Version 1.0 | # Childhood Gastro-Oesophageal Reflux Disease | 8/06/2012

Definition

GOR is the non-forceful regurgitation of milk and other gastric contents into the oesophagus. Normally a physiological phenomenon and asymptomatic, however can become pathological.

Epidemiology

- Common in infancy (2-10%)
- Peak: up to 25% @ 6mo, mainly from immaturity of lower oesophageal sphincter (LOS).

Risk factors for GORD

- Immaturity of LOS
- Prematurity
- CP or sev. neurodevelopmental problems
- Chronic relaxation of LOS
- Increased abdominal pressure
- Gastric distension
- Hiatus hernia
- Oesophageal dysmotility
- Congenital oesophageal anomalies
- Food intol (cow's milk, soy protein)

Presentation

- Recurrent regurgitation or vomiting
- Epigastric and abdominal pain (post-feed distress, behavioural problems)
- Failure to thrive
- Persistent cough
- Episodes of wheeze, choking or ALTE

Complications

- Oesophagitis (with haematemesis, anaemia or stricture formation)
- Respiratory problems (e.g. cough, apnoea, recurrent wheeze, and aspiration pneumonia)
- Behavioural problems and failure to thrive
- Sandifer syndrome - GOR + dystonic trunk/neck posture (torticollis/opisthotonus).

Differential diagnosis - Consider congenital hiatus hernia, gastroenteritis, pyloric stenosis, UTI.

Investigations – only if unwell (apart from urine)

- FBC, UEC
- 24hr pH study (duration $pH_{oesoph}<4$)
- Barium meal (for anatomic anomalies)
- Endoscopy
- CXR - if aspiration is suspected
- Urine culture to r/o UTI

Management - Refer to Paediatrician if mod-severe GOR or any complications.

General: Avoid provoking foods, reduce any excess weight in older children.

Mild GOR in well infant: Reassure, ↑freq & ↓vol of feeds, elevate or left lateral pos. post-feed. Prone position ↓GOR but is assoc with SIDS and thus is not recommended when sleeping.

Anti-Reflux Formula/Feed thickening (e.g. rice cereal, cornflour (1tsp/100ml H_2O), carob bean gum [Carobel]): Lastest Cochrane review (2004) supported use. First line if bottle-fed.

Drugs:

- Antacids for episodic relief e.g. **Gaviscon**, **Mylanta** – **SE:** Al toxicity (prolonged use)
- PPIs: e.g. **omeprazole** 0.7-1.5mg/kg od or 5mg od (<10kg), 10mg (10-20kg), 20mg (>20kg)
- H_2-receptor antagonists e.g. **ranitidine** 2-4mg/kg bd. Probably inferior to PPI.
- Prokinetic agents: **metoclopramide**, **erythromycin or domperidone** (>15kg) may ↑gastric emptying & LOS action but evidence equivocal & SE may>gain. **CI:** **Cisapride** as can ↑QTc.

Surgery: Nissen fundoplication if med Rx fails or recurrent Cx (patients often have neurodevelopmental problems). High morbidity & relapse rates. Can do laparoscopically now.

Prognosis

Most infantile GOR resolves by 12-18mo as sphincter matures, child becomes upright & ↑solids.