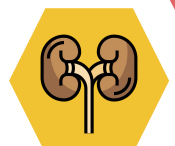
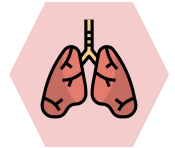
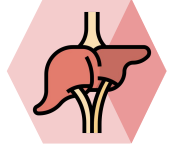


Abdominal pain + IBS



Objectives :

- Causes of Abdominal pain
- Functional dyspepsia
- Approach to management of dyspepsia
- Management of H pylori
- Irritable bowel syndrome

Done by :

Team leader: Rahaf AlShammari

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Munira AlMasaad

Revised by :

Aseel Badukhon

Resources :

Dr. Nahla Azzam Slides & notes

Acute Abdominal pain

Surgical

- Appendicitis
- Cholecystitis
- Bowel obstruction
- Acute mesenteric ischemia
- Perforation
- Trauma
- Peritonitis



Medical

- Cholangitis (inflammation of bile duct)
- Pancreatitis
- Choledocholithiasis (stone in the bile duct)
- Diverticulitis
- PUD Peptic Ulcer Disease
- Gastroenteritis
- Non-abdominal causes that can cause abdominal pain as MI in diabetic and HTN patients
- **FUNCTIONAL (chronic)**

Functional cause (more of chronic)



- Acute pain is more serious than chronic pain. why? Because chronic pain is less likely to be an inflammation or cancer.
- Most abdominal pain that requires surgery is acute, less likely chronic abdominal pain needs surgery e.g. bowel ischemia "bowel angina"

Epidemiological data about dyspepsia

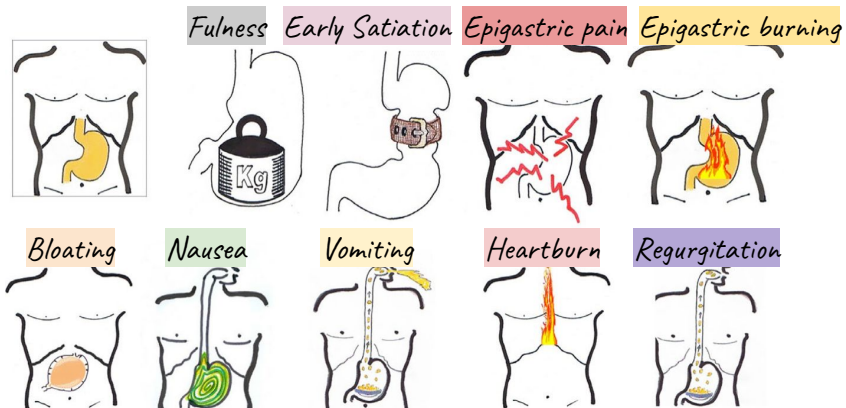
Table 2. Leading Physician Diagnoses for Gastrointestinal Disorders in Outpatient Clinic Visits in the United States, 2009

Rank	Diagnosis	Estimated visits	ICD-9 Codes
1	GERD*	8,863,568	530.11, 530.81
2	Abdominal pain	7,170,332	389.04, 789.00, 789.06, 789.07, 789.09
3	Gastroenteritis and dyspepsia**	4,007,198	008.8, 535.50, 536.8
4	Constipation	3,980,438	564.00
5	Abdominal wall hernia	3,559,932	550.90, 553.10, 553.20
6	Diverticular disease	2,682,168	562.10, 562.11
7	Diarrhea	2,402,350	787.91
8	Inflammatory bowel disease	1,893,799	555.9, 556.9
9	Colorectal neoplasm	1,744,089	153.9, 154.0, 154.1, 211.3
10	Nausea and vomiting	1,678,515	787.02, 787.03
11	Rectal bleeding	1,667,653	569.3, 578.1
12	Irritable colon	1,550,072	564.1
13	Hepatitis C infection	1,230,420	070.54, 070.70
14	Hemorrhoids	1,071,430	455.0, 455.4, 455.6, 455.8
15	Dysphagia	1,020,743	787.20
16	Appendicitis	663,930	541.0
17	Cirrhosis	635,463	571.5
18	Barrett's esophagus	440,605	530.85
19	Hepatitis, unspecified	379,062	573.3
20	Gallstone disease	303,606	547.10

- Dyspepsia: is a collection of symptoms including nausea, bloating and epigastric pain.
- Functional Dyspepsia: we mean when there is no pathology (no problem in serology, no problem in radiology) but it is not functioning well.
- Estimated prevalence of dyspepsia is between 20-40%
- Most affected people do not seek medical care
- 25 and 40% of individuals with dyspepsia will consult a PCPs

Functional dyspepsia

Pictograms



Definition of Functional Dyspepsia

- **Functional dyspepsia: one or more of bothersome:**

Postprandial fullness, or

Early satiety, or

Epigastric pain, or

Epigastric burning

- **No evidence of organic disease that is likely to explain the symptoms;**
- Overlap with GERD and IBS is common and does not exclude the diagnosis.
- GERD may be accompanied by some dyspeptic symptoms. Presence of typical reflux symptoms should lead to a provisional diagnosis of GERD

