CASE FIVE

Short case number: 3_21_5
Category: Gastrointestinal and Hepatobiliary systems
Discipline: Medicine
Setting: General Practice_rural
Topic: Irritable bowel syndrome.

Case

Fay Dunstin, a 35 year old, has just moved into the area with her husband David and their 2 children. David has just been transferred with the police force. The children are settling in well and Fay has just found work at the local pre-school.
Fay becomes teary as she recounts her history, she feels that her stomach is constantly bloated and full. She has pain most days and often has to 'run to the toilet' with loose stools. She describes herself as a 'bit of a worrier' and is concerned that she may have a serious problem.

Questions

1. What are the key features of your assessment of Fay [history and examination] that would assist in determining whether Fay has a serious problem?
2. What are the key features of history would support a diagnosis of irritable bowel syndrome?
3. In undertaking your systems review, what systems would you specifically include in exploring the non-gastrointestinal features of irritable bowel syndrome?
4. In a flow chart summarise, the features of history and examination that would prompt you to investigate further, what investigations would you undertake and why?
5. Fay meets the diagnostic criteria for irritable bowel syndrome; develop a management plan that addresses the biological as well as the psychosocial aspects of this problem.
6. In your assessment of Fay you discover that she becomes overwhelmed and anxious fairly easily and you think that she would benefit from seeing a clinical psychologist – Are there issues in accessing this care in a rural setting? What impact would this have on general practitioners in rural areas?

Suggested reading:

- Kumar P, Clark ML, editors. Kumar & Clark's Clinical Medicine. 8th edition. Edinburgh: Saunders Elsevier; 2012.

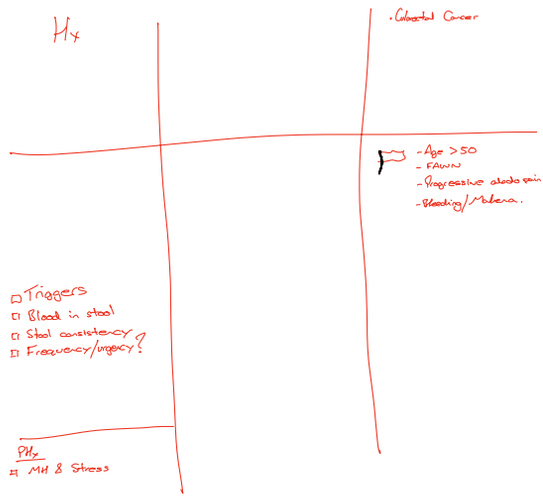
- Burgell R, Nandurkar S. How to treat: Irritable bowel syndrome. 3 Oct. 2008

  http://search.ebscohost.com.ipacez.nd.edu.au/login.aspx?direct=true&db=anh&AN=34787095&site=ehost-live&scope=site

ANSWERS

1. Inconsistent symptoms are an alert to the possibility of organic pathology. Features not consistent with irritable bowel syndrome include the following:
   - onset in middle age or older
   - acute symptoms
   - progressive symptoms
   - nocturnal symptoms
   - anorexia or weight loss
   - fever
   - rectal bleeding
   - painless diarrhoea
   - steatorrhoea
   - gluten intolerance

   Examination:
   Pallor, jaundice, bruising, pigmentation, striae, spider naevi
   Signs of chronic liver disease
   Ascites
   Hepatomegaly and/or splenomegaly
   Abdominal mass
   Guarding/rigidity/rebound tenderness



2. A concensus panel created and recently updated the Rome criteria to provide a standardized diagnosis for research and clinical practice. The Rome III criteria (2006) for the diagnosis of irritable bowel syndrome (IBS) require that patients must have recurrent abdominal pain or discomfort at least 3 days per month for the previous 3 months that is associated with 2 or more of the following:
   - relieved by defaecation
   - onset associated with a change in stool frequency
   - onset associated with a change in stool form or appearance

