Revised by
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IRRITABLE BOWEL SYNDROME

(GIRLS NOTES AND SLIDES ONLY)

لا يمتطي المجد من لم يركب الخطر ... ولا ينال العلى من قدم الحذرا
و من اراد العلا عفوا بلا تعب ... قضى و لم يقض من إدراكها وطرا

Important Doctor's notes Extra explanation

Lecture's objectives:

- Understand the hypothesis explain the pathophysiology of IBS.
- Common sign and symptoms
- Rome III criteria of diagnosis
- Introduction to management of IBS

Irritable bowel syndrome

- Irritable bowel syndrome (IBS): (Accounts for about 70% of visits to the clinic so they are very common.)
- Is a gastrointestinal disorder characterized by chronic abdominal pain and altered bowel habits in the absence of any organic cause. It is the most commonly diagnosed gastrointestinal condition. (Affects any part of the GI due to hypersensitivity, not due to anxiety only)
- The pathophysiology of IBS remains uncertain. (The exact mechanism is unknown but there are number of theories, which are not true for all the patients!)
- It is viewed as a disorder resulting from an interaction among a number of factors.

(Imaging, stool analysis & endoscopy show normal findings in IBS,

Because of the absence of organic case)

IBS Subtypes:

	1-IBS with constipation: The easiest type to treat	2-IBS with diarrhea	3-Mixed IBS	4-Un-subtypes IBS
Hard or Lumpy Percentage in bowl movement	≥25%	<5%	≥25 %	Insufficient abnormality of stool consistency to meet the other subtypes.
Loose or Watery Percentage in bowl movement	<25%	≥25%	≥25%	

*Side note 1: for research purposes, patients with IBS ingest a capsule filled with radiopaque substance to assess GIT motility.

Pathophysiology of IBS

1- GASTROINTESTINAL MOTILITY

↑ Motility= Diarrhea

↓ Motility= constipation

Check the *Side note

- Motor abnormalities of the GI tract are detectable in Some patients with IBS
- Abnormalities observed include:
  1. Increased frequency and irregularity of luminal contractions
  2. Prolonged transit time in constipation-predominant IBS

2- VISCERAL HYPERSENSITIVITY

Check the *Side note 2 next page

- Visceral hypersensitivity (increased sensation in response to stimuli) is a frequent finding in IBS patients.
- Perception in the gastrointestinal (GI) tract results from stimulation of various receptors in the gut wall. These receptors transmit signals via afferent neural pathways to the dorsal horn of the spinal cord and ultimately to the brain.

Distention:	Various studies have shown that in patients with IBS, awareness and pain caused by balloon distention in the intestine are experienced at lower balloon volumes compared with controls.*
Bloating:	About half of patients with IBS (mainly those with constipation) have a measurable increase in abdominal girth associated with bloating (sensation of abdominal fullness).

It is unclear whether heightened sensitivity of the intestines to normal sensations is mediated by the local GI nervous system, by central modulation from the brain, or by some combination of the two.

*Side note 2: A balloon was inserted in the GI of some patients:

1. Normal patients = no signs of pain. 2.Patients with IBS = presented with severe pain.

Pathophysiology of IBS			
	3-INTESTINAL INFLAMMATION	✪ Increased numbers of lymphocytes have been reported in the colon and small intestine in patients with IBS. ✪ Increase in lymphocyte infiltration in the myenteric plexus in nine patients and neuron degeneration in six patients. ✪ These cells release mediators(nitric oxide, histamine and proteases)capable of ➔ stimulating the enteric nervous system ➔abnormal motor and visceral responses within the intestine	
	4- ALTERATION IN FECAL MICROFLORA	1. Change in gut microbiota: (normal flora) Emerging data suggest that the fecal microbiota in individuals with IBS differ from healthy controls and varies with the predominant symptom	2. BacterialOvergrowth (either probiotics: taking the bacteria itself and eating them prebiotics: taking food that promotes the growth of bacteria)
	5- POSTINFECTIOUS	after being infected by a microbe, they will develop IBS (like what happened in Ontario a lot of people were diagnosed with gastroenteritis caused by E.coli some of the patients were cured within 6 months & the others developed IBS.)	
	6- FOOD SENSITIVITY	The notion of food allergy in irritable bowel syndrome (IBS) is not new. However, recent evidence suggests significant reduction in IBS symptom severity in patients on elimination diets, provided that dietary elimination is based on foods against which the individual had raised IgG antibodies . like gluten-free diet could benefit non-celiac disease patient .	
	7- PSYCHOSOCIAL DYSFUNCTION	No comment XD	

Patients with IBS produce gasses in the same amount of normal people but the only difference it is more painful.

Microbiota helps in the production of vitamin K & in the absorption of vitamin B12. And we notice changes in the microbiota in IBS patients

MORE 2 PAGES U CAN DO IT (ง>ᴗ<)ง

Side Note: probiotics consists of the bacteria itself (such as Activia & yogurts), while prebiotics have the nutrients needed for the growth of bacteria.