Definition: (Rome III committee)



There is a new classification including two distinct diagnostic categories "for dyspepsia":

- Postprandial distress syndrome (PDS) (feeling nausea, bloating or early satiety after a meal)
- Epigastric pain syndrome (EPS) which indicate meal-related and unrelated symptoms (epigastric pain either they have eaten or not)

Etiology:

Diagnosis
Functional dyspepsia (up to 60 percent)
Dyspepsia caused by structural or biochemical disease
Peptic ulcer disease
Gastroesophageal reflux disease (GERD)
Biliary pain
Chronic abdominal wall pain
Gastric or esophageal cancer
Gastroparesis
Pancreatitis
Carbohydrate malabsorption
Medications (including potassium supplements, digitalis, iron, theophylline, oral antibiotics [especially ampicillin and erythromycin], NSAIDs, corticosteroids, niacin, gemfibrozil, narcotics, colchicine, quinidine, estrogens, levodopa)
Infiltrative diseases of the stomach (eg, Crohn's disease sarcoidosis)
Metabolic disturbances (hypercalcemia, hyperkalemia)
Hepatoma
Ischemic bowel disease
Systemic disorders (diabetes mellitus, thyroid and parathyroid disorders, connective tissue disease)
Intestinal parasites (Giardia, Strongyloides)
Abdominal cancer, especially pancreatic cancer

- Most common cause of epigastric pain is functional dyspepsia (60%).
- Abdominal wall pain is worsened by movement and may cause guarding.

Functional dyspepsia

Clinical approach:

History	Physical examination
<p>First step is to rule out organic causes of dyspepsia and that's done by history.</p> <ul style="list-style-type: none"> - Ulcer-like or acid dyspepsia (eg, burning, epigastric hunger pain with food, antacid, and antisecretory agent relief). - Dysmotility-like dyspepsia (with predominant nausea, bloating, and anorexia). - Unspecified dyspepsia. <p>Note that: Peptic ulcer pain is worsened by food (because food stimulates acid secretion) while duodenal ulcer pain is relieved by food</p>	<ul style="list-style-type: none"> - Usually normal - Presence of palpable mass needs further action



▶ Alarm symptoms :

Unintended weight loss	Persistent vomiting	Progressive dysphagia	Odynophagia	unexplained anemia or iron deficiency
Hematemesis or nocturnal pain and bleeding	Palpable abdominal mass or lymphadenopathy	Family history of upper gastrointestinal cancer	Previous gastric surgery	Jaundice / Lymphadenopathy / mass

NPV=99%

Negative Predictive Value of 99% means if all of the above is negative, then the chance that this patient has "functional dyspepsia" is 99%

▶ Routine laboratory tests: done after history and Physical examination.



Routine blood counts and blood chemistry

To rule out any extra-intestinal cause of abdominal pain; diabetes and hyperthyroidism .. etc"