   The following symptoms cumulatively support the diagnosis of IBS:
   - abnormal stool frequency ('abnormal' may be defined as >3/day or <3/week)
   - abnormal stool form (lumpy/hard or loose/watery stool)
   - abnormal stool passage(straining, urgency, or feeling of incomplete evacuation)
   - passage of mucus (mucorrhoea)
   - bloating or feeling of abdominal distension

3. Gynaecological symptoms
   - painful periods (dysmenorrhoea)
   - pain associated with sexual intercourse (dyspareunia)
   - premenstrual tension

   Urinary symptoms
   - frequency
   - urgency
   - passing urine at night (nocturia)
   - a sensation of incomplete emptying of the bladder

   Other symptoms
   - back pain
   - headaches
   - bad breath, unpleasant taste in the mouth
   - poor sleep pattern
   - fatigue

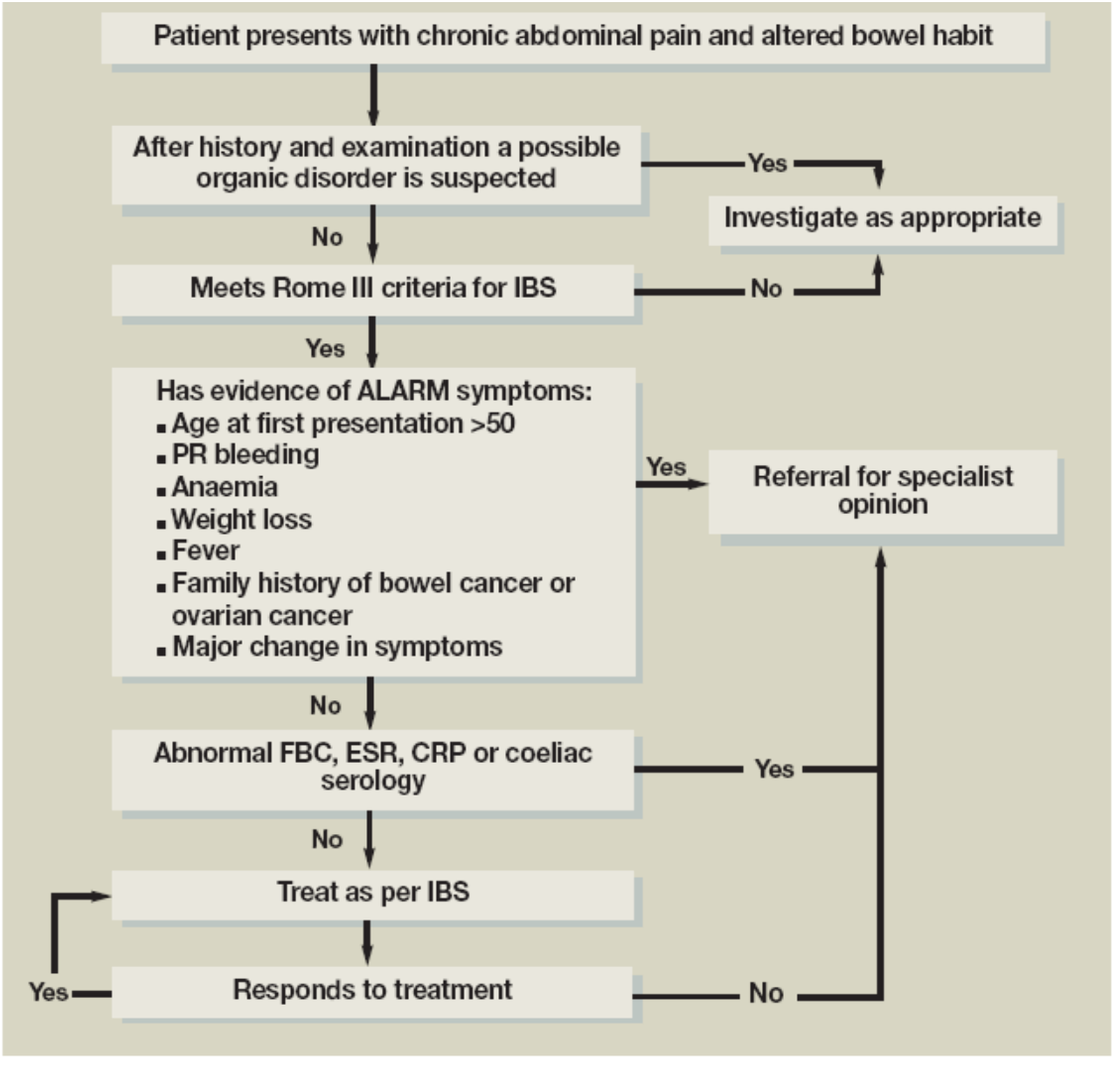
IBS - Constipation.

