Case Presentation
Spier GI Fellows Weekend
February 2019

Dr David Epstein
First Presentation 2011

• 50 year-old male. Married. Director of a restaurant chain.

• Long history of intermittent gastrointestinal symptoms
  – Diarrhoea – 3 watery stools / day
  – Sensation of incomplete evacuation
  – Bloating
  – No warning symptoms

• Other symptoms
  – Feeling of a lump in the throat
  – Anxiety – panic attacks when flying
  – Insomnia
  – Fatigue
Question 1

• This sounds like

1. Neurogenic mucous colitis
2. Spastic colon
3. Irritable bowel syndrome
4. A functional gastrointestinal disorder
<table>
<thead>
<tr>
<th>Neurogenic mucous colitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spastic colon</td>
</tr>
<tr>
<td>Irritable bowel syndrome</td>
</tr>
<tr>
<td>A functional gastrointestinal disorder</td>
</tr>
</tbody>
</table>
Functional Gastrointestinal Disorder (IBS)

- IBS - minority seek healthcare (20% pop affected)
- Chronic disorder
- Heterogeneous
- Diagnosis is symptom based
- No diagnostic test
- No demonstrable pathology
- “Neuro-visceral dysharmony”
- “Selective attention to visceral stimuli”
Symptoms of IBS

- Onset at adolescence – early adulthood
- Gender: female > male
- Intermittent and longstanding (> 6 months)
- Symptoms
  A. Abdominal pain
  B. Bloating
  C. Constipation
  D. Diarrhoea
  E. Extra-intestinal symptoms

Once diagnosis of IBS established the chance of an alternative diagnosis being made < 5%.
Extra-intestinal symptoms of IBS & IBS Comorbidity

- Chronic fatigue
- Insomnia
- Eating disorders
- Fibromyalgia syndrome
- Headaches
- Globus
- Chronic backache
- Chronic pelvic pain
- Interstitial cystitis
- Depression, Anxiety, PTSD
- Sexual dysfunction
- Abuse: sexual, physical, emotional

Patient Explanations

“IBS never travels alone”

“IBS clusters with other conditions”

“Interstitial cystitis is IBS of the bladder”

“Anxiety amplifies IBS symptoms”

‘IBS symptoms often increases anxiety”
My approach 2011

• Sounds like diarrhoea-predominant IBS
• A number of IBS associated symptoms
• 50 years of age and no previous investigation

• I decide he needs investigation

• Routine blood tests (FBC, TSH, Liver profile, Ferritin, CRP)
• Coeliac screen: IgA anti-TTG = 0 U/ml

• Schedule a colonoscopy
Colonoscopy

Mild proctitis with loss of vascular pattern

Remainder of the colon normal

Terminal ileum normal

Biopsies from the proximal colon:
Normal

Rectum:
Focal active colitis with crypt abscess
No chronic inflammation
Slight crypt irregularity
No Paneth cell metaplasia
The histological findings diagnostic of UC on a rectal biopsy include
The histological findings diagnostic of UC on a rectal biopsy include

- Crypt Branching
- Crypt Abscess
- Paneth Cell Metaplasia
My diagnosis in this patient?

1. Ulcerative colitis

2. IBS

3. Ulcerative colitis and IBS

4. None of the above – he needs further investigation
My diagnosis in this patient?

- Ulcerative colitis
- IBS
- Ulcerative colitis and IBS
- None of the above – he needs further investigation
Relationship between IBS and UC

• Symptoms of mild ulcerative colitis can be confused with diarrhoea predominant IBS

• Ulcerative colitis in remission. IBS much more common than in controls (31% vs 7.5%)

Ishihara S, Kawashima K, Fukuba N et al Digestion 2019
Treatment

• 5-ASA topical and oral
• Low FODMAP diet
• Peppermint Oil
• Escitalopram (SSRI)
A low FODMAP diet MUST include?

1. Exclusion of lactose and wheat as these are FODMAP foods

2. A diet that excludes all fermentable carbohydrates

3. Is the same as a Banting diet (low carb / protein / high fat)

4. None of the above
<table>
<thead>
<tr>
<th>A low FODMAP diet MUST include?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusion of lactose and wheat</td>
</tr>
<tr>
<td>as these are FODMAP foods</td>
</tr>
<tr>
<td>A diet that excludes all</td>
</tr>
<tr>
<td>fermentable carbohydrates</td>
</tr>
<tr>
<td>Is the same as a Banting diet</td>
</tr>
<tr>
<td>(low carb / protein / high fat)</td>
</tr>
<tr>
<td>None of the above</td>
</tr>
</tbody>
</table>
Fermentable Oligosaccharides, Di-sacharrides, Mono-sacharrides and Polyols

