Paediatric GI Gems

April 16\textsuperscript{th} 2015
Paediatric GI Gems

• Most children will have some ‘GI’ or ‘abdominal’ symptom

• Most of these do not need referral

• Almost all in need of referral can be referred to a General Paediatrician initially
## Constipation/soiling

### Background
- A problem, not a disease
- Manageable in primary care
- Investigations rarely if ever needed
- Rectal therapies strongly discouraged
- Long-term (>6 months) stool softeners usually required
- Avoid blame/punishment
- Relapse common
- Adequate motivation & consistent approach essential
- Child/parent to take responsibility for their own management

### Red Flags—consider referral to local general paediatrics
- Delayed meconium passage >24h
- Failure to thrive
- Indolent constipation from birth
- Large (>5mm) fleshy perianal tags
- Deep perianal fissures
- Other stigmata of IBD

### Examination
- General physical exam
- Palpable stool masses
- Anal Inspection (not digital rectal exam)
  - Anal position/natal cleft normal
  - Soiling evident
  - Skin tags/tears/fissures/sphincter laxity
  - Inflammation as per anal Strep infection
- Neurology
  - Normal lower limb neurology

### Investigations
- Blood and radiology tests are not indicated

### Treatment
1. **Disimpaction**—stimulants or high dose PEG3350
   - Repeat in regular cycles initially, then PRN
2. **Maintain soft daily stools**—“toothpaste consistency”
3. **Regular sitting once trained**
   - Motivation + support are key
   - Long-term softeners, wean slowly
   - Titrate doses up/down to achieve desired stool consistency

### Softeners
- **PEG 3350**—titrate dose
- **Liquid Paraffin** (not <1yr or if aspiration risk)
- **Lactulose** (mainly if <1yr)

### Stimulants
- **Bisacodyl**—once daily x 3-5 days
- **Picosulphate**—daily for 3-5 days
- **Senna**—daily

### Extra Fibre
- Limited evidence, slightly better than placebo in children

### Extra Fluid
- No evidence of benefit in children

### Pre/Probiotics
- Not beneficial

### Background
- Manageable in primary care
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- Rectal therapies strongly discouraged
- Long-term (>>6 months) stool softeners usually required
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- Adequate motivation & consistent approach essential
- Child/parent to take responsibility for their own management
- **Adequate bowel clearout**
- **Inadequate bowel clearout**
- **Poor compliance**

### Extra Fibre
- Limited evidence, slightly better than placebo in children

### Extra Fluid
- No evidence of benefit in children

### Pre/Probiotics
- Not beneficial

### References
- NICE CG 99 203
- Paris Consensus
- Pediatr, 2011

### TAKE HOME MESSAGES
- Manageable in primary care
- Is a marathon and not a sprint
- Rarely requires investigation/referral
- Preferably single agent stimulant and softener
- Children may need ‘adult’ doses of softeners/stimulants
Non-Organic Recurrent Abdominal Pain

### Background
- 5-10% children central/periumbilical pain
- Maybe other non-organic features - nausea, distractibility with activities

### History
- Site/frequency of pain
- "Red Flag" Symptoms (see below)
- "Internalising personality" traits (see below)
- Missing School? (typical in RAP)
- Aggravating/relieving factors
- Associated nausea

### Literature Base

<table>
<thead>
<tr>
<th>Background</th>
<th>Evidence Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Organic Recurrent</td>
<td></td>
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<tr>
<td>Recurrent Abdominal Pain</td>
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</tbody>
</table>

### Red Flags
- Weight loss
- Recurrent fevers
- Dysphagia/Odynophagia
- Epigastric-only pain
- Chronic diarrhoea
- Blood in the stools
- Vomiting
- Palpable mass
- Perianal disease
- Declining centiles

### Red Flags
- Refer to General Paediatrics

### Examination
- Weight/height centiles
- Abdominal exam
- Anal inspection
- Clubbing/?? Crohn's
- Urinalysis

### Investigations
- Avoid investigation cascade
- Investigate only if red flag pointers to alternative diagnosis

### Differential diagnosis (organic causes are all rare especially without other signs & symptoms)
- Pancreatitis/coeliac disease/PUJ obstruction/renal calculi
- Peptic ulceration/IBD

