Irritable Bowel Syndrome (IBS)

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Irritable bowel syndrome: the clinical approach

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ABSTRACT

Irritable bowel syndrome (IBS) is a chronic and debilitating functional gastrointestinal disorder which presents with abdominal pain associated with alteration of bowel habits. IBS is a common condition affecting 9-23% of the general population, being the 80% female, with considerable impact on quality of life and health care costs. The exact pathogenesis of IBS remains elusive, but is clearly multifactorial and includes environmental and host factors. Management of patients with IBS is challenging since diagnosis and treatment could require several approaches with unsatisfactory results. In any case, the diagnosis of IBS is based on the positive identification of symptoms consistent with this condition and by excluding an underling organic disease. Before choosing therapeutic options, a strong reassuring physician-patient relationship is crucial. The therapeutic approach of IBS may consist of both non-pharmacological therapies and pharmacotherapy and should be based on prevalent symptomatology. Lifestyle modifications such as stress reduction and increased physical activity seem to be useful to improve symptoms and should be encouraged. The same for dietary modifications that represent an important first-line therapeutic option. The pharmacological treatment should take into account the predominant symptom and test one drug at a time with a predefined time point for effectiveness evaluation and dosage adjustment. This clinical review offers an updated overview on epidemiology, pathogenesis, diagnosis and treatment of IBS.

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KEY WORDS: Irritable bowel syndrome - Constipation - Diarrhea - Abdominal pain.

IBS

- **Definition**: A chronic gastrointestinal disorder that affects the large intestine causing diarrhea, abdominal pain, cramps, bloating and flatulence.

- presence of abdominal pain associated with alteration of bowel habits without an underlying structural pathology

- The condition affects 25% of otherwise healthy individuals at any one point in time.

- 80% female, with considerable impact on quality of life and health care costs.

IBS

IBS/ Causes

- The precise cause of IBS isn't known.
- The factors that are thought to be involved in its pathogenesis are **heterogeneous**; environmental factors and host factors.
- Problems with brain-gut interaction.
- stressful or difficult early life events.
- certain mental disorders, such as depression and anxiety.
- Bacterial infection.
- Small intestinal bacterial overgrowth (SIBO).
- food intolerances or sensitivities, in which certain foods cause digestive symptoms

IBS/ Symptoms

- **In most cases, IBS presents as a chronic relapsing disease in which symptoms may change over time**
- Stomach pain or cramps – usually worse after eating and better after the stool.
- Bloating – your tummy/ stomach may feel uncomfortably full and swollen.
- Diarrhea – you may have watery stool and sometimes need to use the bathroom suddenly
- constipation – you may strain and feel like you cannot empty your bowels fully.
- Tiredness and a lack of energy.
- Backache
- Bowel incontinence.

- **There may be days when your symptoms are better and days when they're worse (flare-ups). They may be triggered by food or drink.**

IBS

- **IBS is divided into four subgroups:**

1- IBS with constipation (IBS-C).

2- IBS with diarrhea (IBS-D).

3- IBS with a mixed pattern (IBS-M) of constipation and diarrhea.

4- unclassified IBS (IBS-U), without any of the previous symptoms.

IBS/ Diagnosis

- Doctors review your symptoms and medical and family history and perform a physical exam.
- May order tests to rule out other health problems.
- **Review the symptoms; two out of three.**

- Your pain is related to your bowel movements. For example, your pain may improve or get worse after bowel movements.
- You notice a change in how often you have a bowel movement.
- You notice a change in the way your **stools** look.

