"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 18/3/21

TOPIC 1: IVC filter

70s year female presents for resection of floor of mouth SCC and neck dissection + tracheostomy.

Background

- Hypertension and Asthma
- Had attempt at same surgery in December 2020. Unfortunately complicated by vascular injury during tracheostomy. This required sternotomy and repair.

Discussion

- HITTS – diagnosis via HITTS antibody, although low specificity (high false positive rate), with definitive diagnosis with serotonin release assay (usually takes 2 weeks).
- Absolute contra-indication to heparin and clexane
- IVC filter – data generally does not support use in perioperative period. May be suitable for patients with high thrombus burden in lower limbs and contra-indications to anticoagulation for extended period. Major issue is failure to remove and loss to follow up. They are difficult to remove once in long period of time due to fibrosis in vessel.
- See attached European guidelines (summary below)

Plan

- Patient reviewed by haematologist and discussed with colleagues. Noted that there was an even split on for and against IVC filter preoperatively!
- Following a discussion between surgeon and haematologist and interventional radiology a decision was made to cease NOAC 72 hours preoperatively and place IVC filter 24 hours preoperatively.
- Note that heparin was contra-indicated intra-operatively for use during vascular flap resection. Post op plan for fondaparinux for thromboprophylaxis.
- Postscript – procedure successful and patient now on ward.

EJA

Eur J Anaesthesiol 2018; **35:**108–111

GUIDELINES

European guidelines on perioperative venous thromboembolism prophylaxis

Inferior vena cava filters

Raquel Ferrandis Comes, Patrick Mismetti and Arash Afshari, for the ESA VTE Guidelines Task Force

To conclude, evidence from low-quality studies or registries, with small numbers of patients and conflicting findings, does not allow a strong recommendation for or against the use of IVCFs. Therefore, as this lack of compelling evidence results in an unclear balance between benefits and potential harm, the recommendations for IVCFs remains inconclusive. IVCFs should be considered only in patients at very high risk of pulmonary embolism, such as a recent history of VTE, and in perioperative situations with a very high bleeding risk resulting in a prolonged contra-indication to pharmacological prophylaxis. This use should be discussed with experienced teams.

TOPIC 2: Post operative cardiac monitoring

50s male presents for TURP. Abnormally ECG picked up in the community incidentally by GP prior to this surgery.

Background

Fit and well
No family history of cardiac disease or sudden cardiac death

Issues

- ECG demonstrated Brugada type pattern.
- Patient reviewed by local cardiologist and referred for genetic studies to help quantify long term risk of sudden cardiac death. This will help inform decision regarding managing risk for self and testing for other family members.

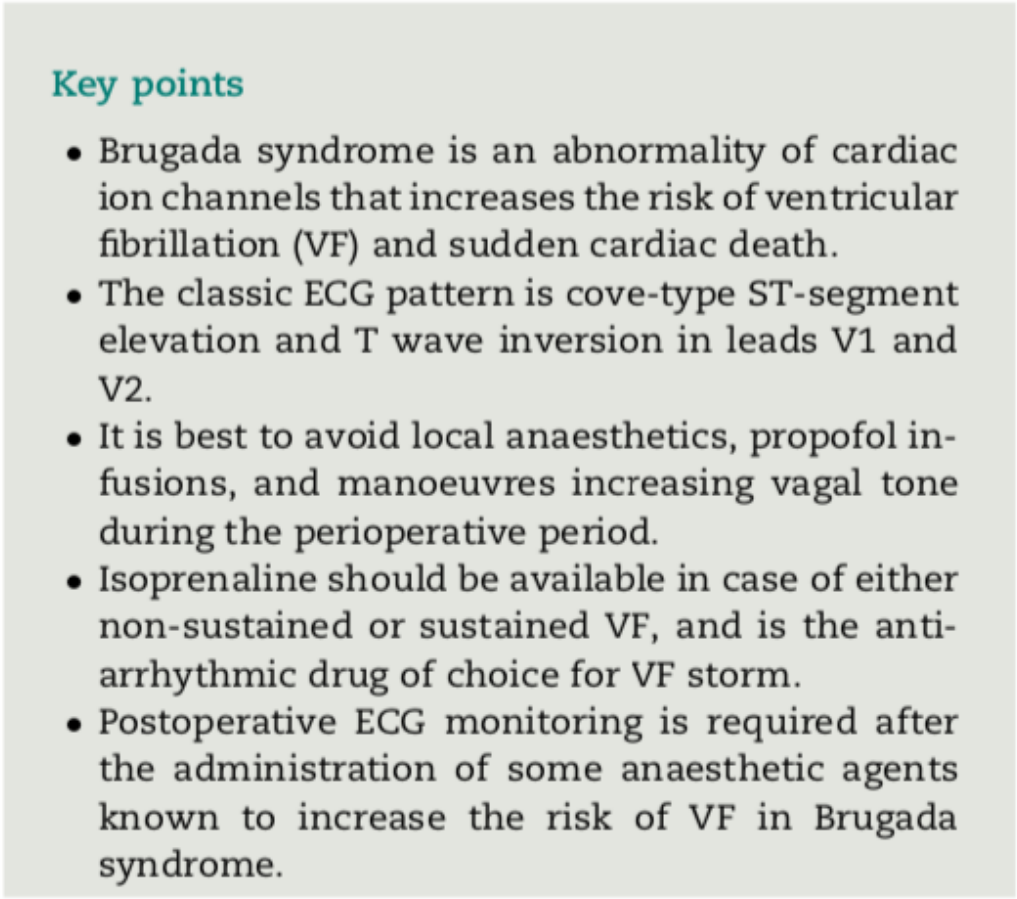
Discussion

- Implications of Brugada syndrome for anaesthesia (see attached paper – summary below)

