



“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 9/9/21

TOPIC 1: Coeliac stent for suspected Mesenteric angina

45yo male for an aortogram, mesenteric angiogram +/- coeliac artery stent via R CFA +/- brachial approach. Interesting case for discussion.

Background

- ? Mesenteric angina
 - Laparoscopic median arcuate ligament release 2021 due to weight loss, nausea, chest/abdominal pain.
 - Ongoing symptoms requiring admission to hospital in August – chest pain, SOB, 3 x syncopal episodes.
 - Weight loss now 25kg
 - Carotid dopplers, TTE, stress TTE, CTPA, CTB, troponins and ECG all negative.
 - ED presentation September with same symptoms after clopidogrel loading.
 - Abdominal angiography showed ongoing 90% coeliac artery stenosis
 - Plan for stent in lab 4.
- Childhood asthma
- Quit smoking 2020 (20PYH)
- Depression and anxiety

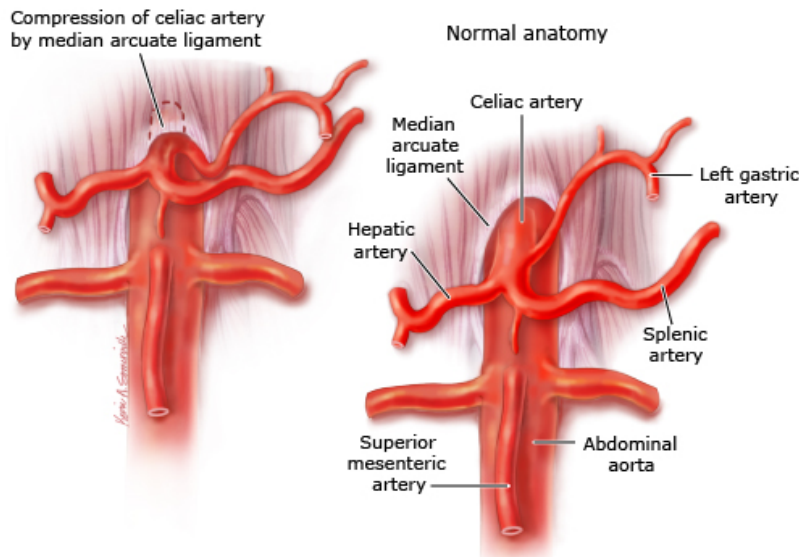
Issues

- **Unusual symptoms: any concerning causes not fully elucidated?**
 - Difficult to think of any investigation that hasn't been done!
 - Possible vagal episodes (causing syncope) due to pain
- **Procedural risks?**
 - At initial laparoscopic ligament release, substantial bleeding risk flagged to anaesthetist.
 - bleeding risk with *this* procedure?
- **Anaesthetic technique?**
 - Tempting to avoid GA given history however conversion to GA in an emergency may be challenging.

- Also potential for long ++ procedure (from limited experience from the group) making light sedation challenging.

Discussion

- **What is median arcuate ligament syndrome? (from Uptodate)**
 - A.k.a. coeliac axis syndrome, coeliac artery compression syndrome, Dunbar syndrome.
 - Recurrent abdominal pain related to compression of the coeliac artery by the MAL.
 - Symptoms may be ischaemic or neuropathic.
 - Triad: post-prandial abdominal pain, weight loss, abdominal bruit.
 - 30yo+, 4 x more common in women
 - Careful patient selection for intervention needed, as may be an incidental finding in asymptomatic people, or not clearly related to symptoms due to another cause.
 - Treated initially with a laparoscopic ligament release. Second line treatments include ganglionectomy, percutaneous revascularisation or surgical revascularisation.



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Plan

- Procedural anaesthetist notified -> will discuss bleeding risks with surgeon on the day and have blood available in lab 4 if thought prudent (nil previous Abs)
- GA thought to be safe and appropriate
- Nil further investigations

TOPIC 2: Severe HOCM and facial cancer recurrence

73yo male with a local recurrence of SCC around the cheek/infra-auricular area.