### Management
- Explore home/extra-curricular and school issues in detail - not just bullying
- Avoid secondary gain by being off school
- Explain Non-organic conceptual framework
- Discuss relaxation techniques
- Analgesia rarely helpful
- Avoid opioids

### Internalisers
- As with other non-organic illnesses children typically have internalising traits (sensitive, worriers, conscientious, high-achieving, empathic)

### References
- Forum 2008; 25(4): 45-46
Paediatric coeliac disease

Symptomatic patients

- Persistent diarrhea & failure to thrive
- Persistent GI symptoms
- Short stature of delayed puberty
- Dental enamel defects
- Persistent anemia

History and physical exam
Initial evaluation
Consider differential diagnosis

TTG
IgA

CD unlikely
Evaluate further

No

TTG abnormal?

Yes

Consult Ped GI
Endoscopic duodenal biopsy

Histopathology of CD?

Yes

No

Gluten-free diet

Review pathology
Consider EMA, HLA, repeat biopsy

Management post diagnosis

Gluten-free diet
Nutritional education
Dietician

Periodic assessment of symptoms, diet and serology

Reinforce adherence

Serology Abnormal?

Symptoms present?

No

Yes

Evaluate for other causes of symptoms
Consider re-biopsy

Irish Educational Video link
http://www.wideo.co/view/4018431416342804919-suzies-story
Aerophagia

Table 1. Identification of a patient with aerophagia based on the Rome III Criteria for FGIDs [4]

<table>
<thead>
<tr>
<th>Aerophagia</th>
<th>Reassurance</th>
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<tbody>
<tr>
<td>Must include at least two of the following:</td>
<td>Habit reveral</td>
</tr>
<tr>
<td>- Air swallowing</td>
<td>Avoid fizzy drinks, chewing gum, drinking with straws etc</td>
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<tr>
<td>- Abdominal distension because of intraluminal air</td>
<td></td>
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<tr>
<td>- Repetitive belching and/or increased flatus</td>
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Table 2. Clinical evaluation of patients with aerophagia

<table>
<thead>
<tr>
<th>Suggestive history</th>
<th>bloating, belching, flatulence, distension, constipation, abdominal pain, no vomiting; history of trigger stressful events</th>
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<tbody>
<tr>
<td>Physical examination</td>
<td>regular growth curve, increased tympany over the abdomen, normal bowel sounds, no signs of ileus or other alarm signs</td>
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Paediatric rumination

Majority of patients have other symptoms – nausea, heartburn, abdominal discomfort, diarrhoea, weight-loss etc

May persist for hours post-prandially

Treatment mainstays:
- PPI (dental protection)
- Good dental hygiene, esp post rumination
- Habit reversal techniques:
  - abdominal breathing- place hand on chest and abdomen; only hand on abdomen may move during breathing
  - chewing gum
Potential Referrals

**Direct to Paediatric Gastroenterology**

*Tertiary GI conditions including:*
- Highly suspicious/likely IBD
- blood PR plus other ‘red-flag’ signs/symptoms – large vol/anaemia etc
- coeliac disease
- conjugated hyperbilirubinemia (non-infectious)
- abnormal liver enzymes (miscellaneous causes)
- newly suspected/identified clinical portal hypertension
- pancreatic problems (pancreatitis, pancreatic insufficiency)
- eosinophilic oesophagitis
- recurrent food impaction, severe dysphagia
- Haematemesis
- chronic diarrhoea (not toddler’s diarrhoea)
- familial/genetic GI conditions (incl Peutz Jegher’s Syndrome, FAP etc);
- refractory anaemia etc.

**Direct to General Paediatrics**

- Constipation and/or soiling not responding to guidelines
- Recurrent abdominal pain
- chronic nausea
- Potentially functional symptoms- rumination, flatus, malodour etc
- ?Toddler’s diarrhoea
- ?IBS
- GOR
- ‘failure to thrive’
- ?food allergies/food intolerance;
- Infants/children with behavioural issues – poor sleeping/feeding/crying habits
- Rumination; excessive belching/flatus/foul smelling breath/foul flatus;
- unconjugated hyperbilirubinaemia
- any uninvestigated ?disease - e.g. ?coeliac without tTG + IgA, ?FTT or ?malabsorption without centile chart documenting falling centiles; etc.