✚ What are the Clinical features of IBS?

1. Younger patients and **women** are more likely to be diagnosed with IBS.
2. (2:1) female predominance in North America. (and the Mediterranean region)
3. In china male are more common to have IBS

✚ What are the Signs and Symptoms of IBS (depends on the site of GIT that is affected)?

1. Chronic abdominal Pain
2. Altered bowel habits
3. Diarrhea
4. Constipation
5. Others (Gastroesophageal reflux, dyspepsia, early satiety, nausea and noncardiac chest pain)

✚ What are the IBS DIAGNOSTIC CRITERIA?

Rome III criteria

✪ Recurrent abdominal pain or discomfort at least 3 days per month in the last 3 months associated with 2 or more of the following.

✪ Improvement with defecation.

✪ Onset associated with a change in frequency of stool.

✪ Onset associated with a change in form (appearance) of stool.

Interesting side note: Leukemia type M3 is treated by using vitamin A analogues, which completely cures Leukemia.

✚ DIAGNOSTIC APPROACH:

✪ Patients are identified as having a symptom complex compatible with IBS based upon the Rome III criteria

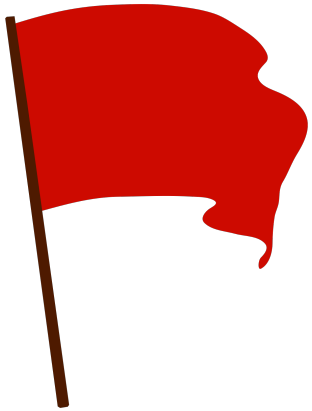
✪ Routine laboratory studies (complete blood count, chemistries) are normal in IBS.

✪ NO red flag symptoms: (Rectal bleeding, Nocturnal or progressive abdominal pain, Weight loss)

(NOTE: Red flag symptoms predict malignancies) iBS does not start in old age, usually in young age if patient is 40 then this isn't IBS. lower or upper bleeding isn't IBS, IBS does not cause bleeding, IBS won't cause significant weight loss and won't wake them up from sleep)

Show your **red flag** and get ready for the WAR !! W= Weight loss , A= abdominal pain , R = rectal bleeding

thanks for 434



When red flag symptoms are present we exclude IBS and they're:

1. Anemia especially in men because women are usually anemic due to the menstrual cycle (caused either by excess blood loss or malabsorptive disorders.)
2. Significant weight loss (10% of the body weight in a period of 6 weeks)
3. Bloody diarrhea.
4. Nocturnal symptoms.

✚ Management

IBS is a chronic condition with no known cure.
The focus of treatment should be on relief of symptoms and in addressing the Patient's concerns.

1. Therapeutic relationship
2. Patient education
3. Dietary modification (Find the certain food that triggers IBS and try to avoid them as much as possible.)
4. Psychosocial therapies
5. Medications: Antidepressant medication (the SSRI is the best because it has less side affects.)

Exercise can greatly reduce the symptoms of IBS.

DONE (ง˘ω˘)ง

✚ CHECK YOUR UNDERSTANDING ^^

1/ Which one of the following cells have been reported in the colon and small intestine in patients with IBS:
A/ Neutrophils
B/ Lymphocytes
C/ Monocytes
D/ Macrophages

2/ In which country male are more common to have IBS than women: "my fave Q XD"
A/ China
B/ United state
C/ North Africa
D/ Gulf countries

3/ Which one of the following in not a symptom of IBS:
A/ Diarrhea
B/ Dyspepsia
C/ Rectal bleeding
D/ Constipation

4/ Which one of the following treatments is the best for reliving the symptoms for a patient with IBS:
A/ Patient education
B/ Psychological therapies
C/ Antidepressants medication
D/ All of the above

5\ Imaging, stool analysis & endoscopy show normal findings in IBS.
A\ T
B\ F

6\ Patients with IBS produce more gases than normal people do.
A\ T
B\ F

B.1

A 2

C 3

D 4

A 5

B 6

✚ SAQs * u never know *

List your management plan for a patient with IBS.

1\ explains the disease to the patient and asks him to find the certain food that triggers his IBS and try to avoid them as much as possible.

2\ Psychosocial therapies.

3\ SSRI.

What is the significance of dietary modification in the treatment of IBS?

Some food triggers IBS and when the patient avoid them this help in reliving the symptoms.

What are the IBS diagnostic criteria?

Rome III criteria,

Recurrent abdominal pain or discomfort at least 3 days per month in the last 3 months associated with 2 or more of the following:

1/ Improvement with defecation

2/ Onset associated with a change in frequency of stool

3/ Onset associated with a change in form (appearance) of stool

ALL THE BEST

THANKS FOR CHECKING OUR WORK

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