- Discussed with patient's cardiologist – OK to proceed. Recommends post op telemetry

Plan

- Confirmed need for ECG monitoring post operatively with Cardiologist.
- Planned for telemetry monitoring on F3 or G3. No indication for ICU monitoring post operatively



Key points

- Brugada syndrome is an abnormality of cardiac ion channels that increases the risk of ventricular fibrillation (VF) and sudden cardiac death.
- The classic ECG pattern is cove-type ST-segment elevation and T wave inversion in leads V1 and V2.
- It is best to avoid local anaesthetics, propofol infusions, and manoeuvres increasing vagal tone during the perioperative period.
- Isoprenaline should be available in case of either non-sustained or sustained VF, and is the antiarrhythmic drug of choice for VF storm.
- Postoperative ECG monitoring is required after the administration of some anaesthetic agents known to increase the risk of VF in Brugada syndrome.

TOPIC 3: Diabetic control perioperatively

55 year old male for ACDF for neck and arm pain.

Background

- Hypertension
- Type 2 Diabetes Mellitus – recent HbA1c 10.7%. Patient variably compliant with insulin therapy

Issues

- HbA1c discussed with surgeons. Agreed to defer OT for 3 months to allow optimization. Noted that patient did not have myopathy with urgent indication for surgery.
- Patient abusive on phone when told. Hung up phone multiple times on nursing and medical staff in clinic.
- Patient also threatening GP clinic for sharing HbA1c data with Perioperative staff.

Discussion

- Difficult situation.
- Patient in denial about significance of chronic disease.
- Emphasised the importance of decision made in consultation with surgical team. There may be surgical indications to perform surgery in patients not ideally optimized from the diabetic control.
- The use of a guideline written in consultation with Endocrinologists provides support for clinical decision making.

Plan

- Discussion with patient liaison officer. Requested their assistance with management of patients complaints and concerns.

TOPIC 4: COVID Vaccine and elective surgery

With the rollout of COVID vaccine across the community, it is likely that patients presenting to the Preoperative clinic will be potentially having vaccine around time of surgery.

Discussion

- It seems reasonable to plan for patients who will have questions about vaccination in perioperative period.
- There are guidelines around vaccination and surgery. This is usually an issue for paediatric practice (See summary of guidelines below and attached paper).
- There is a recent paper published by the Royal College of Surgeons in the UK to provide guidance for patients having COVID vaccine in the UK (see attached paper).
- The main issue to consider is the vaccine may give some systemic events, such as a fever and chills, within 1-2 days after vaccination, but these resolve soon after. It is reported normally to settle fully within a week. Such a fever is uncommon after dose 1, but occurs in about 15% after dose 2.

Plan

- The following recommendations will be discussed with the surgical services team and be distributed to surgeons, anaesthetists and admissions staff:
    - Essential urgent surgery should take place, irrespective of vaccination status.

- Non-urgent elective surgery can also take place soon after vaccination. There is some rationale for separating the date of surgery from vaccination by a few days (at most 1 week) so that any symptoms such as fever might be correctly attributed to the consequences of either vaccination or the operation itself.
- We recommend 5 days between vaccination and elective surgery.
- Vaccination can take place after surgery as soon as patient has recovered.

Pediatric anesthesia

Table 2. Guidelines and statements on vaccination and anesthesia

Society	Summary
American Academy of Pediatrics [45]	There are no contraindications to vaccine administration near surgery or anesthesia. Vaccination during the hospitalization or at discharge is encouraged. For moderately or severely ill patients, vaccination is encouraged as soon as patients' clinical symptoms improve.
Australian government of Health http://www.immunise.health.gov.au	Vaccines me be administered as per the routine schedule or during a procedure for a person in a special risk group. In case of postponing and elective surgery and anaesthesia are to be postponed, it may be performed 1 week after inactive vaccination and 3 weeks after live attenuated viral vaccination in children. Routine vaccination may be deferred for 1 week after surgery. Some vaccinations should be postponed if a patient receives any blood products.
Association of Paediatric Anaesthetists of Great Britain and Ireland http://www.apagbi.org.uk/publications/apa-guidelines	Delay surgery 48 h post vaccination with inactivated vaccines perioperatively. If child well at time of immediate preoperative assessment, no reason to delay. There is no contraindication to vaccination immediately after surgery, providing that the child does well. Normal vaccination schedule should continue. Vaccination side effects should be considered for major surgery with prolonged postoperative recovery period.
Advisory Committee on Immunization Practices http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5515a1.htm	Vaccines should be administered before surgery or as soon as the person's condition stabilizes after the procedure. Pneumococcal, meningococcal, and Hib vaccines should be administered at least 2 weeks before elective splenectomy, if possible.