



## “From the Trough”

### Perioperative Interest Group Notes

Based on Cases discussed at the Weekly PIG Clinical Meeting on 27<sup>th</sup> August 2020. Publication date 3<sup>rd</sup> September 2020.

Website: [www.perioptalk.org](http://www.perioptalk.org)

*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.*

**Attendance:** Paul Healey (Chair), Blair Munford, Angela Baker, Lachlan Frawley, Edward Ho, Lisa Doyle, Keith Streatfield, Lauren Paton, Victoria Fraser, Patrick Farrell, Michael Taylor, Neelam Bhala, Ben Bartlett, Gabrielle Papeix, N Stewart, H Bell, T Webb, Tim Wong, T Fernadu, Sarah Crosby, Ashok Dharmalingam, Mark Davies

#### **TOPIC 1: Could it be cancer?**

69 year old male for hepaticojejunostomy and gastrojejunostomy procedure with open pancreatic biopsies.

This patient had a 30 kilogram weight loss over 6 months, with multiple ERCPs, washings and endoscopic US with biopsies. There has been no diagnosis of malignancy. His initial Ca19.9 was very high, but normalised with decompression of biliary tree via ERCP.

#### Background

- AF on NOAC. CHADS2 = 3.
- CVA in 2014 with mild dysarthria and dysphagia.
- COPD and a current smoker (>50 pack years).
- Type 2 diabetes – no HbA1c available

The patient is functionally very poor at present. He reports an exercise tolerance of 50-100m. His DASI score is 3.9 METS. He relates this to fatigue secondary to inadequate intake. This is due to fullness from the abdominal mass that impairs his ability to eat.

#### Investigations

- Biochemistry normal
- Liver function tests abnormal – Albumin 27g/L. Bilirubin 135mcgmol/L. All others moderately deranged. Coagulation studies normal.
- Haemoglobin 121g/L. Normal iron studies.
- Spirometry: FEV1 2.5L – mild obstruction only.

This patient has had multiple biopsies as there is a pancreatic mass, this mass is growing and the surgeon is convinced that it is cancer. This is confusing the patient who thinks he has chronic pancreatitis. The surgeon is hoping to proceed with a palliative bypass procedure with open biopsy of pancreatic mass.

#### Discussion

- Difficult situation – potential for improvement via smoking cessation and nutritional improvement.
- However discussed with surgeon – at the last ERCP they could not pass the duodenoscope due to abdominal mass causing obstruction. Will be difficult to optimise nutrition via enteral route.
- Could TPN be indicated and for how long? Surgeon felt that the mass will worsen GIT and biliary obstruction before this could optimise nutrition and function.

## Outcome

- After discussion with surgeon and patient, the patient admitted to hospital – NGT inserted and feeding prior to surgery. Hospital admission forced smoking cessation for at least one week preoperatively.
- Patient discussed with procedural anaesthetist – ICU 2 bed booked for post operatively.

## **TOPIC 2: Chest pain – should we proceed?**

66 year old female for L3/4 and L4/5 laminectomy.

### Background

- Ischemic heart disease
  - AMI 8/2018. PCI to RCA with drug-eluting stent
  - Known coronary obstruction in LAD and LCx arteries. Not able to be stented in 2018.
  - Ongoing chest pain. Seen by cardiologist.
  - Optimal medical therapy – dual antiplatelets, beta-blocker, statin and was trialled on long acting nitrate.
- COPD
  - Current smoker (40 years)
  - Spirometry not performed.
- Depression

Self-reported DAS1 – 5 METS.

Discussion with patient's Cardiologist in Tamworth. Suggests non-invasive stress testing to guide risk prediction and if any evidence of ischaemia.

Sestamibi scan performed with dipyridole. No evidence of ischaemia. LV EF 70%. Patient did report chest pain before and during the test.

