SLS (CHANGES IN BOWEL HABITS)

Fahad Alajlan
Hisham Algosy
Abdulkarim alharbi
Faisal Alyahya
Faisal Alzeer

OBJECTIVES

- Define constipation and diarrhea
- Discuss the definition, etiology and classification of irritable bowel syndrome (IBS)
- Demonstrate history taking, physical examination, and management for patients presented with history suggestive of IBS. i.e Role play.
- Discuss the alarm symptoms in patients presenting with change bowel habit.
- Identity the criteria for the referral to specialist
- Practical: Examination of Abdomen, How to do?

TEST YOUR KNOWLEDGE..

1-A 37-year-old woman reports a 10-year history of intermittent abdominal pain and constipation alternating with diarrhea. She has no weight loss, fever, or worrisome features on examination. Which of the following agents is clinically indicated as a first-line treatment for mild-to-moderate abdominal pain associated with IBS?

A. Amitriptyline

B. Lubiprostone

C. Dicyclomine

D. Fluoxetine

2) What is the best way of diagnosing IBS?

A- By excluding other causes. (A diagnosis of exclusion)

B- By Rome IV criteria.

C- By excluding the presence of red flags.

D- By Rome IV criteria and excluding the presence of red flags.

3- A 27-year-old graduate student in psychology is evaluated for intermittent abdominal pain. She is diagnosed with IBS. She asks whether there is a relationship between psychiatric disorders and IBS. Which of the following statements is most accurate?

A. IBS is usually caused by the underlying psychiatric disorder.

B. Psychiatric conditions may worsen coexisting IBS.

C. Successfully treating the psychiatric comorbidity causes remission of IBS.

D. No evidence supports a relationship between IBS and psychiatric disorders.

4- **Which of the following is an indication for referral in IBS patients ?**

A. Significant unexplained weight loss
B. Age of onset before 50 years
C. Anemia with explained cause
D. Minimal rectal bleeding

5- A 65-year-old man reports a lifelong history of IBS with alternating bouts of constipation and diarrhea. He denies any so-called alarm symptoms, but does report that his symptoms have worsened over the last several months. He reports never having a colonoscopy before. Stool is negative for blood and leukocytes. Which of the following is the most important next step?

A. Esophagogastroduodenoscopy (EGO).

B. Explore possible underlying psychiatric symptoms.

C. Colonoscopy.

D. Increase fiber intake.

DIARRHEA

Diarrhea is defined either as the presence of more than three bowel movements per day, water content exceeding 75%, or a stool quantity of at least 200–250 g per day.

Classification ?

DDX OF DIARRHEA

Functional disorders: IBS

Organic disorders:

Inflammatory bowel disease

Microscopic colitis

Malabsorption syndromes

Post-cholecystectomy diarrhea

Chronic infections

Medications

Causes of chronic diarrhea

Common
▪ IBS-diarrhea
▪ Bile acid diarrhea
▪ Diet
• FODMAP malabsorption
○ Lactase deficiency is highly prevalent in non-Caucasian ethnic groups
• Artificial sweeteners (eg, sorbitol, xylol in chewing gym, soft drinks)
• Caffeine (eg, coffee, coke, energy drinks)
• Excess alcohol
• Excess liquorice
▪ Colonic neoplasia
▪ Inflammatory bowel disease
• Ulcerative colitis
• Crohn's disease
• Microscopic colitis
▪ Celiac disease
▪ Drugs
• Antibiotics, in particular macrolides (eg, erythromycin)
• Non-steroidal anti-inflammatory drugs
• Magnesium-containing products
• Hypoglycemic agents (eg, metformin, gliptins)
• Antineoplastic agents
• Others (eg, furosemide, Olestra)
▪ Recurrent *Clostridioides (formerly Clostridium) difficile* diarrhea
▪ Overflow diarrhea
Infrequent
▪ Small bowel bacterial overgrowth
▪ Mesenteric ischaemia
▪ Lymphoma
▪ Surgical causes (eg, small bowel resections, fecal incontinence, internal fistula)
▪ Chronic pancreatitis
▪ Radiation enteropathy
▪ Pancreatic carcinoma
▪ Hyperthyroidism
▪ Diabetes
▪ Giardiasis (and other chronic infection)
▪ Cystic fibrosis
Rare
▪ Other small bowel enteropathies (eg, Whipple's disease, tropical sprue, amyloid, intestinal lymphangiectasia)
▪ Hypoparathyroidism
▪ Addison's disease
▪ Hormone secreting tumors (VIPoma, gastrinoma, carcinoid)
▪ Autonomic neuropathy
▪ Factitious diarrhea
▪ Brainerd diarrhea (possible infectious cause not identified)