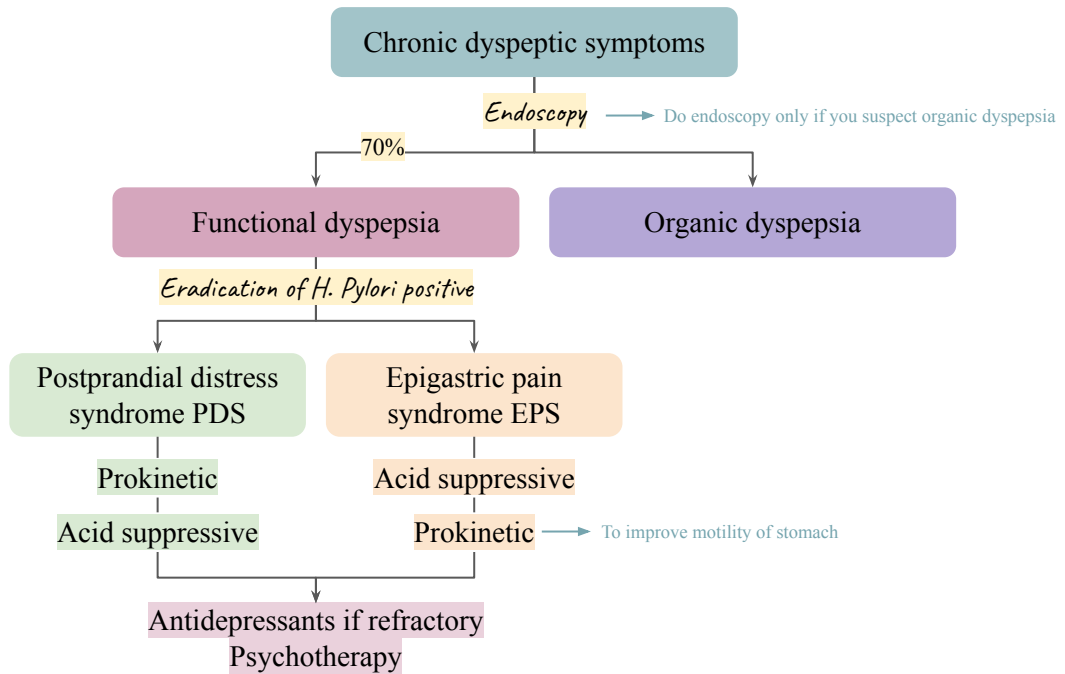


Invasive procedure Endoscopy

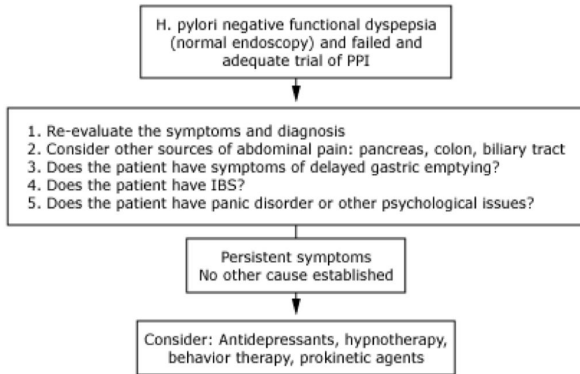
It is only done when there is an alarming symptom or other **indications**: organic causes like PUD or Esophagitis or even cancer"

- **Gold standard test to exclude gastroduodenal ulcers, reflux esophagitis, and upper gastrointestinal cancers.**
- Beneficial because up to **40%** of patients have an organic cause of dyspepsia.
- It also provides reassurance to patients.
- Disadvantage:
 - Expensive
 - Invasive
 - Not cost-effective in young patients without alarm symptoms
 - Up to **50%** are normal

► Functional dyspepsia management algorithm:

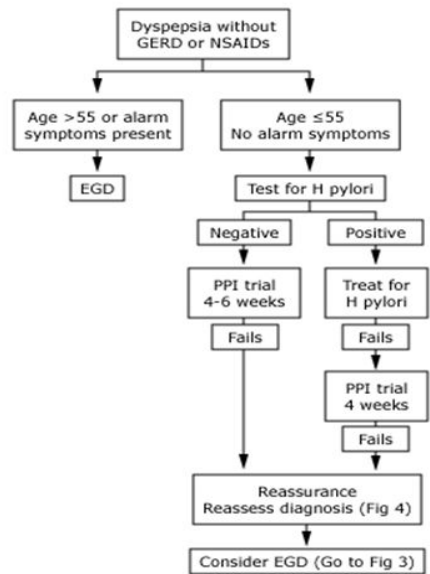


► Management of functional dyspepsia



If it is functional dyspepsia and H.pylori was negative → give high-dose PPI

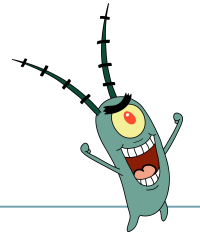
► Management of dyspepsia based on age and alarm features:



Helicobacter pylori

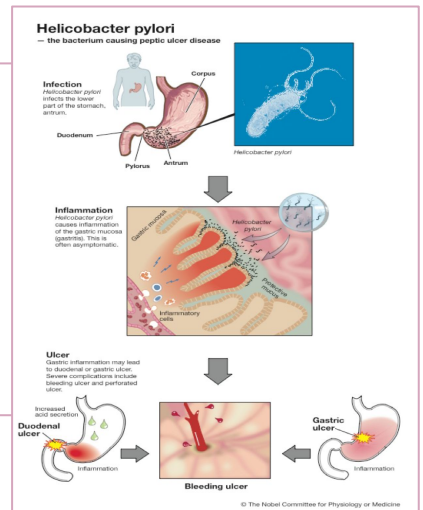
► Gram negative organism with following characteristics

- ❑ Slow growing
- ❑ Microaerophilic
- ❑ Highly motile
- ❑ Spiral
- ❑ Urease producing



► Transmission of H. Pylori :

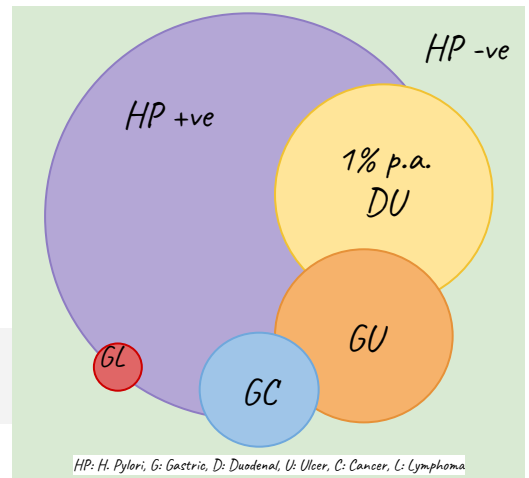
- Transmission occurs predominantly in children and socioeconomic status of the family is the main risk factor as reflected by the level of sanitation and household hygiene. Route of transmission is from person to-person through:
 - Fecal-oral route
 - Gastro-oral route
 - Oral-oral route
- One of the commonest human infection



► H. Pylori as a cause of PUD:

Duodenal ulcer (DU) → 95%
Gastric ulcer (GU) → 85%

The strongest evidence for the pathogenic role of *H. pylori* in peptic ulcer disease is the marked decrease in the recurrence rate of ulcers following the eradication of infection.