IBS - Diarrhoea

IBS - Mixed

Note: while the Rome III criteria specify a history of 'at least 3 months', most patients seen in clinical practice have had symptoms for some years. Also, while a 'change in stool frequency' or 'stool form or appearance' is required, this is so non-specific as to be of little help to the diagnostician. Certain patterns of symptoms are helpful. One is exacerbation of symptoms by foods that others can eat with relative impunity; thus certain fruits and nuts that cause no GI disturbance in most people unless taken in large quantities, will cause marked symptoms in IBS patients even with small intakes. Also, a large minority of IBS patients specify alternating constipation and diarrhoea as a key feature of their illness. When diarrhoea is present it is mainly in the morning and does not wake them at night.

4.



In patients who meet the Rome criteria for IBS and who do not have any alarm symptoms the pre-test probability of organic disorder such as colorectal cancer, inflammatory bowel disease or infectious diarrhoea is <1%. However coeliac disease is about 10 times more common in patients who fulfill the Rome criteria, and therefore should be actively excluded.

If referral to a Specialist is necessary as indicated by the above algorithm then the patient will undergo the appropriate examinations which may involve a gastroscopy as well as a colonoscopy.

how fodmap diet
– Mainly remove oligosaccharides from wheat (bread, beer etc.)

5. Successful management relies on a strong patient-practitioner relationship. At the first visit validate their symptoms as being real and try to determine the type and severity of their symptoms as well as the impact on their quality of life. Reassure the patient that the absence of an organic pathology indicates a normal life expectancy. Emphasize the expected chronicity of symptoms with episodic exacerbations. Teach the patient to acknowledge stressors and to use avoidance techniques.
   Current strategies for treatment of IBS are based on the biopsychosocial conceptualization of IBS with targeting of central and end-organ therapies. End-organ and central approaches to treatment should not be mutually exclusive and can be used in sequence and in combination.

   END ORGAN TREATMENT

   DIET
   Provide practical dietary advice to avoid overly restrictive diets which may result in micronutrient deficiencies. Encourage avoidance of caffeinated drinks, alcohol, sorbitol-containing foods or gums and to drink plenty of water. A food diary can be an effective way of identifying food triggers. It may be advisable to include a dietitian early in the management. Fibre advice is more complicated. While soluble fibre (psyllium, ispaghula, oats) may have a modest effect on global IBS symptoms, insoluble fibre (bran, corn) or resistant starch (breads, potatoes, and cereals) may worsen symptoms.
   A recent Cochrane meta-analysis found that there was no significant benefit for bulking agents in the management of IBS.
   PROBIOTICS
   Studies suggest that probiotics may cause less distension and flatulence and may possibly result in overall symptom improvement compared to placebo. The benefit may also depend on the live dose administered as well as the probiotic species used.
   PHARMACOLOGICAL
   A good approach is to ask the patient to identify a key symptom that they would like to focus on improving e.g.
   - diarrhoea treat with loperamide
   - constipation treat with osmotic (rather than stimulant) laxatives
   (may be necessary to prescribe both of the above alternatively as up to 1/3 of patients may change classification over a year)
   - abdominal pain treat with mebeverine, peppermint oil. Recent Cochrane meta-analysis has shown that antispasmodic medications are efficacious in IBS with improvement in abdominal pain and global symptom score.