### Discussion:

- Is it ok to proceed on the basis of this information. The advice from the patient's Cardiologist is to proceed, as they would not angiogram this patient further on the basis of this information.
- Patient will have to cease both antiplatelets preoperatively? Is this necessary. In this case the surgeons had requested cessation for 10 days for clopidogrel and 7 days for aspirin. This was felt to be reasonable, however does increase the risk of cardiac complications. Some reported spinal procedures being done by some surgeons on aspirin. However bleeding risks are increased (eg POISE 2 trial).
- Smoking cessation should be reinforced. It is a key modifiable risk factor for this patient.
- There was a consensus to proceed to surgery for this case.

### **TOPIC 3: Nephrectomy with poor renal function**

80 year old male proposed nephrectomy for renal cell cancer.

#### Background

- Atrial Fibrillation- previous ablation
- Dilated Cardiomyopathy (EF 30%) and severe mitral regurgitation
- Chronic Kidney Disease -eGFr 30-40
- Recent endo-luminal AAA repair- under local anaesthesia

Surgeon concerned re fitness for procedure. The patient was referred for CPET at JHH.

The results and conclusions were:

- Blood pressure at rest 85/60, peak 90/60
- Peak VO<sub>2</sub> 15.2 mL/kg/min, anaerobic threshold (AT) 11.2 mL/kg/min, nadir VE/VCO<sub>2</sub> 41.6
- While the peak VO<sub>2</sub> and AT suggest he may cope with some of the physiological demands of surgery, his VE/VCO<sub>2</sub> is poor prognostically in the setting of heart failure.

#### Discussion

- Patient's life expectancy in Australia as a male is 80 years, he reports his current quality of life as good. He is content to get the best out of the time remaining.
- Risk of procedure would include – cardiorespiratory complications, and the high risk of renal failure and dialysis.
- This was discussed with the patient, and the potential non-surgical option of radiation therapy was raised. The surgical opinion was that this patient was a very high risk candidate, and felt that non-surgical options were a better option.
- Patient was eager to explore non-surgical options only.

#### Plan

- Patient was referred back to surgeon to further discuss and plan non-surgical options for management of renal cell cancer.

### **TOPIC 4: Left Upper Lobectomy - MRN 0091571 Howell**

A 70 year old Male for a left upper lobectomy for diagnosis of non-small cell lung cancer.

#### Background

- Obesity (103kg)
- CCF – preserved ejection fraction.
- Severe OSA – intolerant of CPAP
- Liver cirrhosis – Chid pugh A – episode of decompensated liver failure in early 2020. Likely secondary to excess alcohol. Now stable on medical therapy. However still drinks 2-3 standard drinks per day.
- COPD – ex smoker. FEV<sub>1</sub>/FVC: 2.3L/3.2L.
- Prostate cancer – radiation therapy.

## Medications

- Rifaximin
- Propranolol
- Spironalactone
- Thiamine
- Esomeprazole
- Multivitamin