Background

- Facial SCC - WLE, neck dissection and radiotx March.
- DASI 6.6 METS

- PD – minor speech and swallowing changes
- Polycythaemia rubra vera – hydroxyurea and venesections q3/12
- Iron deficiency anaemia
- NHL – Chemotx, treated

Issues

- HOCM
 - Known since 2016, mod on TTE
 - Cardiologist review due to 6/12 history of worsening SOB
 - SOB and angina with slight inclines
 - TTE Aug '21 showed severe LVOT obstruction, gradient 86mmHg
 - Cardiologist commenced beta-blocker
 - Ongoing review – Holter to look for ventricular tachydysrhythmias, ? will need defib, ? add disopyramide.
 - Family to be referred for genetic testing
- Timing of procedure
 - Ongoing cardiac workup and modification
 - Surg team keen to avoid delays where possible, due to previous local metastasis
- Anaesthetic technique – surg reg suggests could be done under LA
- Airway
 - Moderately difficult BMV and grade 2 laryngoscopy in March
 - Patient notes reduced MO since radiotx

Discussion

- Anaesthetic technique
 - LA spread may be unreliable due to previous surgery
 - Concerns about sedation with likely difficult airway if conversion to GA required mid-case
 - Low physiologic stress procedure. Stress not appreciably reduced by loco-regional technique rather than GA.
 - HD stability desirable with HOCM
- Timing
 - Thought that if Holter reassuring and asymptomatic from recent beta-blocker addition, then appropriate to proceed without delays to cancer surgery.
 - Likely that the degree LVOT obstruction is unchanged since previous anaesthetic in March, which was well tolerated.

Plan

- Discuss Holter result with cardiologist - further treatment adjustment needed? disease severity likely stable since March.
- Notification of procedural anaesthetist – airway assessment and plan on DOS. Patient aware that AFOI may be required.

TOPIC 3: Recent PCI v. base of tongue cancer

Incidental finding of PET-avid lesion at base of tongue, thought likely to be cancer. PET scan arranged due to incidental finding of RLL lesion during CTPA (RLL lesion not PET-avid, non-concerning)

Background

- IHD – recent angina (not ACS), 90% LAD lesion 2 x stents placed 2/7 ago. Surgery planned in 1wk. Symptoms now resolved.
- Indigenous
- Ex-heavy smoker
- HTN
- ? OSA – high STOPBANG but low ESS
- High BMI
- Ex-tol > 4 METS

Issues

- Surgery timing
 - Usually the minimum time frame between PCI and surgery is 1/12 (based on most recent evidence J Am Coll Cardiol 2016;68:2622–32 and NEJM DOI: 10.1056/NEJMoa2108749) however this is cardiologist dependent. Other relevant factors – stent location, number, caliber, overlaps, branching.
 - See attached article
 - Discussions documented between surgical and cardiology teams suggest that everyone is in agreement with a plan for surgery and cessation of DAPT for 7d prior.

Discussion

- Patient at high risk of stent thrombosis if surgery proceeds now.
- Availability of emergency PCI on site is ideal, however being an LAD lesion, stent thrombosis may be fatal due to large myocardial territory at risk.
- Could aspirin be continued at the minimum?
- Would TTE be beneficial?
 - Reassuring exercise tolerance and absence of any symptoms.
 - Long term LAD ischaemia can lead to significant LV dysfx.
 - Low risk/stress surgical procedure

Plan

- For discussion with surgical and cardiology teams to ensure that there has been no miscommunication about the timeline and to query if aspirin, at least, could be continued.
- For TTE if time allows but wouldn't delay surgery to obtain.
- *Update: Cardiologist contacted – unaware that the procedural cardiologist had stented the vessel (rather than just angiography) and so yes, surgery will need to be delayed for 1/12 of DAPT.*

TOPIC 4: Myotonic dystrophy risk, peripheral hospital

26yo female for laparoscopic cholecystectomy at a small peripheral hospital.

