Irritable Bowel Syndrome

GP Gastroenterology and Hepatology Workshop

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Saturday 11 November 2017

The extent of the problem

- Population based studies estimate:
  - Prevalence 10-20%
  - Incidence 1-2% per year

Am J Gastroenterol 2012 Jul; 107(7):991

Manifestations of IBS

- Altered bowel habits 3-6 months
- Abdominal pain – relieved by defecation
- Abdominal bloating/distention

Additional symptoms

- Mucorrhoea of non inflammatory aetiology
- Upper GI symptoms
  - Dyspepsia/heartburn (functional dyspepsia)
  - Nausea/vomiting
- Sexual dysfunction
- Urinary frequency and urgency
- Symptoms changing with menstrual cycle
- Fibromyalgia (chronic headaches/fatigue)
- Stressor-related symptoms

Organic pathology

Is suggested by:

- Older onset
- Acute symptoms (definition)
- Progressive symptoms
- Nocturnal symptoms
- “Red flag symptoms” ie weight loss, anorexia, fever, bleeding.
- Painless diarrhoea
- Steatorrhoea

Diagnosis

Rome IV Criteria

- Recurrent abdominal pain on average >1 day/week during the previous 3 months – associated with 2 or more of
  - Related to defecation
  - Associated with a change in stool frequency
  - Associated with a change in stool form of appearance
- NB "discomfort" is no longer a requirement

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Supporting symptoms

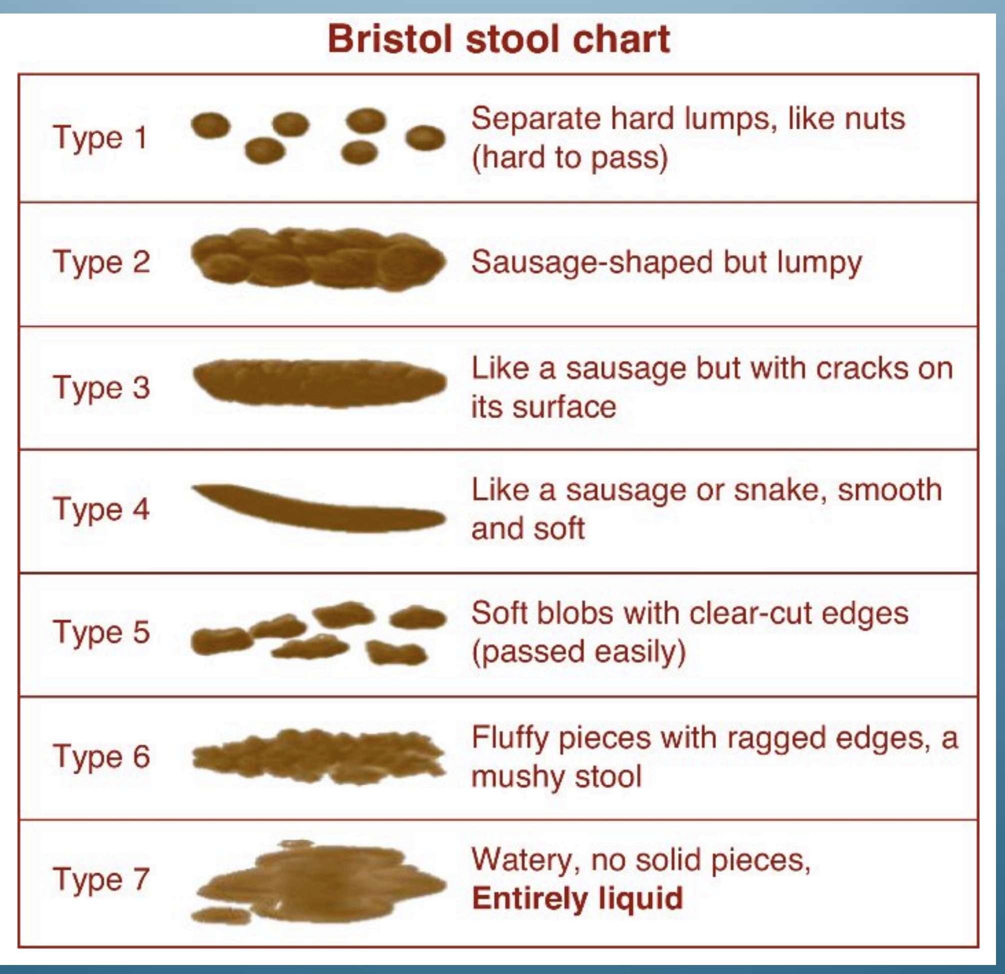
- Altered stool frequency
- Altered stool form
- Altered stool passage (straining and/or urgency)
- Mucorrhoea
- Abdominal bloating or subjective distention

IBS patterns

- IBS-D (Diarrhoea predominant)
- IBS-C (Constipation predominant)
- IBS-M (mixed diarrhoea and constipation)
- IBS- U (unclassified)

- BUT – within the 1st year 75% will switch subtypes, and 29% switch between constipation and diarrhoea

Talking about poo



Who to investigate?

