"From the Trough"

Perioperative Interest Group Notes

Based on Cases discussed at the Weekly PIG Clinical Meeting on 5th April 2018.
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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: Ross Kerridge, Candice Peters, Libby Freihaut, Ashok Dharmalingam, Michael Dobbie, Anna Carter, Jess Gani, Tom Walker, Phil Holz

TOPIC 1: Anaesthesia consultations before surgical consultations – the future?

82 year old woman from greater than 400 kilometres arrived for consultation with the perioperative service before a subsequent consultation with gynae oncology. The patient had a history of post-menopausal bleeding and had a previous curette under spinal at another hospital which had given a diagnosis of endometrial carcinoma, for which surgical treatment was contemplated (extended hysterectomy).

Comorbidities of severe chronic airways disease (FEV1 0.6 Litres) but lives independently. History of bullous emphysema with a pneumothorax treated by a thoracotomy in 2012. No hospitalisation since then but this may have been prevented by her attentive GP who intervenes early with steroids and antibiotics when there is signs of an early chest infection. Past carotid endarterectomy, atrial fibrillation on dabigatran. 'Battle scarred' abdomen. Surprisingly good exercise tolerance. As the consultation was before seeing the surgeons, it was not clear what the surgical plan was. Despite the comorbidities, it was felt that surgical care at accepted high risk could be feasible. Discussion about advanced care planning took place before seeing the surgeon.

The patient then saw the surgeon. Although the anaesthetists had indicated the patient would be an acceptable patient for surgery if there was great benefit from surgery, the surgeon was also concerned by the complexity of surgery and the "battle scarred abdomen" (laparoscopic surgery would not be feasible) and felt that a non-surgical treatment with radiotherapy was an acceptable outcome. The patient was willing to accept this.

The case emphasises the need for interdisciplinary communication. The surgeon may have presumed that the patient would be absolutely unacceptable for surgery, although after anaesthetic assessment, it is felt that surgery should not be completely ruled out as an option. Equally, the anaesthetic assessment needed to be informed by knowledge of exactly what the surgical plans were. Early anaesthetic assessment can help appropriate multidisciplinary decision making in a case such as this. Although it has traditionally been unusual for patients to see anaesthetists before surgeons, maybe this is the future.

Question: - What is the rationale for medical vs surgical management for endometrial cancer? (Information supplied by surgeons Ken Jaaback and Yvette Ius).

Endometrial adenocarcinoma should almost always be treated by hysterectomy and BSO. Results are awaited of the FEMME trial which may support a more conservative approach in some cases.

At present, if the pathology confirms a grade 1 adenocarcinoma and MRI suggests there is no or minimal invasion then it is reasonable to consider a non-operative strategy. This will usually be

insertion of a Mirena IUS at hysteroscopy followed by further hysteroscopy 6 months later to replace the Mirena and check histology. If adenocarcinoma remains then we should either consider surgery or radiation (intracavitary and pelvic).

Conservative approach is warranted if further childbearing is sought or if either the patient or the surgeon is unlikely to survive the operation! Some of the patients have multiple comorbidities and their life expectancy without cancer is likely less than five years in which case we should have a slightly less aggressive approach in mandating a hysterectomy.

(SEE more detailed notes attached)

From Conferences: - The MANAGE Trial

The MANAGE trial was presented at the recent American Current College of Cardiology Meeting in Orlando Florida March 2018. This study was led by Canadian PJ Deveraux (of POISE, VISION and other studies), who has advocated the importance of diagnosis and treatment of MINS (Myocardial Injury in Non-cardiac Surgery), and is a leading author of the recent Canadian Guidelines on perioperative cardiac assessment emphasising biomarkers (e.g. BNP & Troponin) rather than functional preoperative assessment based on diagnosis of inducible ischaemia.

The MANAGE trial intervention was to give dabigatran 110mg bd to patients after MINS. Outcomes were major vascular events and bleeding complications. The trial showed patient benefit without increase in major bleeding events.

Although the trial was positive for the intervention, the presentation was controversial and there was very 'active' debate. In particular, the definition of 'major bleeding' complication was seen as excluding bleeds that many would consider significant. More patients receiving dabigatran experienced lower gastrointestinal tract bleeding and minor bleeding compared with patients receiving placebo. 45.3 percent of those on dabigatran discontinued the drug (14 percent because of a major complication). The trial was terminated early due to loss of funding and slow enrolment.

At this time the trial results have not been published, so reports are only based on the conference abstracts and commentary. (SEE more detailed notes attached)

From the Literature: - Normal Salines versus Balanced Salt Solutions

Have we finally got an answer?

A recent New England Journal of Medicine reports two pragmatic cluster-randomised trials conducted at Vanderbilt UMC , Nasville, comparing normal saline versus balanced salt solution (Hartman's.) In critical care patients, there was a difference in both length of hospital stay and other outcomes such as acute kidney injury. In non-critical care patients, there was no difference in hospital length of stay or mortality; however there was a difference in AKI rates. There is an accompanying editorial by Australia's John Myburgh, although he focuses more on the outcomes used in the trial. These results are consistent with the results of Rinaldo Bellomo, David Story, and coworkers at the Austin Hospital in Melbourne 2012. More evidence that 'normal saline' is anything but 'normal'.

(On the topic of fluids:- Just as there have been recurrent drug shortages arising from supply issues, there have been shortages of supply of intravenous saline in the USA.)

Self WH et al, SALT-ED Investigators. Balanced Crystalloids versus Saline in Noncritically Ill Adults. NEJM 2018; 378(9):819-828.

Semler MW et al SMART Investigators and the Pragmatic Critical Care Research Group. Balanced Crystalloids versus Saline in Critically Ill Adults.NEJM 2018;378(9):829-839,

Yunos NM, Bellomo R, Hegarty C,Story D, Ho L, Bailey M. Association between a chloride-liberal vs chloride-restrictive intravenous fluid administration strategy and kidney injury in critically ill adults. JAMA 2012; 308: 1566-72.