- Small carbohydrates and fibre
- Poorly absorbed
- Osmotically active in the small intestine
- Rapidly fermented in the colon

Can explain all the symptoms of IBS in sensitive individuals

<table>
<thead>
<tr>
<th>Lactose</th>
<th>Excess Fructose</th>
<th>Fructans</th>
<th>Oligosaccharides</th>
<th>Polyols</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk</td>
<td>Apples</td>
<td>Onion</td>
<td>Legumes</td>
<td>Peach</td>
</tr>
<tr>
<td>Custard</td>
<td>Pears</td>
<td>Garlic</td>
<td>Pistachios</td>
<td>Pears</td>
</tr>
<tr>
<td>Cottage cheese</td>
<td>Watermelon</td>
<td>Wheat, Barley, Rye</td>
<td>Cashews</td>
<td>Nectarines</td>
</tr>
<tr>
<td>Ricotta cheese</td>
<td>Mango</td>
<td>Dried fruit</td>
<td></td>
<td>Apricots</td>
</tr>
<tr>
<td>Ice cream</td>
<td>Figs</td>
<td>Artichoke</td>
<td></td>
<td>Mushrooms</td>
</tr>
<tr>
<td>Yoghurt</td>
<td>Grapes</td>
<td>Asparagus</td>
<td></td>
<td>Cauliflower</td>
</tr>
</tbody>
</table>
Is there evidence that a low FODMAP diet is effective in IBS?

- Dietary studies in IBS difficult
- High placebo responses
- No objective measurement of symptoms
- Accurate control of diet intake almost impossible

- Nevertheless there is good evidence that up to 75% of patients will respond if implemented correctly
Dietary poorly absorbed, short-chain carbohydrates increase delivery of water and fermentable substrates to the proximal colon.

Barrett, Gearry, Muir et al Aliment Pharmacol Ther 2010

- 12 patients with ileostomies
- Healthy small intestine
- High FODMAP vs Low FODMAP diet
- 4 day cross over trial

- **Effluent collection**
  - weight increased by a mean of 22% (95% CI, 5-39)
  - water content by 20% (2-38%)
  - dry weight by 24% (4-43%)

  - Volunteers perceived effluent consistency was thicker (95% CI, 0.6-1.9) with the low FODMAP diet than with the high FODMAP diet (3.5-6.1; P = 0.006).
Low FODMAP diet

• 6 to 8 week exclusion
• Reintroduction of FODMAP groups one at a time
• Identify FODMAP triggers

• Complete FODMAP exclusion is unstainable
• FODMAP exclusion is the beginning not the end
• Aim is to re-introduce as many FODMAPs as possible
• Investment with long term benefits
Email a few weeks later

• 5-ASA + SSRI + low FODMAP programme

• Anxiety levels much improved

• GI symptoms definitely better
Returns 18 months later

• Diarrhoea getting bad again

• On low FODMAPs

• Anxiety well controlled on SSRI
I request a stool test

Clostridium difficile toxin
Negative

Calprotectin
120ug/g
50 year-old male with IBS-D and mild UC proctitis

- Paging through his folder looking at previous results
- Routine blood tests (FBC, TSH, Liver profile, Ferritin, CRP)
- Coeliac screen: Anti-TTG = 0
I plan to repeat his endoscopy

• But I should

  1. Check his coeliac genetics
  2. Request a P-ANCA
  3. Check his immunoglobulins
  4. Check his Chromogranin A
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I plan to repeat his endoscopy But I should?</strong></td>
<td></td>
</tr>
<tr>
<td>Check his coeliac genetics</td>
<td>A</td>
</tr>
<tr>
<td>Request a P-ANCA</td>
<td>B</td>
</tr>
<tr>
<td>Check his immunoglobulins</td>
<td>C</td>
</tr>
<tr>
<td>Check his Chromogranin A</td>
<td>D</td>
</tr>
</tbody>
</table>
I check immunoglobulins

- Ig A = < 0.07
- IgG = 11.6
- IgM = 0.6

- Fewer than 20% of coeliacs are diagnosed worldwide
- TTG is an IgA assay
- False negative serology due to selective IgA deficiency
- Up to 3% of coeliacs are IgA deficient

Original Coeliac Blood Test

Coeliac screen: IgA anti-TTG = 0 U/ml
Testing for Coeliac Disease: NICE 2015

• IgA anti-TTG and IgA as first line test

• If IgA Deficient (< 0.7g/l)
  – IgG EMA
  – IgG deamidated gliadin peptide (DGP)
  – IgG tTG
Gastroscopy – D2
Diagnosis Revised

• Coeliac disease
• Mild UC proctitis

• Diet changed from low FODMAP to strict gluten free

• Diarrhoea resolves completely
Thank You