- Comprehensive history and examination –
- AGA DO NOT recommend lab or diagnostic imaging in patients <50 with typical IBS symptoms and without the following "alarm features":
  - Weight loss
  - IDA
  - FH of certain organic GI diseases (eg IBD, Coeliac, CRC)

Standard investigations

- FBC, ELFTs (Ca^{2+}) TSH, (CRP)
- haematinics [transferrin saturation, ferritin – soluble transferrin receptor if unsure]
- tTG Ab, IgA level (HLA DQ2 and 8)
- Stool:
  - MC+S (Giardia)
  - Fecal elastase
  - Fecal calprotectin if inflammation/IBD suspected
  - Fecal α1 antitrypsin (fecal protein loss)
  - +/-CDT
  - NB FOBT ONLY valid on *asymptomatic* individuals >50

Management

- Dietary measures
  - Fibre (Cochrane review > no benefit)
    - Soluble fibre eg pectins, guar, psyllium produce viscous solutions which delay small bowel absorption and increase colonic transit time
    - Insoluble fibre eg oat or wheat bran is neither digested nor absorbed so increases stool volume > decreases colonic transit time
    - Polycarbophil compounds may cause less flatulence than psyllium compounds
  - Water intake
  - Caffeine
  - Lactose (sufficient Ca^{2+} intake)
  - FODMAPS (fermentable oligosaccharides, disaccharides, monosaccharides and polyols) – MONASH
  - Guten – non coeliac wheat sensitivity
  - Probiotics – not sure which: *Bifidobacterium*?

Psychological interventions

- Psychological interventions, cognitive-behavioural therapy, dynamic psychotherapy and hypnotherapy are more effective than placebo (but possible not long lived)
- Relaxation therapy is no more effective than usual care

Pharmacotherapy

- Antidepressants work (TCAs, SSRIs) – strong evidence (Cochrane review)
- Fibre and psyllium - moderate evidence
- Linaclotide and lubiprostone (enhance Cl^- rich intestinal fluid secretions) – superior to placebo for IBS-C (not TGA approved)
- Prucalopride (5HT-4 agonist) TGA not PBS:
  - "Treatment of chronic functional constipation in adults without adequate relief for ≥2 laxatives from different classes at highest tolerated recommended doses for ≥6 months"
- Alosetron (5-HT3 antagonist) – indicated for women only with severe IBS-D symptoms – initially removed but now prescribing restricted to physicians enrolled in the prescribing program (USA). Not TGA approved
- Eluxadoline – μopioid receptor agonist. For IBS-D. Not TGA approved
- Rifaximin better than placebo (not TGA approved)

Anticholinergics

- Dicyclomine hydrochloride – blocks ACh at parasympathetic sites (muscarinic receptors). Useful for IBS-D
- Hyoscyamine sulfate - similar

Antidiarrhoeals

- Diphenoxylate hydrochloride 2.5mg with atropine sulfate 0.025mg – atropine added to discourage abuse.
- Loperamide – available over the counter

Case 1

- Miss CP
- 23 year old. Just started paramedic course
- Mucusy stool, frequency, fecal incontinence with urgency. Sensation of incomplete emptying. Abdominal cramps - ? IBD

Initial investigation

- Bloods
  - FBC, ELFTs, TFTs NAD
  - tTG Ab neg, IgA 0.5 g/L (N 0.85-4.99 g/L)
  - HLA DQ2 positive – significance?
- Stool
  - Microscopy not performed
  - C+S – Blastocystis *spp* detected – significance?