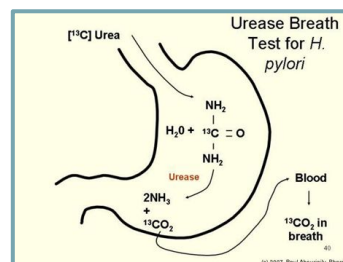


H.pylori can cause both GI manifestations and non GI manifestations:
1. GI Manifestations such as: Gastritis, lymphoma or cancer
2. Non GI such as: Eczema, urticaria, thrombocytopenia."

► Diagnosis of H. Pylori :

- **Non endoscopic methods**
 - Serum antigen
 - **UBT** Urea Breath Test
 - Stool antigen
- **Endoscopic**
 - Histology
 - Rapid urease test
 - Culture
 - PCR

Good to measure the effect of treatment



Mechanism of detecting HP in breath test: urease in HP breaks the bond between urea and CO₂ thus radiolabeled CO₂ is absorbed by stomach then goes through blood stream into lungs (exhaled).

- Problem of serology assay is that if +ve we don't know is the patient treated or not (may be present after treatment)
- **HP +ve patients must be treated even if asymptomatic**

► Indications for *H. Pylori* eradication:

- All patients with proven ulcers who are *H. pylori*-positive should be offered eradication as primary therapy.
- Other indications for *H. pylori* eradication are shown in **Box 22.42**.
- Eradication of the infection has proven benefits in several extragastric disorders, including unexplained B12 deficiency and iron deficiency anaemia, once sources of gastrointestinal bleeding have been looked for and excluded. Platelet counts improve and may normalise after eradication therapy in patients with idiopathic thrombocytopenic purpura; the mechanism for this is unclear.

22.42 Indications for <i>H. pylori</i> eradication	
Definite	<ul style="list-style-type: none"> • Peptic ulcer • Extranodal marginal-zone lymphomas of MALT type • Family history of gastric cancer • Previous resection for gastric cancer • <i>H. pylori</i>-positive dyspepsia • Long-term NSAID or low-dose aspirin users • Chronic (> 1 yr) PPI users • Extragastric disorders: <ul style="list-style-type: none"> • Unexplained vitamin B₁₂ deficiency* • Idiopathic thrombocytopenic purpura* • Iron deficiency anaemia* (see text)
Not indicated	<ul style="list-style-type: none"> • Gastro-oesophageal reflux disease • Asymptomatic people without gastric cancer risk factors
*If <i>H. pylori</i> -positive on testing.	

European *Helicobacter Pylori* study group guidelines

- **Triple therapy** with omeprazole (20 mg twice daily), amoxicillin (1 g twice daily), and clarithromycin (500 mg twice daily) for 7 to 14 days.
- A longer duration of treatment (14 versus 7 days) may be more effective in curing infection but this remains controversial.

Regimen	Comment
(Triple therapy) PPI, amoxicillin 1 gm, clarithromycin 500 mg all twice daily for 7-14 days	1st line treatment regimen of choice (can substitute metronidazole 500 mg twice daily for amoxicillin but only in penicillin allergic patients) <small>metronidazole has bad taste</small>
(Quadruple therapy) Bismuth 525 mg, metronidazole 500 mg, tetracycline 500 mg all four times daily with PPI twice daily for 7-14 days	Can be used as 1st line treatment (7-14 days) but generally reserved for retreatment (14 days) <small>Quadruple therapy can be used when there is resistance to clarithromycin</small>
PPI, amoxicillin 1 gm, metronidazole 500 mg all twice daily for 14 days	1st line treatment in macrolide allergic patients and retreatment if failed 1st line treatment of choice

- If all medications didn't work then do culture

- If you thought someone may have resistance to clarithromycin (±penicillin allergy) then you can go **directly to quadruple therapy**

Treatment Regimen	Duration (days)	Eradication Rate (%)
Omeprazole 20 mg BID + Amoxicillin 1 g BID + Clarithromycin 500 mg BID	14	80 - 86
Lansoprazole 30 mg BID + Amoxicillin 1 g BID + Clarithromycin 500 mg BID	10 - 14	86
Bismuth subsalicylate 525 mg QID + Metronidazole 250 mg QID + Tetracycline 500 mg + PPI	PPI for another 14 taken OD OD = Once BID = twice a day. QID = 4 times a day. or BID)	80

- Pooled data from 20 studies involving 1975 patients treated with standard triple therapy showed an eradication rate of 88% in clarithromycin-sensitive strains vs 18% in clarithromycin-resistant strains.

Clarithromycin-resistant bacteria

- A 10-day sequential regimen

First 5 days PPI and **amoxicillin** 1 g, each given twice daily.

