"From the Trough"

Perioperative Interest Group Notes

Based on Cases discussed at the Weekly PIG Clinical Meeting on 9th November 2017. Publication date 23rd November 2017.
Website: 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.

TOPIC 1: *Timing of surgery after acute illness*

Patient is a 77 year old male with a recent history of obstruction to common bile duct with jaundice and sepsis, which has resolved after ERCP. He is now a symptomatic and 'well', no longer jaundiced and LFTs normalising. Still in hospital. Past medical history includes AF on warfarin, pacemaker (PPM), and cardiac failure (ejection fraction 20%, severely enlarged LV and LA, pulmonary hypertension with peak pressure 62 mmHg)

Questions: Is the patient appropriate for surgery? Laparoscopic or open? Now or when?

Discussion: - The recent echo is concerning and seems inconsistent with reported exercise tolerance prior to this illness. - Is there a previous echo that can be compared? This may clarify if there has been recent deterioration (An echo from 8 months previously had similar findings: - this is 'reassuring' in that there has been no deterioration!)

2. Although the oft-quoted hazards of pneumoperitoneum causing a deterioration unpredictably are recognised, at low pressures the advantages of laparoscopic surgery still favour this approach. The operation needs a skilled surgeon who can convert to open appropriately. Not a teaching case…

3. Timing of surgery: - General consensus would be to wait for about 4 to 6 weeks after ERCP. Even though the patient may be biochemically recovered before this, there is a clinical consensus that 'it takes time to recover from acute illness'. Experience found with recovery after brain injury, after major trauma, or other intensive care illness suggests that there is something about recovery from major illness that we cannot track at this stage but is nevertheless a real entity. Therefore the consensus was to suggest that the patient should be booked for about 6 weeks' time, and should be reassessed about 1 week beforehand in the clinic. There should be a warning to the procedural anaesthetist prior to the case.

4. The relevance of CRP as a marker of recovery of acute inflammatory illness was unclear and has been a subject of recent discussion in the medical social media (Twitter etc.).

5. As advocated in Canadian Guidelines, BNP may be useful to clarify cardiac failure although it must be expected that it would be considerably raised in this patient.

TOPIC 2: *Unexpected post-operative death: Role of post mortem*

A patient of 75 having a knee replacement, died on day 2 due to "sudden cardiac death". Pre-morbid condition included type 2 diabetes and stable ischemic heart disease, and Warfarin for atrial fibrillation. The pathologist decided that no physical post-mortem was necessary and that the cause of death could be assigned as an AMI. On chart review there was nothing abnormal preceding the death. The anaesthetic and immediate post- operative course was normal. Would there have been value in a post mortem? Opinions varied: - Some feel that even in current times there is value in a classical post mortem in this situation. There may be a role for CT scanning post mortem but this may not provide any further information that was already known.

TOPIC 3: *Highlights of American Society of Anaesthesiologists meeting.*

'Perioperative Brain Health Initiative'

The ASA has launched this multidimensional initiative in association with other medical groups and influential aged patient advocacy groups. It brings together information and clinical resources that can 'promote brain health for older adults around the time of surgery'. The language used in the project deliberately takes the emphasis off discussion of cognitive injury and recovery after surgery, and de-emphasises the vexed question of the possible role of volatile or other anaesthetic agents in causation of post-operative cognitive dysfunction. Instead it places emphasis on the known but often overlooked "simple" strategies for preventing cognitive deterioration, and improving cognitive recovery after surgery. This includes avoiding drugs that may be encountered in the perioperative period that may exacerbate pre-existing cognitive impairment (such as major tranquilisers, benzodiazepines and anti-histamine sedatives). It emphasises the need for good 'simple' hospital care to maintain sleep hygiene, careful attention to orientation of patients to the hospital environment, early detection and treatment of infection, maintenance of orientation to time, place, purpose and events, and optimisation of analgesia.

A website that assembles useful resources on this complex topic has been produced that is (of course) available to the public. See: - *https://www.asahq.org/brainhealthinitiative*. Patients are prompted to consider issues using the acronym MEDIA (Have you had any problems with **m**emory? Have you had any **e**pisodes of confusion, unconsciousness, or memory loss? Are you using any **d**rugs for memory? Are there **i**tems that you can bring to hospital to help with orientation (photos, familiar music etc.) Remember to bring **a**ids to hospital if necessary (eyes, hearing aids, teeth etc.).

Patient-Centred Outcomes after Surgery

The appropriate measurement of outcomes from surgery is an increasing focus of discussion. Paul Myles (who received an award recognising his contribution to anaesthesiology research) presented the idea of days at home at 30 days as a standard patient-centred outcome that is (relatively easy to define and measure, and has with more relevant meaning than simple postoperative survival. (Abbreviated DAH30, and colloquially referred to as "happy days" post operatively.) The proposal seemed to be generally well received. Incorporation of a Quality of Life adjustment would be more meaningful, but considerably more difficult.

REFERENCE Myles PS, ShulmanMA, Heritier S, Wallace S, McIlroy DR, McCluskey S, Sillar I, Forbes A. Validation of days at home as an outcome measure after surgery: a prospective cohort study in Australia *BMJ Open* 2017;7:e015828. doi:10.1136/bmjopen-2017-015828

The Dying Brain

A discussion on "cognition and the dying brain" was particularly interesting, focusing initially on the phenomenological reports from multiple cultures and throughout history of near death experience, and then reviewing physiological findings such as EEG recordings from patients at the moment of death. The lecture finished with a standing ovation.

Transcripts and recordings of the major lectures are available. (Contact the PIG convenor)