be using different MTPs for major emergency vascular surgery?**

    - BJA review article suggests a lack of high quality evidence to guide transfusion practices specifically in vascular surgery patients, but advocates for 1:1:1 transfusion protocols, the same as that used in trauma.
      https://academic.oup.com/bja/article/117/suppl_2/ii85/1744439

    - A small prospective single-blinded randomised study published in Transfusion Medicine found no increase in adverse events or survival impact from platelet transfusion in ruptured AAA patients *before* transfer to a tertiary centre for surgery. DOI: 10.1111/tme.12540

    - In elective AAA surgery, heparin is used prior to aortic cross-clamp to minimise the risk of arterial thrombosis. While seemingly counter-intuitive in the bleeding patient, should this be considered in emergency surgery also?

    - Blood transfusion is rapid and voluminous in emergency AAA surgery. Formal bloods results will be outdated by the time they are available and using TEG unless extremely familiar with it +/- with a dedicated technician can be distracting and time consuming.

    - Once the initial urgency has passed, restrictive transfusion strategies guided by results becomes more appropriate.

    - Overall it was felt that at this stage, sticking to current locally endorsed MTP guidelines is appropriate, however communication with the surgeon around appropriate blood product use is recommended.

TOPIC 4: **OSA assessment and optimisation**

Background

- **Case study:**

    - Obese female patient for laparoscopic gynaecological surgery.

    - Not optimised (non-compliant) on CPAP for known severe OSA

    - Conversion from laparoscopy to laparotomy due to surgical difficulty

    - Hypercapnoeic in PARU with imbalance between opioid requirements and respiratory drive.

    - Admitted to ICU overnight for observation and NIV

- Recognised that day 3 (*after* ICU discharge) remains a high risk time for these patients, with resumption of normal sleep architecture and ongoing opioid requirements, leading to risk of opioid-induced hypoventilation and respiratory arrest.

Discussion

- Proactive perioperative efforts are leading to a large workload increase for the respiratory teams, with identification of so many patients at risk of severe OSA or with known OSA but not optimised.

- Long wait-lists for OSA assessment and management in the public health system (up to 12 months).

- New guideline being developed to identify the patients at highest risk perioperatively, to guide who should be referred to the respiratory teams, to maximise our use of this finite resource.