Second 5 days PPI, **clarithromycin** 500 mg, and **tinidazole** 500 mg, each given twice daily.

- Improved overall eradication rates compared with standard PPI triple therapy (89% vs. 77%), but was particularly better for clarithromycin-resistant bacteria (89% vs. 29%).

Concomitant therapy

Novel regimen which was proved successful in the presence of clarithromycin resistance. This is a 4-drug regimen containing a PPI, **clarithromycin** (500 mg, b.i.d.), **amoxicillin** (1 g, b.i.d.) and **metronidazole** (500 mg, b.i.d.) which are all given for the entire duration of therapy.

Analysis Population	N	Eradicated		95% CI for Percent Eradicated
		N	Percent	
Intention to Treat (ITT)	1463			
14-day Standard	488	401	82.2%	78.5%, 85.5%
5-day Concomitant	489	360	73.6%	69.5%, 77.5%
10-day Sequential	486	372	76.5%	72.5%, 80.2%

- In positive family history of gastric ulcer or lymphoma, we need to look for H.pylori and eradicate it because of increased risk of developing these types of cancers.
- Some patients don't continue their therapy course, why?
 - They think they are already cured (but actually it was PPI relief)
 - They want to stop because of therapy's side effects

Rescue therapy:

When some patients had resistance for sequential therapy, they came up with rescue therapy.

Regimen	Comment
PPI, levofloxacin 250 to 500 mg, amoxicillin 1 gm all twice daily for 14 days	"Rescue" therapy for those failing two course of above treatments
PPI, rifabutin 150 mg, amoxicillin 1 gm all twice daily for 14 days	Alternative "rescue" therapy
Based on culture	If all medications listed above didn't work then we do culture. Why usually we don't do culture? because it takes time, we usually do UBT, endoscopy and routine histopathology

- Poor compliance with medication, and patient demographics such as younger age, smoking, prior antibiotic use, and underlying condition (functional dyspepsia vs. peptic ulcer).

What is IBS?

- Irritable bowel syndrome (IBS) is an intestinal disorder that causes abdominal pain or discomfort, cramping or bloating, and diarrhea or constipation. Irritable bowel syndrome is a long-term but manageable condition.

- It is predominantly a pain syndrome of unknown etiology that is often relieved by bowel movement.
- Educate patient that this is a chronic disease that stays for life.

Who gets IBS?

- It is estimated that between 10% and 15% of the population of North America, or approximately 45 million people, have irritable bowel syndrome.
- only about 30% of them will consult a doctor about their symptoms.
- IBS tends to be more common in women, IBS is 2 to 3 times more common than in men.

Rome III diagnostic criteria:

- At least **12 weeks** history, which need not be consecutive in the last **12 months** of abdominal discomfort or pain that has 2 or more of the following:

Relieved by defecation.

Onset associated with change in stool frequency.

Onset associated with change in form of the stool.

General

- Feeling of incomplete evacuation.
- Passing mucus per rectum.
- Abdominal fullness, bloating or swelling.

These are supportive features

Associated Symptoms

- In people with IBS in hospital OPD.
 - 25% have depression.
 - 25% have anxiety.
- In one study 30% of women IBS sufferers have fibromyalgia

Always ask about alarming symptoms.

Manning's Criteria (General + the three above)

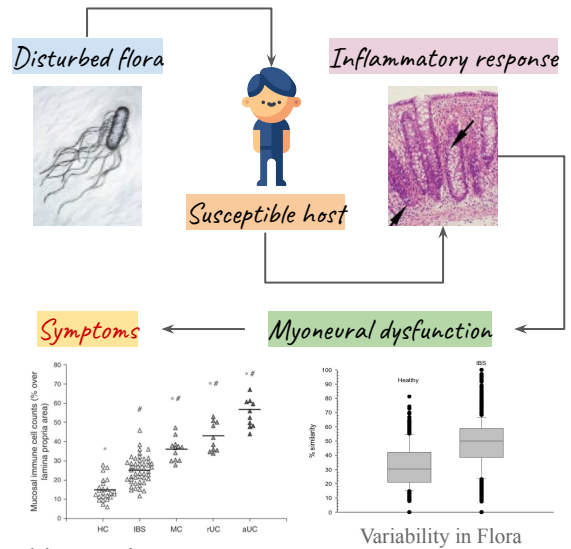
Rome II diagnostic criteria:

Suppurative symptoms

- Constipation predominant: one or more of:
 - BO less than 3 times a week.
 - Hard or lumpy stools.
 - Straining during a bowel movement.
- Diarrhea predominant: one or more of:
 - **More than 3 bowel movement per day.**
 - Loose (mushy) or watery stools.
 - Urgency.