Coeliac Disease

- tTG Ab is an IgA mediated Ab
- IgA deficiency is quite common(~0.2% prevalence)
- =Immune response directed at the protein gliadin in wheat
- Prevalence ~1.5% in Australia
- Associated with HLA DQ2 and 8
- HLA DQ2 and 8 present is ~50% of the population

Blastocystis *spp*

- ? Pathogenic
- Considerable debate
  - Most evidence to support pathogenicity are case reports and uncontrolled or retrospective studies
- Heterogeneity of Blastocystis spp strains – subtype 1 (and ?3) more likely to be associated with symtoms – although subtype 3 not always associated with symptoms
- Widespread use PCR has increased “positives”
- Prolonged, irregular shedding of the organism can occur
- Likely part of the normal microbiome

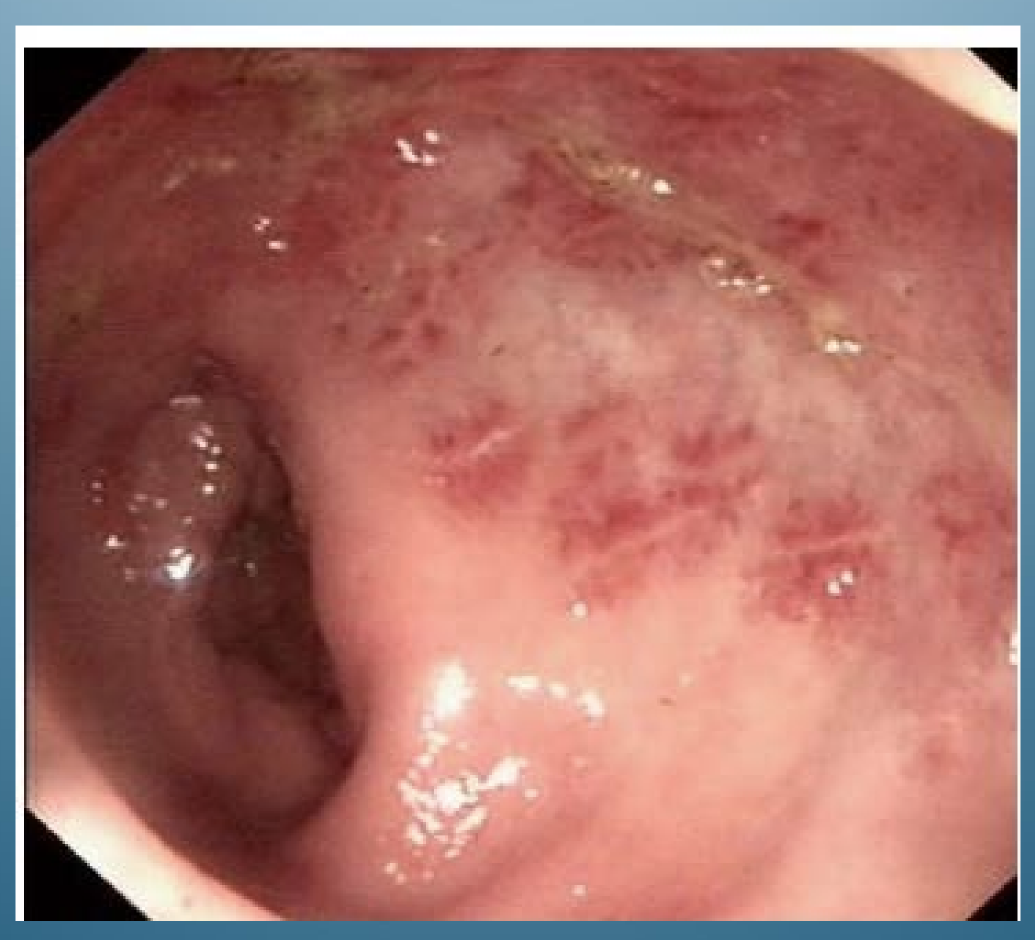
Miss CP

- Examination:
  - BMI 35 kg/m2
  - Slight rash on buttocks
  - Anal excoriation and irritation
- Additional tests from GE clinic
  - Fecal calprotectin 95 µg/g (<50 µg/g)
  - Fecal elastase 450 µg/g (>500 µg/g)
  - Stool – microscopy: bland, no pathogens on PCR/culture

Further tests

- Colonoscopy?
- Upper GI endoscopy?
  - Endoscopy and biopsies – normal
  - Colonoscopy – 5cm superficial ulcer in distal rectum: biopsies no chronic inflammation

SRUS



Further investigations

- Pelvic floor evaluation with endoanal ultrasound, pudendal nerve studies and anorectal manometry
- Defecating proctogram

Findings

- Abusive childhood
- Stress triggers symptoms
- Straining at stool commenced in High School
- Full thickness rectal mucosal prolapse
- Normal colonic transit time
- Gave up paramedic training

Management

- Pelvic floor physiotherapy and defecatory retraining
- CBT – stress triggers aberrant behaviour
- Maintain soft stool
- REASSURE

Thank you