GUIDELINE: TUBE TAMPONADE IN BLEEDING VARICES

Indications:
- Failure of control of bleeding at endoscopy:
  - Therapeutic failure
  - Inadequate therapy
  - Inability to apply therapy
- In severe bleeding a decision to insert tube, prior to endoscopy, is weighed against risks in an emergency situation eg. proportion of bleeding in liver disease not variceal, pre-endoscopy insertion has higher complication rate.

Contraindications:
- Esophageal stricture
- Recent EG junction surgery

Complications/risks:
- Esophageal perforation
- Aspiration
- Asphyxiation
- Pain
- Pressure necrosis: nose, lips, tongue

Preparation:

Equipment tray:
- Mouth guard
- 50 ml syringe
- 50-60 ml irrigating syringe
- 4 tube clamps
- Scissors

Recommendation:
- Check tray regularly.
- Be familiar with the tube and equipment.
- Check tube before insertion, familiarise with the ports/balloons, inflate balloons, options for clamping and unclamping ports/balloons.

Tube choice:
- Sengstaken-Blakemore.
- Minnesota.
- Linton-Nachlas (gastric varices).
Sengstaken-Blakemore Tube:

Insertion technique:
- Low threshold for airway protection.
- Local anesthetic +/- sedation or full general anesthetic.
- Left lateral/semi-prone position, insert mouthguard.
- Lubricated tube is passed, via mouth, to 50-60 cms.
- Aspirate gastric and esophageal ports to dryness.
- Inflate gastric balloon with air to 100 mls.
- If pain deflate immediately and reinsert. (If sedated/ventilated and cannot rely on patient ability to express symptoms of pain, measure gastric balloon pressure on inflation prior to insertion, if, following insertion pressure in gastric balloon >15 mmHg than readings when checked prior to insertion, deflate and reinsert).
- Inflate gastric balloon to 250-350 mls.
- Withdraw until resistance at 30-40 cms.
- Apply traction with 500 ml bag of fluid.
- Aspirate gastric and esophageal ports every 15 mins or apply suction.
- Tube position check: Chest X Ray

Continued bleeding:
- Check:
  - Adequate traction and correct tube position.
  - Octreotide infusion continued.
  - SBP 90-100 mmHg, pulse<100/min.
• Correct coagulopathy.
• Esophageal balloon inflation is rarely needed.
• If required inflate esophageal balloon to 30-40 mm Hg.
• Check esophageal balloon pressure hourly.
• Aspirate gastric and esophageal ports.
• Deflate oesophageal balloon every 6 hrs.
• Endoscopy/transfer for endoscopy.

Tube monitoring and patient turning:
• Pain: deflate and reposition immediately.
• Severe pain/asphyxiation: cut tube proximal to point of bifurcation of port exits and remove when deflated and no resistance.
• Check traction distance, 30-40 cms, at regular intervals is stable, if not then tube deflation/migration may have occurred, deflate, remove and reinsert.
• Turning the patient:
  • Provided traction is maintained by hand patients can be turned from, supine, right and left, lateral and semi-prone positions.
  • Suspension devices can be useful to maintain position (see below).

Patient transfer:
• Airway protected
• Bleeding controlled
• Traction applied
• Patient position:
  • Intubated: left lateral or supine.
  • Unprotected airway: left lateral/semiprone
• Duration of transfer with balloon inflated
  • Gastric traction up to 24 hours
  • Esophageal deflation after 6 hours

Recurrent bleeding:
• Apply traction and repeat endoscopy.

Tube removal:
• No further bleeding after 24 hours: take traction off gastric balloon.
• No further bleeding after 3-6 hours: remove tube.
• Repeat endoscopy.

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