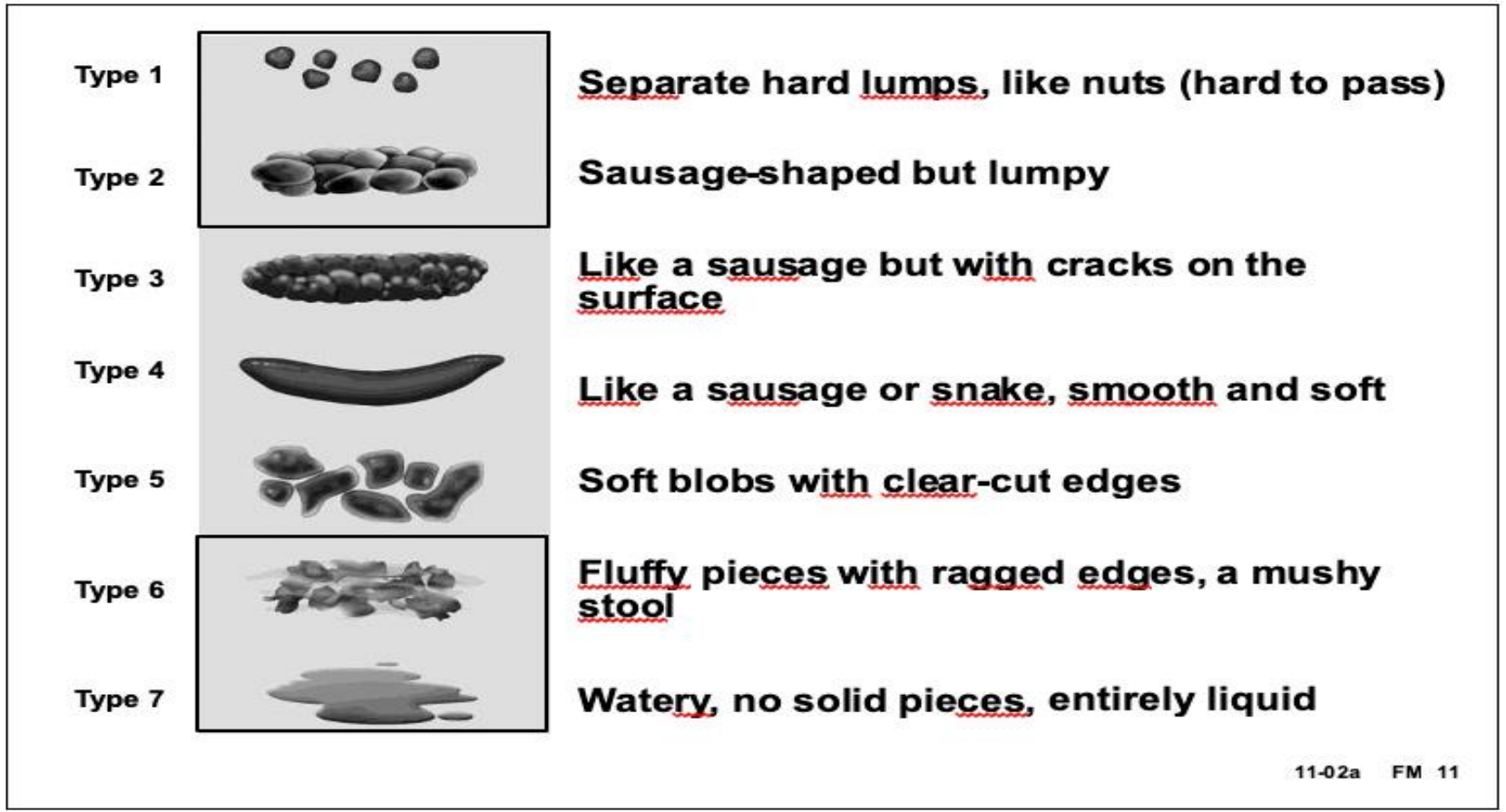
IBS/ Diagnosis

- **Also:**
- How long you've had symptoms; if
- you've had symptoms at least once a week in the last 3 months.
- your symptoms first started at least 6 months ago.
- The diagnose IBS even if you've had symptoms for a shorter length of time.

There is no specific test to diagnosis of IBS, yet Blood test and Stool test.

IBS/ Stool

- Solid waste that passes through your rectum as a bowel movement. Stools are undigested food, bacteria, mucus, and dead cells. Also called feces.



IBS

- **Treatment**:
- Despite the relatively high prevalence IBS remains an important medical challenge in term of diagnosis and treatment.
- There's no cure, but diet changes and medicines can often help control the symptoms.
- Changes in what you eat and other lifestyle change, medicines, probiotics, mental health therapies or drug treatment.