IBS pathophysiology:

- Heredity; nature vs nurture
- Dysmotility, “spasm”
- Visceral Hypersensitivity
- Altered CNS perception of visceral events
- Psychopathology
- Infection/Inflammation
- Altered Gut Flora



Mucosal Compartment:

- Frank inflammation
- Immune Activation
 - ↑ IEL's
 - ↑ CD3+, CD25+
- Decreased IgA + B Cells
- Altered expression of genes involved in mucosal immunity

Evidence for a role for the Gut Flora in IBS:

- Direct evidence of an altered gut flora:
 - Post-Infectious IBS (PI-IBS)
 - Small Intestinal Bacterial Overgrowth (SIBO)
 - Altered Colonic Flora
- Evidence of physiological effects of an altered flora:
 - Changes in stool volume/consistency
 - Bile salt deconjugation
 - Alterations in gas volume/composition
 - Fermentation
- Mediator of pro-inflammatory state
- Therapeutic impact of altering flora

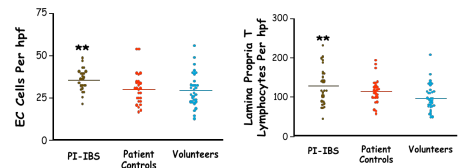
Post-Infectious IBS

10-14% incidence following confirmed bacterial gastroenteritis

Risk factors

- Female
- Severe illness
- Pre-morbid psyche
- Depression
- Persistent inflammation
- EC cells
- T lymphocytes

Patient say to you they had gastroenteritis and after it they started feeling IBS symptoms (even after a year from gastroenteritis they still get IBS symptoms)



IBS Subtypes:



Diarrhoea predominant.



Constipation predominant.



Pain predominant.

Differential diagnosis:

IBD

Cancer

Diverticulosis

Endometriosis

Celiac disease

Assessment:

Results should be normal or non-specific.

Abdomen and rectal examination.

Diagnostic testing in IBS

1. CBC, LFT
2. Stool analysis
3. TFT
4. Celiac Ab
5. **Current best evidence does not support the routine use of blood tests to exclude organic gastrointestinal disease in patients who present with typical IBS symptoms without alarm features.**

Hydrogen Breath Testing:

Lactose malabsorption (typically diagnosed via abnormal hydrogen breath testing) is estimated to be approximately 25% in western countries and perhaps as high as 75% worldwide.

Abdominal Imaging:



US

Barium enema

Colonoscopy

Prevalence of colorectal cancer in these studies was low, ranging from 0 to 0.51%.

Abdominal imaging is usually not used in IBS patients, because the prevalence of colon cancer in IBS patients is low.
(both abdominal imaging and biopsy will be **normal** in IBS)

Reasons to Refer

1. Age > 45 years at onset. *Because in this age the symptoms of IBS usually disappear*
2. Family history of bowel cancer.
3. Failure of primary care management.
4. Uncertainty of diagnosis.
5. Abnormality on examination or investigation.

Urgent Referral

1. Constant abdominal pain
 2. Constant diarrhea
 3. Constant distension
 4. Rectal bleeding
 5. Weight loss or malaise.
- Fever, **Anemia** alarming symptoms



Treatment

Patients' concerns.

Explanation

Treatment approaches

(patient reassurance is very important... show him that you understand their complaints so they don't think have something serious)

Placebo effect of up to 70% in all IBS treatments.
Treatment should depend on symptom sub-type.

Pain Predominant:

- Antispasmodics will help 66%.
- Mebeverine is probably first choice.
- Hyoscine 10mg qid can be added.

A study

- A recent meta-analysis of 22 studies involving 1778 patients and 12 different antispasmodic agents demonstrated modest improvements in global IBS symptoms and abdominal pain
- However, up to 68% of patients suffered side effects when given the high dose required to improve abdominal pain

Antidepressants:

- Poor evidence for efficacy.
- Better evidence for tricyclics.
- Very little evidence for SSRIs selective serotonin reuptake inhibitors

SSRIs

- Six studies have been conducted to date, two each involving fluoxetine, paroxetine and citalopram.
- Most patients noted an improvement in overall wellbeing, although none of the studies showed any benefit with regards to bowel habits, and abdominal pain was generally not improved.

Constipation Predominant IBS:

- **Lifestyle Modifications**
- **Bowel Training and Education**
- **Fibre**
 - Twelve randomized controlled trials have been performed to date evaluating the efficacy of fiber in the treatment of IBS. Four of these studies noted an improvement in stool frequency (polycarbophil and ispaghula husk), while one noted an improvement in stool evacuation
 - No improvement in abdominal pain
 - 30-50% of patients treated with a fiber product will have a significant increase in gas
- **Lubiprostone** stimulates type 2 chloride channels in epithelial cells of the gastrointestinal tract thereby causing an efflux of chloride into the intestinal lumen Why chloride channels? when chloride is not absorbed thus sodium also is not absorbed, when sodium is not absorbed water is not absorbed thus this may relief constipation
 - It was approved by the FDA for the treatment of adult men and women with chronic constipation in January 2006
 - Nausea and diarrhea 6-8%

Diarrhea Predominant IBS:

- **Increasing dietary fibre is sensible advice.**
- **Fibre varies, 55% of patients will get worse with bran.**
- **Loperamide** inhibiting intestinal secretion and peristalsis, loperamide slows intestinal transit and allows for increased fluid reabsorption, thus improving symptoms of diarrhea
- **Alosetron** is 5-HT₃ receptor antagonist that slows colonic transit
 - **Meta-analysis of eight randomized controlled trials involving 4842 patients determined that alosetron provided a significant reduction in the global symptoms of diarrhea, abdominal pain, and bloating in patients with IBS and diarrhea**
 - Four-fold increased risk for **ischemic colitis** compared

Actually fibers are used in both diarrhea and constipation... what is the difference? It depends on the amount of water you take with the fiber.