Background

- Myotonic dystrophy type II “carrier” (based on genetic testing)
 - Father developed symptoms at 60yo
 - Thought likely that this patient will have the same progression, but currently asymptomatic
 - Uneventful muscle relaxant anaesthesia previously.
- Open ASD repair '20. Incidental finding after Ix for atypical chest pain.
- Normal TTE post ASD repair.
- Neuropathic chest wall pain
- 3 x episodes of cholecystitis requiring hospitalisation

Issues

- Correct care location (small peripheral hospital, no ICU)

Discussion

- **Care location**
 - Reassured by absence of clinical symptoms of MD and by recent uneventful anaesthetics
- **Surgery needed?**
 - Multiple hospital admissions. Consensus was that surgery should proceed or more severe episodes and requirement for emergency procedures will ensue.
- **What are myotonic disorders?**
 - Persisting active muscle contraction after cessation of effort.
 - Myotonic dystrophy is the most common form, caused by altered chloride conductance.
 - Onset usually in 20-40s, death by 50-60s
 - Extramuscular features include
 - CVS: conduction abnormalities, cardiomyopathy, mitral valve prolapse
 - RS: restrictive defect, OSA
 - Other: delayed gastric emptying, dysphagia, hypothyroidism, DM, intellectual impairment, baldness, testicular atrophy.
 - Obstetric implications: exacerbation of muscular and CVS effects, uterine dysfx leading to CS and PPH, preterm labour.
 - Anaesthetic implications:
 - Avoid exacerbants: cold, shivering, DMR, surgical manipulation and diathermy
 - Resistance to NDMR
 - High muscle tone despite regional anaesthesia
 - AChE may provoke contraction
 - CVS/RS depressant sensitivity
 - MH association
 - Aspiration risks

Plan

- Proceed with surgery as planned.

TOPIC 5: Update – Super Morbid Obesity for hysterectomy

26yo, 197kg, female with grade 1 endometrial cancer for laparoscopic hysterectomy after failed treatment with Mirena for endometrial cancer.

Background:

- Endometrial cancer - being treated with mirena/curettes.
- Nulliparous woman, keen to have children, may do so via surrogate with egg donation.
- 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 review by respiratory physician despite repeated attempts from team.
 - HCO₃ and PaCO₂ normal on ABG, so no e/o obesity hypoventilation
- High BMI ++

Update:

- **Weight reduction surgery**
 - Surgery possible locally under the umbrella of 'severe reflux surgery' (allowing gastric bypass) or with support from a local MP (allowing a gastric sleeve)
 - GP to refer to local public surgeon
 - Wait time ~ 12mths which allows substantial engagement with the service's dietician, which is critical to success of the procedure
- **Gynae surgery**
 - Occurred several weeks ago.
 - Combination of intra-abdominal laparoscopic and per-vaginal endoscopic ("natural orifice surgery") approaches used which allowed minimisation of Trendelenburg requirements and abdominal insufflation pressures, both of which were poorly tolerated due to this patient's body habitus.
- **What is Natural Orifice Transluminal Endoscopic Surgery (NOTES) (from Uptodate)**
 - Developed in 1990s
 - Initial route was per-gastric however other orifices used include transanal, transvaginal, transurethral/transcystic, and transoesophageal.
 - Has been used for peritoneal explorations, pancreatectomy, splenectomy, nephrectomy.
 - Hypotheses
 - A hole in a viscus may be better tolerated than in the abdominal wall, leading to less pain, adhesions, hernias.
 - Absence of cosmetic scar

- Better access to certain areas, especially in the super obese patient (*relevant in this patient*)
- Possibly shorter hospitalisations and healthcare costs
- Concern persists around risks of bacterial contamination and abscess formation.
- Low incentive to move from the experimental phase (in most instances) due to lack of standardisation/protocols, training, and requirement for specialised instruments.