Adapted with permission from: Arasaradnam RP, Brown S, Forbes A, et al. Guidelines for the investigation of chronic diarrhoea in adults: British Society of Gastroenterology, 3rd edition. Gut 2018; 67(8):1380-1389. Copyright © 2018 BMJ Publishing Group Ltd.

UpToDate®

Medications associated with diarrhea

System targeted by drug	Type of agent	Examples
Cardiovascular	Antiarrhythmics	Digoxin Procainamide Quinidine
	Antihypertensives	ACE-inhibitors Angiotensin II receptor blockers* Beta-blockers Hydralazine Methyldopa
	Cholesterol-lowering agents	Clofibrate Gemfibrozil Statins
	Diuretics	Acetazolamide Ethacrynic acid Furosemide
Central nervous system	Antianxiety drugs	Alprazolam Meprobamate
	Antiparkinsonian drugs	Levodopa
	Other agents	Anticholinergic agents Fluoxetine Lithium Tacrine
Endocrine	Oral hypoglycemic agents	Metformin
	Thyroid replacement therapy	Synthroid
Gastrointestinal	Antiulcer/antacid drugs	H2-receptor antagonists Magnesium containing antacids Misoprostol Proton pump inhibitors
	Bile acids	Chenodeoxycholic acid Ursodeoxycholic acid
	Laxatives	Cathartics Lactulose Sorbitol
	Treatments for inflammatory bowel disease	5-aminosalycilates (particularly olsalazine)
Musculoskeletal	Gold salts	Auranofin
	Nonsteroidal antiinflammatory drugs	Ibuprofen Mefenamic acid Naproxen Phenylbutazone
	Treatments for gout	Colchicine
Other	Antibiotics¶	Amoxicillin Ampicillin Cephalosporins Clindamycin Neomycin Tetracycline
	Antineoplastic agents	Many
	Dietary	Alcohol Sugar substitutes (eg, sorbitol)
	Vitamins	Magnesium Vitamin C

ACE: angiotensin converting enzyme.
* Olmesartan has been associated with sprue-like enteropathy.
¶ Most antibiotics have been associated with diarrhea.

Data from:

1. *Holt PR. Diarrhea and malabsorption in the elderly. Gastroenterol Clin North Am 2001; 30:427.*
2. *Ratnaike RN, Jones TE. Mechanisms of drug-induced diarrhoea in the elderly. Drugs Aging 1998; 13:245.*

UpToDate®

CONSTIPATION

Constipation is defined as infrequent passage of hard stools. Or as three or fewer bowel movements per week.

Patients may complain of straining, a sensation of incomplete defecation and either perianal or abdominal discomfort.

Causes of chronic constipation

Neurogenic disorders
Peripheral
Diabetes mellitus
Autonomic neuropathy
Hirschsprung disease
Chagas disease
Intestinal pseudoobstruction
Central
Multiple sclerosis
Spinal cord injury
Parkinson disease
Irritable bowel syndrome
Drugs
See separate table

Non-neurogenic disorders
Hypothyroidism
Hypokalemia
Anorexia nervosa
Pregnancy
Panhypopituitarism
Systemic sclerosis
Myotonic dystrophy
Idiopathic constipation
Normal colonic transit
Slow transit constipation
Dyssynergic defecation

UpToDate®

Drugs associated with constipation

Analgesics
Anticholinergics
Antihistamines
Antispasmodics
Antidepressants
Antipsychotics
Cation-containing agents
Iron supplements
Aluminum (antacids, sucralfate)
Barium
Neurally active agents
Opiates
Antihypertensives
Ganglionic blockers
Vinca alkaloids
Calcium channel blockers
5HT3 antagonists

UpToDate®

CASE SCENARIO

22-year-old woman with a 2-year history of abdominal pain and diarrhea Experiences intermittent episodes of lower abdominal cramping and bloating associated with 4-6 loose bowel movements occurring ~2 days per week Abdominal pain seems to occur shortly after meals or at times of increased stress, and subsides after a bowel movement

WHAT IS IBS ?

it is a life-long (chronic) functional “not structural” disorder of the digestive system that affect the large intestine. It is characterized by the presence of abdominal pain or discomfort with altered bowel habits for at least 6 months, in the absence of a specific organic pathology.

