

GASTRO-OESOPHAGEAL REFLUX (GOR)

RECOGNITION AND ASSESSMENT

Definition

- Passive transfer of gastric contents into the oesophagus owing to transient or chronic relaxation of the lower oesophageal sphincter

Symptoms

- Frequent vomiting after feeds in otherwise healthy baby
- Recurrent desaturations in ventilated babies (exclude BPD spells)
- Chronic lung disease of prematurity may be worsened by recurrent aspiration caused by GOR

Risk factors

- Immaturity of the lower oesophageal sphincter
- Chronic relaxation of the sphincter
- Increased abdominal pressure
- Gastric distension
- Hiatus hernia
- Oesophageal dysmotility
- Neuro-developmental abnormalities

Differential diagnosis

- Suspect cow's milk protein intolerance (CMPI) in babies who are formula bottle fed and have recurrent vomiting and irritability despite appropriate management of GOR

INVESTIGATIONS

- Litmus test (pH paper - on two occasions) for acid in oropharyngeal secretions (OPS) but not after stimulation for apnoea or bradycardia which can cause a GOR episode and not immediately after a feed
- 24 hr pH monitoring is of limited value in preterm babies. Perform in cases where repeated apnoea/bradycardia is resistant to other measures

MANAGEMENT

Position

- Head upwards – at an angle of 30°
- Nurse baby prone or in left lateral position

Feeding

- Frequent low volume feeds
- Avoid overfeeding
- Infant Gaviscon (half dual sachet)
- breastfed: give during or after a feed (add 5 mL sterile water/milk to make a paste, then add another 5-10 mL and give with a spoon)
- bottle fed: add to at least 115 mL of milk
- NG fed: make up with 5 mL water and give 1 mL per 25 ml of feed

Caution: Gaviscon contains sodium 0.92 mmol/half a dual sachet

- If symptoms persist, change to Instant Carobel (will thicken cold or with hand-warm milk). Add 2 scoops to 100 mL shake well and leave for 3-4 min to thicken. Shake feed again and give immediately. Take care that thickened liquid does not block fine bore nasogastric tube

Warning: do not give Gaviscon and Carobel together as both these agents will cause the milk to become too thick leading to unnecessary complications (mechanical) intestinal obstruction or NEC

Drugs

- If above measures fail, add domperidone 300 micrograms/kg 4-8 hrly

- If pain secondary to reflux oesophagitis causes irritability/refusal to feed, add ranitidine 2 mg/kg 8 hrly orally or 0.5 mg/kg IV 12 hrly <32 wks or 6 hrly \geq 32 wks (as infusion over 10-15 min)

Caution – ranitidine can increase incidence of NEC
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Other measures

- If symptoms persist, consider other measures in discussion with senior consultant e.g.
- omeprazole 0.7mg/kg/day
- erythromycin 4 mg/kg four times daily
- cow's milk protein-free formula (in artificially fed infants)
- some neonates with suspected CMPI, are also allergic to hydrolysate formula and will respond to an amino acid-based formula