"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 4th November 2021

Attendance : Paul Healey, Pragya Ajitsaria, Claire W, Blair Mumford, Ross Kerridge, Ben Piper, Lee-Ann Kitto, Daniel Zadawi, Candice Peters, Simon Gomes-Viera, Amanda Taylor, Jen Mackney, Michael Dobbie, Libby Freihaut, Lachlan Frawley, Nikhil Patel, Mark Davies, Del Edwards, Melissa Smith, Phil Beames, Vicki Browning, Jess Gani, Viv Ho, Gary Leung, Lisa Doyle, Steve Bruce.

TOPIC 1: Ovarian mass, suspected cancer

53 year old women for laparoscopy and removal of ovarian mass

Background

- Child pugh B liver cirrhosis secondary to hepatitis C
- Ovarian mass with raised CA125
- Seen in clinic in July 2021. Found to be in decompensated liver failure with ascites and right sided pleural effusion.
- Discussed with surgeon. For 3/12 deferral only to optimize liver disease.

Issues

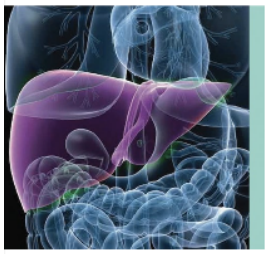
- Recent diagnosis – hepatitis C
- Decompensated liver failure
- Coagulation tests deranged

Discussion

- Patient delayed 3 months – has completed treatment for Hepatitis C. Will have further pathology testing and liver ultrasound in follow up after surgery.
- Liver decompensation – treated with diuretics. Patient refused treatment with lactulose. Resolution of ascites and right sided pleural effusion
- Coagulation test derangement – common in liver disease, note that bleeding is related to abnormal anatomy (oesophageal varices, gastric/duodenal ulcers) and not necessarily coagulopathy. Current INR = 1.4, platelet count = 60.
- Is TEG useful to help guide management of bleeding? Discussion about it's use before and/or during surgery.
- What treatment should be given for abnormal coagulation studies prior to surgery?
- Should she have regular Vitamin K?

Plan

- Patient discussed with surgeon as did not have date as yet. Surgeon was grateful for call as there was limited availability of operating time and this patient's outcome may be affected by further delay to surgery.
- Discussed with Haematology – they suggest that patient is unlikely to be coagulopathic. They state that recently released guidelines do not recommend platelet transfusion below levels of 50 in chronic liver disease who are not overtly bleeding, and that any FFP replacement is unlikely to significantly lower INR below 1.4 and not recommended in chronic liver disease (see DOI: 10.1111/jth.15562)
- Vitamin K seems low risk – especially given orally, although not recommended in guidelines attached.
- TEG in cirrhosis – seems promising, although patients seem to have variable results. See extract from recent review, with conclusions below.



Thromboelastography and Utility in Hepatology Practice

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CONCLUSIONS

In summary, the utility of TEG in patients within hepatology is promising. VETs are now more widely available, yet studies are still needed to demonstrate overall utility to predict bleeding or thrombosis. Although more closely approximating coagulation and fibrinolysis in principle, VET has yet to demonstrate reliably accurate prediction of clotting or bleeding events in cirrhosis. The coagulation system in cirrhosis is extraordinarily complex, and all *ex vivo* testing is limited by loss of important mechanisms of vascular endothelial interaction and blood flow. Future high-quality, prospective studies are now needed to assess bleeding risk using TEG in patients with acute and chronic liver disease to establish parameters that can predict actual clinical events so they may be prevented with intervention.

TOPIC 2: Large fungating SCC on face

85 yo man for excision of large fungating SCC from face

Background

Nursing home resident - lived alone on a farm until recently. Entered nursing home post-cataract surgery as found to be not coping at home
Dementia
Prostate cancer
CABG 1997. No follow-up. Asymptomatic but doesn't exercise much
DASI 3.9

Issues

- Very frail
- Large resection - PET scan shows invasion into skull bone and numerous surrounding structures. Lymph node involvement, no distant mets
- Systolic Murmur
- Functional capacity very difficult to ascertain

Discussion:

- Surgical plan - palliative vs curative surgery and radiotherapy.
- Curative surgery - Resectable but involves all inferotemporal fossa and teeth, will need neck dissection and free flap. May require exenteration of eye especially for curative intent. Long operation 8+ hours
- Palliative - will still require significant surgery and skin graft
- Surgeons feel curative us preferable for this patient. Likely die from maxillary artery bleed if cancer erodes into artery.
- Has a mediastinal node - awaiting Endobronchial US guided biopsy in 4-6 weeks to determine if metastatic disease. IF metastatic, then not for surgery.
- Family - further discussion required. Family discussion in clinic highlighted that patient will unlikely return to baseline. Patient and family were hoping that current nursing home admission was temporary.
- Stress imaging - unlikely to change management
- Echocardiogram - no evidence of heart failure but has a murmur. Could consider a BNP to give an indication of the contribution of valvopathy as has been recommended by cardiolgy in the past.
- Post-operative delirium - very high risk given dementia.
- No baseline cognitive assessment. No regular GP

TOPIC 3 – Consultation for Ivor-Lewis Oesophagectomy

75 yo with oesophageal cancer

Background:

- HTN
- AF - CHADS-VASC 4
- Binge drinker
- Ex-smoker
- NIDDM
- Epilepsy - absence seizures

Discussion:

- BP in clinic - 192/70
- Discussed at CPET group - not taking medications as has no regular GP
- Spirometry: Mild airflow obstruction, post BD change 28%. Consistent with asthma.
- CPET - Peak VO2 low at 15.2ml/kg, AT 7.7ml/kg/min. T depression inferolaterally towards peak exercise.
- Maximal stress test: HRmax - 85% predicted. This patient reached 82% predicted, RER - 1.15. This patient - 1.12. RER (VCO2/VO2)
- Ventilatory reserve - MVV=FEV1x35, should have at least 20% reserve. Patient has encroached on his ventilatory reserve. HR also raised at this time which could suggest SV limitation. Note patient has not been taking bronchodilators.
- NAC - surgery planned for 8 weeks post NAC. Concern that patient will significantly decompensate with chemo
- Borderline - alcohol intake - unwilling to cut-down. Weight loss, non-compliant with medications
- Social issues - no car, may not be able to participate in prehab, from isolated area
- Prehab - multiple options. Dr Jen Mackney co-ordinates via CPET MDT and periop clinic. This patient would be better suited to a supervised program.

Plan

- Restart antihypertensives and bronchodilators
- Formal stress imaging
- Prehab and re-test preoperatively before deciding if fit for surgery.

TOPIC 4:

41 yo for tronsillectomy

Background

Severe OSA, AHI 107, normally on CPAP
Morbid obesity - 56
IDDM - new diagnosis after recent presentation with Hyperglycaemic hyperosmolar syndrome (HHS) requiring ICU

Issues and discussion

- ICU post-operatively?
  Mixed central and obstructive sleep apnoea - higher risk as per literature and respiratory discussion.
  Tonsillectomy in adults is painful. Opioids often required
- Patient had ICU bed booked in clinic by a senior consultant. Surgeon had indicated that ICU bed not required.
- Surgeon of the opinion that patients are usually much better post-operatively
- CPAP post airway surgery - usually ok post tonsils. Not post sinus surgery.
- Surgical preference on RFA is always helpful and if we are deviating from that it is helpful to communicate with surgeon. Note ICU beds are in demand at JHH, and patient may be cancelled or list delayed if no ICU bed available.
- Children post-tonsillectomy often go to PICU. Evidence is growing to show that this is unnecessary, regardless of AHI

TOPIC 5: **Endocrine potpourri**

53 yo lady for EUA rectum/biopsy - rectal mass.
Recent colonoscopy

Issues:

- Potential neuroendocrine disease secondary to rectal mass - flushing, tachycardia, and sweats
- PET-avid thyroid nodule as well.
- Note: Patient thought she was peri menopausal.

Discussion:

- Endocrine discussion - carcinoid? Chromograffin A - mildly elevated. Not significant and no increased risk of Carcinoid disease or syndrome as per endocrine and surgeon.
- TSH - low 0.16. ? hyperthyroid. T3 and T4 pending. Would that be a reasonable explanation?
- Any further tests required? Can we test to see if patient is menopausal - discuss with Gynae

Plan:

- Free T3/T4 – normal
- FSH and LH – normal
- Discussed with endocrine : no further investigation or management indicated. Unlikely menopausal.
- Proceed to surgery.