   CENTRAL TREATMENT

   PHARMACOLOGICAL
   Antidepressants - limited evidence for their effectiveness. Rationale for their use is two-fold. i) may alleviate any confounding depressive or anxiety symptoms ii) used for their analgesic and anti-cholinergic effects on the gut Cochrane review found no significant benefits from antidepressants however there has been a recent study indicating that amitriptylline may be of benefit in an adolescent population with IBS by reducing the incidence of loose stool.
   Tricyclic antidepressants are more beneficial in IBS with diarrhoea whereas SSRIs are preferable in IBS with constipation.

Antibiotics have been tried on the basis of a meta-analysis of five trials in which there was statistically significant reduction of symptoms compared to placebo. However, the studies were short (up to 10 weeks) and the improvements were small. In the two largest studies, the follow-up incidence of symptoms was 41% in the placebo group and 32% in the antibiotic group. IBS is a common chronic illness. Antibiotic resistance is already a major challenge to society. Therefore it is wise to consider antibiotics only in those patients with severe symptoms who have consistently failed to respond to other therapies such as dietary manipulation, reassurance, cognitive behaviour therapy, antispasmodics and probiotics.

PSYCHOLOGICAL
Current guidelines recommend that, if after 12 months of pharmacotherapy the patient has failed to respond, they should be referred for psychological interventions. Treatment options include cognitive behaviour therapy (CBT) and hypnotherapy. The IBS symptoms most responsive to psychotherapy are abdominal pain and diarrhoea, although the therapeutic effect of CBT appears to wave after 6-12 months.
Factors associated with poor response to CBT include: male gender, belief that IBS would result in serious consequences, belief that IBS is due to an external aetiology, the presence of a formal psychiatric disorder.
A short course of small-group relaxation training results in improvement in quality of life as well as a decrease in the need for medical treatment.
There is no benefit for aloe vera treatment or acupuncture in the management of IBS.

Evidence-based practice

Intervention	Level of evidence
Antispasmodic medications are efficacious	Level I
Antidiarrhoeal medications are efficacious	Level I
Bulking agents are *not* helpful	Level I
Antidepressants may be beneficial	Level II
Probiotics may be beneficial	Level II
Cognitive behavioural therapy may be beneficial	Level II
Hypnotherapy may be beneficial	Level III
Aloe vera is *not* helpful	Level II

6. The main issues in regard to accessing a clinical psychologist in a rural setting are availability and cost. The former would be dependent on the size and remoteness of the location and this may require travel or possibly phone consultations on some occasions. With cost, if the clinical psychologist consults patients through a mental health care plan, then it becomes a far more manageable situation as the patient is entitled to 12 sessions (review after first 6) with the possibility of further sessions in certain circumstances.
   If there is no available clinical psychologist then the rural GP may be able to advise and or supply appropriate information and literature on relaxation etc. GPs with the appropriate interest and advanced training in mental health would be capable of treating the patient with CBT etc. A rural GP with no allied health support or the appropriate skills would need to constantly assess and maximize pharmacological therapy.

References.

- Kumar P, Clarke M. Clinical Medicine, 6th Ed. Elsevier 2005. Gastrointestinal disease, Chap. 6 Pp 338 – 340.
- Talley N, O'Connor S. Clinical examination, 5th Ed. 2006. The gastrointestinal system. Chap. 5
- Burgell R, Nandurkar S. How to treat: Irritable bowel syndrome. 3 Oct. 2008 http://search.ebscohost.com.ipacez.nd.edu.au/login.aspx?direct=true&db=anh&AN=34787095&site=ehost-live&scope=site
- Lehrer J. Lichenstein G, Irritable Bowel Syndrome eMedicine from WebMD http://emedicine.medscape.com/article/180389-overview