PREVALENCE

Prevalence in the general population is estimated to be between 10 % and 20 %.

IBS most often affects people between the ages of 20 and 30 years.

It is twice as common in women as in men

ETIOLOGY

The causes of irritable bowel syndrome have not been adequately defined, but Factors that appear to play a role :

- Disturbed colonic motility.
- Nervous system (Gut hypersensitivity).
- Inflammation in the intestines : Some IBS patients have an increased number of immune -system cells in their intestines. This immune-system response is associated with pain and diarrhea.
- Severe infection(gastroenteritis)
- Microbial imbalance in the gut (dysbiosis).
- Changes in bacteria in the gut (microflora).

CLASSIFICATION OF IBS

Classifying patients with IBS into specific subtypes based on predominant bowel habits is useful as it helps focus treatment on the predominant, and often, the most bothersome symptom.

IBS is classified into four subtypes:

1. IBS with constipation (IBS-C)
2. IBS with diarrhea (IBS-D)
3. Mixed IBS (IBS-M)
4. Unspecified IBS (IBS-U)

CLASSIFICATION OF IBS

- **IBS with constipation (IBS-C):** hard or lumpy stools for more than 25% of bowel movements and loose (mushy) or watery stools for less than 25% of bowel movements.
- **IBS with diarrhoea (IBS-D):** loose or watery stools for more than 25% of bowel movements and hard or lumpy stool for more than 25% of bowel movements.
- **Mixed IBS (IBS-M):** hard or lumpy stools for less than 25% of bowel movements and loose (mushy) or watery stools for ≤25% of bowel movements.
- **Unspecified IBS:** insufficient abnormality of stool consistency to meet criteria for above subtypes.

APPROACH TO IBS PATIENT

History taking

DDx

Physical Examination

DDx

Investigations

DDx

Diagnosis

Treatment

HISTORY

Personal information

Chief complaint

Presenting illness

Past medical/surgical, medications, social, family history

Systematic review

CHIEF COMPLIANT 1

A-Abdominal pain

B-Changing in bowel habits

C-Bloating

D-Change in stool stool form or appearance

CHIEF COMPLIANT 2

Intermittent

for >= 3 months

HPI KEY INFORMATION A1

Site and radiation of pain

(diffuse non-radiating in the left lower abdomen)

Onset of pain

(chronic and superimposing acute episodes)

Frequency of pain

(>=1 per week)

HPI KEY INFORMATION A2

Severity of pain

(mostly low in chronic and moderate in acute episodes)

Character of pain

(dull in chronic, sharp in acute episodes)

Alleviating and Aggravating Factors of pain

(meals aggravate and defecation alleviate)

HPI KEY INFORMATION B1

Alternating constipation and diarrhea

Usually one predominates

Postprandial urgency

Constipation is not well responding to laxitives

HPI KEY INFORMATION C1

Bloating:

Aggravated by meals

relived by defecation

HPI KEY INFORMATION D1

Change in stool form or appearance:

Mucoid

Loose low volume in diarrhea , or hard narrow caliber in constipation

HPI KEY INFORMATION EXTRA 1

Exclude Other causes

alarm Sx

PAST MEDICAL/SURGICAL, SOCIAL, ETC

History of chronic disease

History of malignancy

Medications

smoking

alcohol.

recent travel.

Diet

Allergies

family history of chronic disease. similar problem, malignancy

DDX?

Cholithiasis ,Cholangitis, Biliary colic, cholecystitis

Peptic ulcer disease

Food allergy

Bacterial Gastroenteritis, diverticulitis, infectious colitis

IBD

Chronic Pancreatitis

Intestinal ischemia

Hepatitis

GI neoplasm

Drug adverse effect

PHYSICAL EXAMINATION 1

General appearance (normal or slightly distressed if currently in pain)

Vitals (normal)

Weight

Height

BMI

PHYSICAL EXAMINATION 2

Abdominal examination

Mainly normal but might have sigmoid tenderness

DDX?