## Other investigations

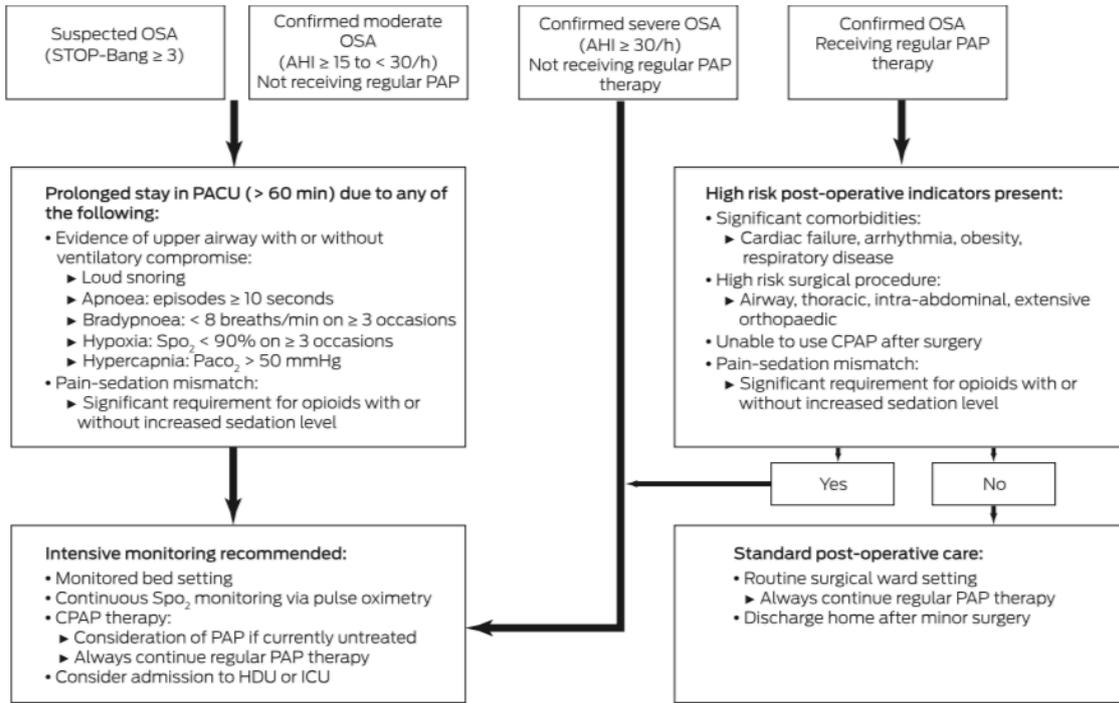
- Patient reports DASI of 6.6 METs. This is uncertain given other history.
- Pathology
  - Platelets 77 – for platelet transfusion preoperatively at request of surgeons.
  - Albumin normal, bilirubin mildly raised, AST and ALT mildly raised
- Stress echocardiogram – 1/2019 – NAD
- Echocardiogram – 4/2020 – LV: Grade 2 diastolic dysfunction. PASP estimated at 26mmHg.

Estimated mortality – NSQIP = 15%

## Discussion

- Rifaximin – Rifaximin is a poorly absorbed antibiotic that is thought to reduce ammonia production by eliminating ammonia-producing colonic bacteria. Many small studies have suggested that rifaximin is effective in treating acute hepatic encephalopathy and is extremely well tolerated. It should be continued perioperatively.
- Who should have alcohol detoxification preoperatively. This has recently been discussed with the Drug and Alcohol service at JHH. We have come up with a collaborative document that is to be presented to the surgical and anaesthetic departments. They recommend in-hospital detoxification at JHH or Lakeview if alcohol intake in excess. Note this has to be agreed to by surgeon and managed by the surgical team. This currently has varying degrees of agreement and application. There was some concern that all beds in the hospital would be taken up by people detoxing if we did this for the appropriate patients!
- Liver disease – previous liver decompensation indicates fragile liver function and increased risks for episode in the perioperative period secondary to surgical stress and medications.
- Untreated OSA in the perioperative period: there was much discussion about the optimal management of these patients. There was consensus that patient with significant OSA and opioid requirement post operatively are best monitored in ICU post operatively. Some raised the issue of alternate structured wards with respiratory monitoring (would need SaO<sub>2</sub> and respiratory rate monitoring). See attached Australian paper with example of flowchart for assessing who should have increased monitoring, including an assessment in Recovery (Holt et al 2019)

**4 Postoperative risk stratification and management of patients in post-anaesthesia care unit (PACU) with confirmed or suspected obstructive sleep apnoea (OSA)\***



AHI = Apnoea-Hypopnoea Index; BMI = body mass index; CPAP = continuous positive airway pressure; HDU = high dependency unit; ICU = intensive care unit; Paco<sub>2</sub> = arterial partial pressure of carbon dioxide; Pao<sub>2</sub> = arterial partial pressure of oxygen; PAP = positive airway pressure; SpO<sub>2</sub> = peripheral oxygen saturation measured by pulse oximetry. \* Adapted from Seet and Chung<sup>31</sup> and Hillman and Chung<sup>32</sup> and from the ASA<sup>33</sup> and SASM<sup>33</sup> guidelines. ♦