If you take too much water with fiber then it works as a lubricant and improves bowel movement.

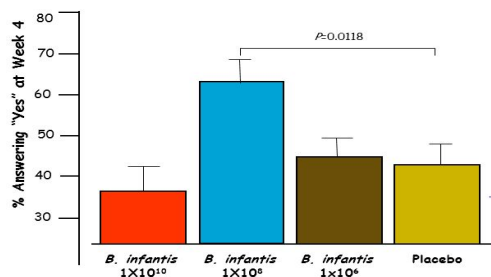
While if you take fibers with minimal amount of water (as adding fibers to yoghurt) then fiber work as a sponge and make stool bulky)

Probiotics

Mode of Action of Probiotics?

- Competition with, and exclusion, of pathogens
- Anti-bacterial:
 - Produce bacteriocins
 - Destroy toxins
- Enhance barrier function, motility
- Enhance host immunity by :
 - Immune modulation
 - Cytokine modulation
 - IgA production
- Metabolic functions

Global assessment of symptom relief:



What about diet?

- Avoid caffeine.
- Limit your intake of fatty foods.
- If diarrhea is your main symptom, limit dairy products, fruit, or the artificial sweetener sorbitol.
- Increasing fiber in your diet may help relieve constipation.
- Avoiding foods such as beans, cabbage, or uncooked cauliflower or broccoli can help relieve bloating or gas.

Alternative and complementary medicine:

- Peppermint, germanium, lavender oils
- RCT of 57 IBS patients randomized to receive either peppermint capsules or placebo demonstrated a significant benefit for the peppermint-treated group after 4 weeks.
- Seventy-five percent of the study group versus 38% of the placebo group reported a greater than **50%** reduction in total IBS symptoms

Alternative Medicine:

- **Hypnosis**: Hypnosis can help some people relax, which may relieve abdominal pain.
- **Relaxation or meditation**: Relaxation training and meditation may be helpful in reducing generalized muscle tension and abdominal pain.
- **Biofeedback**: Biofeedback training may help relieve pain from intestinal spasms. It also may help improve bowel movement control in people who have severe diarrhea.

Self-help:

Cases

A 34 y/o lady who comes to your clinic because of epigastric pain since 5m ago. She complains of bloating and early satiety too. There is no alarm symptom in her history. She use no medications. Her physical examination is normal. What is the most important information from this scenario ? 1) Age 2) Duration, it's chronic pain 3) No alarming symptoms

1

What is the most likely diagnosis?

- A. Dyspepsia
- B. Peptic ulcer disease
- C. Pancreatitis
- D. Gastric cancer

Answer: A

What is the next step ?

- A. Endoscopy (no alarming symptoms in this case so not the best answer)
- B. High dose PPI (if H.pylori is negative)
- C. H pylori testing (the best answer according to this case, and in our culture H.pylori is prevalent so it is better to do it first)
- D. Ultrasound abdomen

- Drugs that might cause upper epigastric pain are NSAIDs, aspirin, antibiotics, iron and potassium supplements.

A patient was a 60 y/o lady who was referred to me because of constant epigastric pain. She mentioned 6 kg wt loss since 3m ago. She was anemic with ferritin =5.

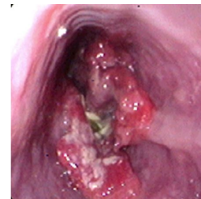
2

What is the best diagnostic test?

- A. Endoscopy
- B. High dose PPI
- C. H pylori testing
- D. Ultrasound abdomen

Answer: A, because of the presence of alarming symptoms in this case as weight loss and anemia.

When do we do endoscopy? In presence of alarming symptoms or when not responding to treatment or age >55.



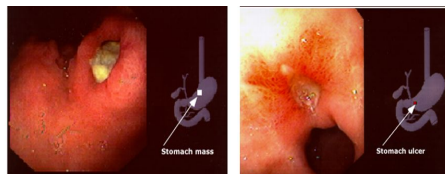
A 44 y/o lady who was referred to me because of chronic epigastric pain mainly at night

(you need to think about structural or organic disease rather than functional) and vomiting. She gave a history of one day history of melena but no other alarm symptoms.

We need to do an analysis first according to the algorithm, but in this case it's not straightforward since she is less than 55 y/o + chronic pain but recently she had melena (alarming symptom), we also need to ask about NSAIDs use, because the most common cause of peptic ulcer is H.pylori Infection followed by NSAIDs use

What is the next step?