IBS

Food intolerances, including lactose, fructose

enteritis, enteritis, diverticulitis, infectious colitis

IBD

GI neoplasm

Medication adverse effect

INVESTIGATIONS

CBC to detect anemia indicative of malignancy

Dietary Studies (lactose-free diet for 1 week)

DIAGNOSIS

Criteria Rome IV criteria

recurrent abdominal pain on average at least 1 day per week during the previous 3 months

associated with two or more of

Related to defecation (may be increased or unchanged by defecation)

Associated with a change in stool frequency

Associated with a change in stool form or appearance

MANAGEMENT 1

Education and reassurance

(chronic disease, does increase risk of cancer)

lifestyle and dietary modification alone for mild cases.

(avoid: gas producing food such as onions, and fermentable sugars such as honey)

(Physical Exercise)

MANAGEMENT 2

pharmacologic therapy is indicated in moderate to severe cases and in failed initial treatment in mild cases.

In constipation predominant :

soluble fiber (eg, psyllium), if failed → use polyethylene glycol (PEG), if failed → use lubiprostone

in diarrheal predominant :

antidiarrheals (eg, loperamide), if failed → use bile acid sequestrants (eg, cholestyramine), if failed → serotonin receptor antagonists (Alosetron)

MANAGEMENT 3

For abdominal pain :

Antispasmodic agents (e.g hyoscyamine)

others:

CBT

Probiotics

ALARMING SYMPTOMS

- Age of onset after age 50 years
- Rectal bleeding or melena
- Nocturnal diarrhea
- Progressive abdominal pain
- Unexplained weight loss
- Laboratory abnormalities (iron deficiency anemia, elevated C-reactive protein or fecal calprotectin/lactoferrin)
- Family history of IBD or colorectal cancer

COLON CANCER

Symptoms :

- Change in bowel habits (most common presentation)
- Rectal bleeding in combination with change in bowel habits
- Rectal mass or abdominal mass
- Iron deficiency anemia
- Abdominal pain as a single symptom (least common presentation)

ROLE PLAY

INDICATIONS FOR REFERRAL:

- Unexplained weight loss
- Unexplained iron deficiency anemia
- More than minimal rectal bleeding
- Nocturnal symptoms
- Family history of colon cancer, IBD or celiac sprue

PATIENTS PRESENTING IBS SYMPTOMS SHOULD BE CLINICALLY EXAMINED FOR THE FOLLOWING 'RED FLAG':

- Anemia
- abdominal masses
- rectal masses
- inflammatory markers for inflammatory bowel disease

1-A 37-year-old woman reports a 10-year history of intermittent abdominal pain and constipation alternating with diarrhea. She has no weight loss, fever, or worrisome features on examination. Which of the following agents is clinically indicated as a first-line treatment for mild-to-moderate abdominal pain associated with IBS?

A. Amitriptyline

B. Lubiprostone

C. Dicyclomine

D. Fluoxetine

2) What is the best way of diagnosing IBS?

A- By excluding other causes. (A diagnosis of exclusion)

B- By Rome IV criteria.

C- By excluding the presence of red flags.

D- By Rome IV criteria and excluding the presence of red flags.

3- A 27-year-old graduate student in psychology is evaluated for intermittent abdominal pain. She is diagnosed with IBS. She asks whether there is a relationship between psychiatric disorders and IBS. Which of the following statements is most accurate?

A. IBS is usually caused by the underlying psychiatric disorder.

B. Psychiatric conditions may worsen coexisting IBS.

C. Successfully treating the psychiatric comorbidity causes remission of IBS.

D. No evidence supports a relationship between IBS and psychiatric disorders.

4- **Which of the following is an indication for referral in IBS patients ?**

A. Significant unexplained weight loss
B. Age of onset before 50 years
C. Anemia with explained cause
D. Minimal rectal bleeding

5- A 65-year-old man reports a lifelong history of IBS with alternating bouts of constipation and diarrhea. He denies any so-called alarm symptoms, but does report that his symptoms have worsened over the last several months. He reports never having a colonoscopy before. Stool is negative for blood and leukocytes. Which of the following is the most important next step?

A. Esophagogastroduodenoscopy (EGO).

B. Explore possible underlying psychiatric symptoms.

C. Colonoscopy.

D. Increase fiber intake.

REFERENCES

- Medscape
- UpToDate

THANK YOU FOR LISTENING.