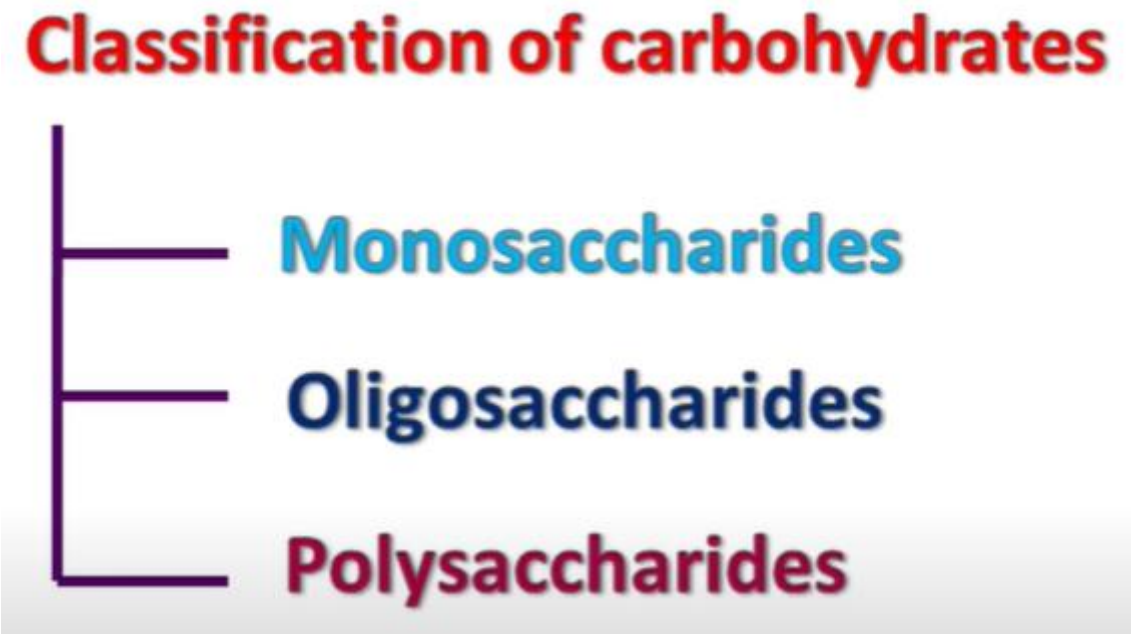
IBS

- **Lifestyle changes**

- Low FODMAP.
- Probiotics

Low FODMAP.

- FODMAP stands for, fermentable oligosaccharides, disaccharides, monosaccharide and polyols. Which are short-chain carbohydrates that the small intestine absorb poorly.
- **Saccharide means sugar.**



Low FODMAP.

- **Food Examples:**
- **Oligosaccharides:** wheat, rye, nuts, legumes, artichokes, garlic, and onion
- **Disaccharides:** lactose-containing products such as milk, yogurt, soft cheese, ice cream, buttermilk, condensed milk, and whipped cream
- fructose-containing foods, including fruits such as apples, pears, watermelon, and mango and sweeteners such as honey, and high fructose corn syrup.
- **Polyols:** sorbitol (alcohol sugar) in apples, pears, cauliflower, mushrooms.

Low FODMAP.

- **What effects do FODMAPS have on the digestive system?**

- FODMAPs are short-chain carbohydrates (sugars) that are highly fermentable, thus which means that they go through chemical changes in the GI system, and are poorly absorbed during digestion.

- When FODMAPs reach the colon (large intestine), bacteria ferment these sugars, turning them into gas and chemicals.

- This stretches the walls of the colon, causing abdominal bloating, distension, cramping, pain, and/or changes in bowel habits .

- FODMAPs are not unhealthy or harmful, but may exacerbate GI symptoms in those with sensitive GI tracts.

Low FODMAP.

- **Diet principles:**

- Eliminating or restricting FODMAPs from the diet may greatly improve symptoms of IBS and other functional GI disease.
- The low FODMAP diet can be used alone, or side-by-side with medications for the treatment of IBS.
- While the low FODMAP diet has been studied mostly in IBS, it is often used for other GI conditions e.g. celiac disease and small intestinal bacterial overgrowth.
- **The low FODMAP diet doesn't help everyone !!**

Low FODMAP.

- There are three phases of the low FODMAP diet:

1) Elimination.
2) Reintroduction.
3) Personalization.

Low FODMAP.

- During the **elimination phase**, which lasts 2-4 weeks, all FODMAPs are taken out of the diet.

- If symptoms are significantly improved with the elimination phase, patients will start the **reintroduction phase**, where groups of FODMAPs are added back in one at a time.
- Once it is determined which FODMAPs cause symptoms, many patients avoid these foods, but still ingest other FODMAPs on a regular basis.
- Following this **personally** developed Low-FODMAP plan.

Low FODMAP.

- Portion size matters when it comes to FODMAPs; high vs. low in FODMAP.

	Grains	Fruits	Vegetables	Dairy / Plant-based alternatives	Proteins	Beverages
High FODMAP	Wheat Rye Barley	Apples/apple juice, Apricot Blackberries Cherries Dates Grapefruit Mango	Artichoke Asparagus Cauliflower Garlic Leeks Mushrooms (button, portabella) Onion/shallots	Coconut milk (in the carton) Frozen yogurt, Ice cream, Milk Soft cheese Soy milk Yogurt	Most Beans/Legumes Processed meats*	High fructose containing sodas and juices Rum Tea: Chamomile, oolong, fennel, & chai

Low FODMAP

Low FODMAP	Corn tortillas/chips	Banana (unripe)	Bok choy	Almond milk*Cheese (most)	Beans: edamame lentils, Canned/rinsed: chickpeas	Alcohol: wine (most)
	Grits	Grapes	Broccoli	Coconut yogurt	Beef	beer
	Gluten free-pastas	Kiwifruit	Carrots	Hemp milk*	Chicken	spirits
	crackers and breads*	Lemon	Chives	Lactose free- ice cream	Egg	Coffee
	Oatmeal	Lime	Cucumber	milk yogurt*	Fish/Seafood	Sucrose-sweetened or die soft drinks
	Potato	Mandarin orange	Eggplant	cottage cheese	Pork	Tea (except those listed above)
	Popcorn	Orange	Kale		Turkey	
	Rice	Papaya	Lettuce		Tempeh*	Water
	Sourdough	Pineapple	Mushroom (oyster)		Tofu-firm	
			Olives			