Endoscopy (it showed gastric ulcer caused by H.pylori)
What also increase risk of ulcer? Stress of burn, gastrinoma...etc



3

A 30 years old lady with chronic abdominal pain mainly central associated with bloating. Alternating bowel habit and history of passing mucus with loose motions no Wt loss no blood/rectum We get from the history : Age (not old), chronicity and no alarming symptoms.

4

What is the likely diagnosis?

- A. Pancreatitis
- B. PUD
- C. IBS
- D. Gastric cancer

Answer: C

Summary

Dyspepsia

Clinical Approach:

History

- Ulcer-like or acid dyspepsia
- Dysmotility-like dyspepsia
- Unspecified dyspepsia

Physical examination

- usually normal

Routine laboratory tests:

Routine blood count

Blood chemistry

Indications for endoscopy

Presence of alarming symptoms

Unintended weight loss - Persistent vomiting
 - Progressive dysphagia - Odynophagia -
 Hematemesis - Unexplained anemia or iron deficiency - Palpable abdominal mass or lymphadenopathy - Family history of upper gastrointestinal cancer - Previous gastric surgery - Jaundice

Age >55

Irritable bowel syndrome

Clinical Feature

- Recurrent Cramping abdominal pain characterized by "Relieved by defecation and Less at night"
 - Change frequency and consistency of stool
 - Abnormal stool passage
 Bloating

Diagnosis

"clinical diagnosis of exclusion"

- Rome III criteria
 - Manning's Criteria.
 - Rome II Diagnostic Criteria
 - Ask about Alarm symptoms that suggest other serious diseases to exclude them

Reasons to Refer

- Age > 45 years at onset.
 - Family history of bowel cancer.
 - Failure of primary care management.
 - Uncertainty of diagnosis.
 - Abnormality on examination or investigation.

Urgent Referral

- Constant abdominal pain.
 - Constant diarrhoea.
 - Constant distension.
 - Rectal bleeding.
 - Weight loss or malaise.

Summary

Management of H.pylori

Clarithromycin-sensitive

1st line treatment regimen of choice

“PPI, amoxicillin, clarithromycin” twice daily for 7-14 days

Penicillin allergy

“PPI, metronidazole, clarithromycin” twice daily for 7-14 days

Macrolide allergy

“PPI, amoxicillin, metronidazole” twice daily for 14 days

generally reserved for retreatment

“Bismuth, metronidazole, tetracycline” 4 times daily + PPI twice daily for 7-14 days

Clarithromycin-resistant

10-day sequential regimen

“PPI+amoxicillin” 2/day for the first 5 days, followed by “PPI+clarithromycin+ tinidazole” each given 2/day for the remaining 5 days

H.pylori as a cause of PUD

Diagnosis

Non endoscopic methods

- Serum antigen
- Urea breath test
- Stool antigen

Endoscopic methods

- Histology
- Rapid urease test
- Culture
- PCR

Questions

1- A 23 year old female patient complains of left lower quadrant pain, constipation and bloating that persisted with her for one year. The pain is usually relieved by defecation. What's the most appropriate diagnosis?

- A. Ulcerative colitis
- B. Irritable bowel syndrome
- C. Diverticulitis
- D. Gastritis

2- colonoscopy was done to the patient in Q1. which one of the following do you expect to see?

- A. Cobblestone appearance
- B. Continuous inflammation of the colonic mucosa
- C. Diverticulosis
- D. Normal

3- Which one of these is the diagnostic criteria for IBS?

- A. Glasgow-Blatchford score
- B. Rome I
- C. Rome III
- D. Rome IV

4- A 58 y/o lady who was referred to your clinic because of epigastric pain for the past 6m associated with nausea and bloating. Physical examination and labs findings were normal. What are you gonna do next?

- A. Give a high dose PPI
- B. UBT
- C. Endoscopy
- D. Reassure the patient

5- which one of the following is a non-endoscopic method for the diagnosis of H.pylori?

- A. rapid urease test
- B. Urea breath test
- C. PCR
- D. Histology

6- which of the following can be used to measure the effect of the treatment in patients diagnosed with H.pylori?

- A. rapid urease test
- B. Urea breath test
- C. PCR
- D. Stool antigen

Questions

7- A lady comes to your clinic because of epigastric pain since 5m ago. She complains of bloating and mainly early satiety too. Which one of the following in an indication for endoscopy in her case?

- A. Age > 40
- B. Family history of IBS
- C. Hg level is 12.7
- D. Pain during swallowing

8- patient is allergic to macrolides was diagnosed with peptic ulcer due to H.pylori infection. Which one of the following is the first line of treatment in this patient?

- A. PPI, amoxicillin, metronidazole all twice daily for 7 days
- B. PPI, amoxicillin, clarithromycin all twice daily for 7-14 days
- C. Bismuth, metronidazole, tetracycline all four times daily with a PPI twice daily for 7-14 days
- D. PPI, amoxicillin, metronidazole all twice daily for 14 days

Answers:

- 1.B
- 2.D
- 3.C
- 4.C
- 5.B
- 6.B and D
- 7.D
- 8.D