Oesophagectomy Post-operative Management

Oesophagectomy has one of the highest mortality rate of any elective operation (>5%)

- Oesophageal tumours are excised by the Ivor Lewis (ILOG) technique with separate abdominal and right thoracic incisions.
- Increasingly the abdominal component maybe performed laparoscopically or the thoracic component performed thoracoscopically.

Aim of Management

- Early extubation – Often already completed in theatre
- Effective analgesia – Ability to deep breath, cough, and cooperate with physiotherapy
- Prompt diagnosis and management of complications – Ischaemic anastomosis, anastomotic leak, & respiratory failure. Regular ABGs to assess for acidosis/lactate which may indicate above complications.

Admission

- Assess ABC as you would with all ICU admissions

- **Monitoring**:
  - Standard ICU monitoring (inc. ECG with ST monitoring)
  - Development of AF is quite common due to the proximity of the operative site to the pericardium. The occurrence of new AF on the 2nd or 3rd postoperative day should raise suspicion of anastomotic leak
  - Check Epidural pump - functioning/rate recorded

- **Drains**
  - Check Intercostal Drains (ICD) are 'swinging' and that the fluid in the underwater seal drains are at the correct levels, ensure junctions between drain/tubing are taped together securely
  - 2 right (posterior is basal, anterior is apical) intercostal drains (ICD), an abdominal drain, +/- left ICD
  - Naso-gastric (NG) tube – ensure securely in place. Will be secured by a bridle from theatre. Note the NG is really a naso-oesophageal tube. The role of this tube is to sit in the mid oesophagus above the anastomosis and decompress it. **No fluid, feed or medication should ever be given down this.** The NG tube must be left on free drainage and aspirated regularly.

- **Fluid management**
  - Standard background maintenance with 0.18% Nacl/4% Dextrose
  - Fluid bolus – give 250ml plasmalyte bolus, it is not uncommon to require additional fluid bolus on admission to ICU but this should not be excessive (limiting fluid administration has been shown to improve patient outcomes)

- **Perfusion**
  - Maintain haemoglobin > 8g/dl
  - Low dose Noradrenaline infusion for epidural hypotension rather than aggressive fluid resuscitation

- **Drugs/Electrolytes**
  - Ensure potassium and magnesium electrolytes are upper limit of normal to reduce risk of AF
  - Pantoprazole 40mg IV daily (converted to lansoprazole down jejunostomy once in use)
  - Dalteparin 5000units daily
  - Jejunostomy flush 20mls sterile water BD (prescribed on Kardex)
  - Paracetamol 1gram IV QDS (check patient weight)
  - Tramadol 50-100mg PRN IV for shoulder tip pain
  - Add in PCA if pain not well controlled with epidural

- **Epidural**
  - Mid-Thoracic Epidural Infusion 10ml/hr 0.1% Levo-Bupivacaine + Fentanyl 2micrograms/ml
  - Note the rate of epidural can be increased if necessary
  - Epidural top-up – 10ml from infusion bag for abdominal/thoracic pain
  - Epidural – Maintain for 4 to 5 days
  - Day 4/5– Halve infusion rate > if after 2 hour there is acceptable pain control > stop infusion and remove the epidural catheter. Ensure:
    - 12 hours should elapse after LMWH is given before removing epidural
    - The next dose of LMWH should not be given until at least 4 hours after removing the catheter

Post-Operative Course and Management

1. Daily Bloods
2. Arterial Blood Gases (ABG) should be taken if there is clinical concern. An unexplained acidosis and/or increasing lactate in the early postoperative period may be due to gastric ischaemia -> urgent surgical consultation.
3. Chest X-ray – as indicated by clinical changes – infection, collapse, atelectasis are all common, it may also show evidence of possible pneumothorax, or evidence of leak
4. Non-invasive ventilation (via fitted face mask), High Flow Nasal Cannula (HFNC) and BIRD should only be used on patients only where the NG tube remains patent and with consultant or surgical approval. The NG tube must be left on free drainage and aspirated regularly so that the anastomosis can be decompressed.
5. Positioning – Patient should **never lie flat** in the early postoperative period – The absence of lower oesophageal sphincter increases the risk of aspiration
6. Feeding – Jejunal feeding may commence ≥ 24 hrs postoperative as per surgical direction
7. Liaise with physiotherapists and encourage early mobilisation of the patient.
   - Into chair on first post-operative day

Wound Care

- Chest drain site – (See unit policy) cover with mepore or absorbant dressing like aquacell foam
  - **Do not cover** with occlusive dressing
- Surgical wound – Mepore dressing (leave exposed if clean and dry)
- Clips removed
  - Day 10 – Abdominal & Thoracic wound

Discharge

- Remove invasive monitoring lines before discharge
- Central line can stay if required for TPN

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